

Martin Butler, Sina Farzin
Michael Fuchs, Fabian Hempel (eds.)

COMING TO TERMS WITH A CRISIS

CULTURAL ENGAGEMENTS
WITH COVID-19



[transcript] Culture & Theory

Martin Butler, Sina Farzin, Michael Fuchs, Fabian Hempel (eds.)
Coming to Terms with a Crisis

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Contents

Acknowledgments	7
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Coming to Terms with a Crisis

Introduction

<i>Martin Butler, Sina Farzin, Michael Fuchs and Fabian Hempel</i>	9
--	---

Pandemics Between Material Causes and Figurative/Ideological Interpretations

<i>Małgorzata Sugiera</i>	21
---------------------------------	----

Depicting SARS-CoV-2

A Weird Icon of (and for) the Anthropocene

<i>Michael Fuchs and Martin Butler</i>	39
--	----

Viral Commemoration

Towards a Typology of COVID-19 Memorials

<i>Ingrid Gessner</i>	59
-----------------------------	----

Corona Fictions Anthologies

On the Compilation of Hispanophone and Francophone Corona Fictions During
the First Lockdown

<i>Yvonne Völkl</i>	91
---------------------------	----

Fiction as a Tool to Imagine the Pandemic

Insights from German, British, and US-American Print Media

<i>Fabian Hempel and Sina Farzin</i>	115
--	-----

A Year of “Very Historic Breakthroughs”?

Scientific Breakthrough Claims and Narratives in the Public Reporting of Coronavirus
Research in 2020

<i>Anton Kirchhofer</i>	139
-------------------------------	-----

Contagious Economic Failure?
Discourses Around Zombie Firms in COVID-19-Ridden Germany and Italy
Till Hilmar, Rocco Paolillo, and Patrick Sachweh169

“Vacuna o muerte”
Latinx Political Cartoons as Vehicle to Raise COVID-19 Vaccination Awareness
Anna Marta Marini193

Donald Trump’s Viral Narratives and Shifting Pandemic Communication
A Search for Playful Affordances (2014–2021)
Sara Polak219

Confronting and Assuaging Pandemic Anxieties Through Horror Media in Christina Henry’s *The Girl in Red*
Alena Cicholewski235

Literary Reflections on the Institution of Science and COVID-19
Fabian Hempel253

A World After the Pandemic
COVID-19 Narratives, Environment, and Histories of the Future
Jim Scown, Keir Waddington, and Martin Willis277

About the Contributors301

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Coming to Terms with a Crisis

Introduction

Martin Butler, Sina Farzin, Michael Fuchs and Fabian Hempel

“Describing Covid-19 as a crisis,” Paul Frosh and Myria Georgiou note in an introduction to a special issue of the *International Journal of Cultural Studies*, is “a designation so obvious and unremarkable (unlike the pandemic itself) as to raise no difficulties: just as one can say ‘the Covid pandemic’ in everyday conversation, one can also say ‘the Covid crisis’ without provoking surprise or disagreement” (2022, 234). However, this understanding of COVID-19 having unleashed a crisis not only permeates everyday discourse: when browsing through academic publications on COVID-19, one does not have to search long to be confronted with various uses of ‘crisis.’ For example, in their introduction to *Sounds of the Pandemic*, Maurizio Agamennone, Daniele Palma, and Giulia Sarno proclaim the pandemic “a truly global crisis” that “has directly affected the lives of a large portion of the world’s population within a short time and in homologous forms, by virtue of an unprecedented overlap between the speed of contagion, the spread of information through mass media channels, and the political, technological, and social responses” (2023, 2). Similarly, Tapas Kumas Koley and Monika Dhole maintain that “[t]he world was not ready to face such a crisis of such proportions” (2023, 1). However, few writers make explicit what crisis they refer to. Admittedly, three of us could be charged with having committed the same fallacy (Butler et al. 2021), as we have discussed Anthony Fauci and Christian Drosten as icons in times of crisis without clarifying what this crisis exactly is or what it implies.

As Frosh and Georgiou (2022) rightly point out, such an uncritical acceptance of COVID-19 as a crisis—that is, this naturalized assumption that COVID-19, as such, entails a crisis—asks for an exploration from the perspective of cultural studies. After all, a crisis does not precede its cultural construction; while any crisis produces a multitude of lived experiences, it is also a phenomenon that is culturally created; crises, Antoon De Rycker and Zuraidah Mohd Don maintain, are “socially produced and discursively constituted” (2013, 4).

Accordingly, an exploration of the constitution of COVID-19 ‘as crisis’ from the perspective of cultural studies may start by unearthing the various denotations and connotations of the term ‘crisis.’ To be sure, its use in everyday parlance is different

from academic discourse. In addition, ‘crisis’ has various meanings. In our particular context, the common use of the term refers to “an unstable or crucial time or state of affairs in which a decisive change is impending,” in particular “one with the distinct possibility of a highly undesirable outcome,” to quote one of the definitions provided by *Merriam-Webster*. In the academic context, David Bidney provides a useful definition, as he considers a cultural crisis a moment of “disingegration, destruction or suspension of some basic elements of sociocultural life” (1946, 536). A “cultural crisis manifests itself as a state of emergency brought about by the suspension of normal, or previously prevailing, technological, social or ideological conditions,” he continues and stresses that a crisis is “a state of transition, [...] an unstable or passing condition” (1946, 537–38; original in italics). Without diving deeper for the moment, the implementation of stay-at-home orders, lockdowns, and quarantines during the COVID-19 pandemic undoubtedly suspended life-as-we-knew-it and introduced a state of emergency. In addition, when conceiving of COVID-19 as a crisis, one might say it was a temporary event, possibly bracketed by the World Health Organization (WHO) declaring COVID-19 a pandemic on March 11, 2020, and ending the public health emergency of international concern (PHEIC) on May 5, 2023.

In a second step, Bidney also explains that there are different types of crises, from theoretical crises in certain fields of science and/or the academy to survival crises; he usefully adds the distinction between crises that entail “practical emergencies,” such as wars, and “axiological crises,” which result “from cultural causes, such as the assumed incompatibility of two or more cultural systems or conflicting social interests” (1946, 542–43). For individuals, such axiological crises may also implicate actual life-or-death scenarios, but on a broader cultural scale, these crises are of a rather abstract nature. Whereas most of the crises afflicting and affecting the Global North in the years preceding COVID-19 were, arguably, primarily rendered in political and/or economic terms (the Great Recession, the migration crisis in Europe, the environmental crisis, etc.), COVID-19 was also decidedly framed as a survival crisis.¹ All of these (and more) dimensions are intimately and intricately entangled in our age, which COVID-19 brought to the fore. Writing several years before the outbreak of COVID-19, David Quammen noted that the increasing number of spillovers and the attendant outbreaks of new diseases “are not simply *happening* to us; they represent the unintended results of things we are *doing*. They reflect the convergence of two forms of crisis on our planet. The first crisis is ecological, the second is medical. [...] Human-caused ecological pressures and disruptions are bringing animal pathogens ever more into contact with human populations, while

1 Of course, we do not mean to imply that human lives had not been at stake in those other crises, too.

human technology and behavior are spreading those pathogens ever more widely and quickly” (2012, 39).²

Since the WHO stopped labeling COVID-19 a PHEIC in May 2023 and since a growing number of experts in the field started considering it an endemic disease (e.g., Colarossi 2024; Jared 2023), the public attention to the virus has not only decreased significantly, but the discourse of crisis has also disappeared—or, rather, faded into what seems to be little more than the white noise of the current era’s global polycrisis (see Lawrence et al. 2024). The rhetoric of emergency has vanished from headlines and talk shows. Policymakers are no longer confronted with an extraordinary situation that forces them to make ad-hoc decisions (McCoy 2023); instead, they negotiate adequate responses of public health systems to a now ‘regular’ infectious disease. Indeed, most of the safety measures have disappeared, and we have been witnessing an all-too-swift return to carelessness—which is considered a relief for most, while others do not get tired of emphasizing that “SARS-CoV-2 still has some pandemic-y features. It is still highly transmissible and circulating widely in countries around the world, and it remains a major cause of death and disability globally” (Ducharme 2024). In early 2024, the WHO even insisted that “[w]e’re still in a pandemic,” which had “just entered an endemic phase [...]. COVID’s not in the news every day, but it’s still a global health risk” (Bartels 2024).

While scientific discourse and the public health sector are still (and probably will be for quite a long time) concerned with this limbo situation, and while there are still high death rates and innumerable long and post-COVID cases, in view of the public debate and overall media coverage, the emergency situation has come to an end. To be more precise: the narrative of crisis has largely been replaced by one of normalization, with the discursive turn from pandemic to endemic state serving as an appropriate ‘ending.’ In other words, what for the first two and a half years of the pandemic had served as a “pandemic illness narrative”—i.e., “a public narrative (that) draws on a communal set of stock narratives to tell its story [...], allow(ing) people to make meaning out of a collective historical event together” (McCoy 2023)—does not seem to be functional anymore. This might be due to some “narrative fatigue [...] born not only out of the relentlessness of the pandemic but the relentlessness of the ever-changing narratives that have accompanied it” (Mark Freeman qtd. in Pinsker 2022). It might also be due to the fact that such a narrative does no longer relate

2 In this context, it seems interesting that Bidney differentiated cultural from natural crises. Natural crises are “more or less beyond human control” (1946, 537; original in italics). Phenomena such as “floods, storms, earthquakes, drought, etc., tend to disrupt cultural routine and to produce states of emergency requiring desperate measures. Although the number and extent of such natural crises tend to diminish with the progress of science, there are always bound to be the inevitable biological crises which are an inherent part of our mortal nature as well as environmental catastrophes against which there can be no certain protection” (1946, 537).

to the everyday life experience of people, which is indeed felt to have gone back to established patterns and routines (McCoy 2023).

But it was not only the human body that was in crisis during the pandemic. With it, entire systems of health care and prevention were put under enormous stress. The strain put on medical systems, in turn, exposed a multitude of other crises (related to labor rights, politics, hospital infrastructure, supply chains, understaffing, and others). For instance, what in many countries turned into a ‘governing through decrees and executive orders’ revealed a crisis in governance. Moreover, the large-scale closures of businesses led to an economic crisis. At the same time, the suspension of international travel and cessation of business-as-usual seemed to provide temporary respite to a world confronted with an environmental crisis (which, to draw on Quammen, caused—or at least contributed to—the evolution of the new virus in the first place). From a sociological perspective, it is these simultaneous, disruptive effects on every aspect of social life that constituted the pandemic as crisis. Not only the medical threat, but the overarching refiguration of social routines and institutions shaped the critical moment. After all, “[p]roblems become crises [...] only when they move outside their own spheres and appear to endanger society at large” (Alexander 2019, 3). This process of what Jeffrey Alexander calls ‘societalization’ occurs when discursive and material resources are mobilized across different social spheres in response.

The diagnosis of the multiplicity of crises both constituted by and constituting the pandemic is revealing in at least two respects. First, it hints at the many different layers on which COVID-19 contributed to irritating taken-for-granted knowledge and practices, paving the way for pandemic illness narratives as sense-making tools in view of utter incomprehensibility. Second, and perhaps more importantly, the identification of a multiplicity of crises is indicative of the (specifically modern) conception that crisis is not an exception, but the rule (Koselleck 1973). In this sense, COVID-19 could be characterized as “a meta-crisis, a crisis-event which makes visible modernity’s general historical character as a perpetual crisis-condition” (Frosh and Georgiou 2022, 240; emphases removed). Accordingly, the state of emergency is set as default, and ‘crisis’ is increasingly perceived to be a mode of living that requires new strategies of resilience and adaptation in view of phenomena such as anthropogenic climate change and novel viral diseases and their pandemic spread. In this vein, Helmut Draxler suggests conceptualizing crisis as a “specific historical form” that modern societies draw on as a “particular mode of cultural self-conception and self-assurance” (2017, 231).³ Accordingly, crisis as a form provides a framework for meaning-making and identity formation, and not least for the legitimization of political interventions. Without denying the harsh realities of COVID-19, such an understanding of crisis may help emphasize the mutually constitutive relationship be-

3 All translations of sources in languages other than English are by the authors of this chapter.

tween the pandemic's material realities and its symbolic representation; it helps unravel the cultural performativity of the multiple illness narratives and the various ways of storytelling employed to render the pandemic intelligible.

In this sense, COVID-19—as a period of intertwined and overlapping crises—was indeed brought to an end culturally through a story of progress, which, as Dora Vargha (2016) puts it, regularly tends to “overwrite the ones of failure, of anonymous loss.” Likewise, its beginning was also marked by a range of different forms of cultural engagements—articulated in different media and distributed through different channels in different contexts while (co-)producing the situation of (perceived) crises. The pandemic, then, can be considered a nascent event shaped through various forms of cultural representation and performance across different media. Its narrativization in different cultural practices and forms of expression, which, as this volume illustrates, drew on a range of different topoi, symbols, metaphors, and figures, as well as on their media-specific aesthetics—from ‘outbreak’ scenarios to its ‘endemification.’

Our volume adds to the growing corpus of anthologies and collections of essays, of special issues and monographs that deal with cultural ways of engaging with the pandemic (e.g., Bruzzi and Biriotti 2022; Damrosch 2022; Ramírez Blanco and Spampinato 2023; Urban et al. 2021). Through its case studies, which cover different media, regions, and national contexts, it contributes to highlighting the diversity of forms of cultural expression and practice that emerged (or were revived) during the COVID years, while at the same time unraveling their context-specificity. The book results from a workshop held in the spring of 2022 as the closing event of a one-year subproject (“Pandemic Meets Fiction,” 2021–22) of the interdisciplinary research group “Fiction Meets Science,” which explored the complex relationship between science and society through cultural forms of representation (e.g., Farzin et al. 2021). During the pandemic, this complexity became particularly visible when the various ways of (ab)using scientific expertise in society, the diverse challenges of communicating research results, and the manifold connections and influences between science and other dimensions of social life, such as politics and the media, came to the surface in a perhaps unprecedented degree and temporal dynamic. “Pandemic Meets Fiction” examined cultural engagements with the pandemic as they appeared, ranging from memes of scientists in social media (Butler et al. 2021) and songs and music videos (Marini and Fuchs 2022) to late-night television (Butler and Fuchs 2025), alongside the examples of fiction, visual representations, and news media included in this volume. It allowed us to observe illness narratives in the making; to describe and analyze processes of their coming-into-being within the social dynamics of a (perceived) crisis; and to analyze the ways in which other forms of cultural expression served to, or were used as, means of grappling with the uncanniness of the pandemic.

The sub-project's closing workshop combined academic contributions from different disciplines and a screening of select episodes of the television docuseries *Charité Intensiv: Station 43* (ARD, 2021), which centers on a COVID-19 ward during the winter months of 2020–2021, accompanied by a discussion with the show's writers, Mareike Müller and Carl Gierstorfer. Like so many events, the workshop was moved to a remote format due to rising infection numbers in Germany during the first half of 2022. Accordingly, researchers and artists gave their presentations in a situation that was still evolving and shaped everyone's daily experience beyond specific scholarly or artistic interests. Since then, the observations and ideas about the cultural impact of COVID-19 have been elaborated on, discussed, and revised, thus being turned into the chapters of this volume.

The exploration of cultural engagements with COVID-19 starts with Malgorzata Sugiera's analysis of Lawrence Wright's report *The Plague Year* (2021), which reflects on the first year of COVID-19 in the US. She approaches the book as a prism to explore recent critical theories of contagious diseases in view of COVID-19, focusing on three dimensions: the futurity of pandemics, the historically changing connections between immunology and ideology in the formation of identities, and new perspectives on viruses and their material dimensions. In so doing, her contribution unravels the poetics and politics of epi- and pandemic imaginaries; how they become manifest in different media and genres with the help of metaphorical and narrative figures and tropes (such as the 'virus,' the 'outbreak narrative,' and the 'simulation'), thus acknowledging the world-making potential of these imaginaries in relation to other global challenges of the present (such as anthropogenic climate change). Eventually, Sugiera identifies how pandemics induce changes in our knowledge systems.

Michael Fuchs and Martin Butler's chapter focuses on the CDC illustration of SARS-CoV-2 as a weird icon of both the COVID-19 pandemic and the Anthropocene. After introducing the biomedical realities that the 3D illustration tries to capture and a brief sketch of how and why the depiction of SARS-Cov-2 went viral, the chapter turns to the aesthetics of the illustrations. The design taps into science-fictional tropes to capture the strangeness of the pandemic experience and to evoke cosmic dread in view of how the Anthropocene epitomizes the idea of connectedness, including the entanglements between viruses and humans.

Ingrid Gessner is concerned with ways of commemorating the pandemic. In her chapter, she takes a closer look at COVID-19 memorial projects and examines how they both draw on and modify the well-established repertoire of forms and items of commemoration. Based on an incredibly extensive archive of memorials (both implemented and in planning), Gessner continues her work on "trajectories of commemoration," which is "set into motion after crises that cause traumatic experiences" and which she originally identified in relation to 9/11 commemoration culture. Gessner incorporates different memorial constellations, ranging from (ephemeral) collective shrines via temporary installations and exhibitions

to permanent memorials to illustrate the interplay of the different temporalities inscribed into a highly dynamic social situation, on the one hand, and a memorial's implication of durability, on the other, and how the global, often digital experience of COVID-19 impacted commemoration culture.

Similarly, Yvonne Völkl is interested in how the pandemic was chronicled as it happened. Yet, her focus is not so much on explicit media of commemoration but on the historicizing potential of anthologies. To be precise, she analyzes francophone and hispanophone COVID-19 anthologies, all compiled during the first lockdown, scrutinizing how the editors frame their specific motivations for their anthologizing efforts while identifying the major topics, generic features, and narrative perspectives that characterize these anthologies. In so doing, her contribution interrogates a specific form of cultural sense-making and, perhaps more importantly, of archiving the pandemic through the medium of the literature anthology.

Sina Farzin and Fabian Hempel examine how references to fiction became a prominent feature in the quality press throughout the pandemic, especially during its first phase. Conceptualizing references to fiction as a discursive practice of meaning-making and coping with insecurity and uncertainty as the pandemic in its epistemological and cultural formation was constantly in the making, they do so by exploring the thematic and communicative features of such references in a text corpus consisting of pandemic-related articles primarily from the *feuilleton*, arts and culture, and political sections of select German, British, and US newspapers of record. One way of grappling with the pandemic was to hope and wait for the scientific breakthrough that would eventually provide humankind with a recipe to develop a vaccine and co-exist with the virus.

Anton Kirchhofer sheds light on this way of 'coming to terms with the crisis' through anticipation, as he scrutinizes the production and distribution of what he calls 'breakthrough narratives' in the public discourse on science during the first year of the COVID-19 pandemic. In his contribution, he analyzes different variations of these narratives, asks for the agents and media involved in their production and circulation, and examines their potential functions and effects. In so doing, he shows how breakthrough coverage, even though it constituted a highly contested field, indeed provided stories that helped make sense of the precarious situation.

Whereas Kirchhofer's analysis of breakthrough coverage focuses on the public discourse on science, Till Hilmar, Rocco Paolillo, and Patrick Sachweh turn to public debates around what is commonly referred to as 'zombie firms' during the first two years of the pandemic. In their comparative analysis of a selection of German and Italian newspapers, they trace the ideological implications of the trope of the 'zombie,' which, specifically in times that could quite easily be rendered in postapocalyptic terms, lends itself to epitomizing the 'illness' of society. They show how 'zombie' as a denominator charged with a range of implications and connotations revolving

around the notion of contagion was employed to negotiate and to both legitimize and criticize state interventions in the economic sector during the pandemic.

Within the heated public debate on COVID, its effects, and ways to defeat it, some voices were louder than others, some even remained unheard; information was spread unevenly, and access to it was not granted to everyone. When vaccinations started, this lack of information led to additional insecurities and unrest. Starting from this observation, Anna Marta Marini's chapter explores the role of popular cultural forms of expression in creating an awareness of the importance of vaccination among marginalized Latinx communities. Her analysis focuses on the Chicano cartoon artist Lalo Alcaraz and his role in vaccination campaigns. It shows how his works address the pandemic both through the prism of Latinx cultural traditions and in view of the structural violence against ethnic communities through institutionalized discrimination, which became particularly visible in the course of the emergency situation caused by COVID-19.

Indeed, the pandemic highlighted inequalities along the lines of race, ethnicity, class, and gender. And it equally highlighted the fact that political apparatuses were overwhelmed by a challenge of this proportion. In the United States, the Trump administration desperately tried to orchestrate, at least rhetorically, a myriad of measures to manage COVID-19. Trump himself, as Sara Polak shows in her contribution, benefited from this somewhat chaotic situation, as it catered to what she calls 'fuck-up-ability'—that is, "the possibility of acting that allowed him to spectacularly and cartoonishly mess up 'serious' politics and management of a public health crisis." The chaos of COVID-19, she argues, fit Trump's erratic political 'style' and provided him with a number of affordances he could employ for the staging of his persona.

In the first few months after the outbreak of COVID-19, it seemed as if the indeterminacy and unclearness of the lockdown experience could best be digested by resorting to stories that were already available and could be used to frame the unprecedented. Alena Cicholewski turns to this mode of 'coming to terms with the crisis.' In her essay on Christina Henry's 2019 novel *The Girl in Red*, she argues that a re-reading of Henry's horror story of a pandemic and its aftermath against the backdrop of COVID-19 allowed readers to use the novel as a frame of reference to make sense of the disintegration of everyday lives they faced. *The Girl in Red* is thus among those cultural representations that, albeit written or produced before the pandemic spread around the globe, bore a strong affective potential when re-read or re-watched shortly after its outbreak—such as Steven Soderbergh's 2011 movie *Contagion*, views of which skyrocketed early in 2020, and Albert Camus's classic *The Plague* (1947), which also had a 'comeback' that year.

Assuming that COVID-19 both deconstructed and reinforced the cultural idea of science's autonomy and social responsibility as its functional imperatives, Fabian Hempel draws on four works of pandemic fiction to rethink aspects of the social and epistemic constraints of science that the pandemic made visible. His readings of Al-

bert Camus's *The Plague*, Lawrence Wright's *The End of October* (2021), Orhan Pamuk's *Nights of Plague* (2021), and Ashoke Mukhopadhyay's *A Ballad of Remittent Fever* (2018) emphasize the struggles of scientists and medical professionals to understand the depicted disease outbreaks and how their interactions with other social institutions shape their ability to contribute to the broader societal response.

As Jim Scown, Keir Waddington, and Martin Willis show in the final chapter of this volume, the pandemic also served as a breeding ground for a number of future narratives inspired by the experience of what was felt to be an existential crisis. These narratives, different in their medial shapes and in their ideological underpinnings, set out to provide answers to the question of how to conceive of and live in a post-pandemic world, and how to face other (but related) global challenges such as anthropogenic climate change and a dramatically changing world of work, not least in view of what is often felt to be an unhinged spread of neoliberal capitalism. From a critical future studies perspective, then, their chapter adds to the understanding of the pandemic experience as a catalyst boosting the production of scenarios of and for the future.

Whether or not these future scenarios will help prepare for a next pandemic remains to be seen. Considering the speed and understandable relief at which people returned to their everyday lives, one may also doubt that there will be a close examination of the many social, economic, and political dynamics that this period unfolded or amplified. Since then, other global emergencies have (re-)emerged and attracted public attention, causing COVID-19 to fade into the background. In view of this collective forgetfulness, we believe, it is all the more important to archive the cultural forms of coming to terms with COVID-19.

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Pandemics Between Material Causes and Figurative/Ideological Interpretations

Małgorzata Sugiera

Paradoxically, during the long months of the COVID-19 pandemic, many people hoped for a return to normalcy and at the same time believed that what they were enduring belonged to those one-of-a-kind experiences that should deeply change their way of living. Today, without having undergone those radical changes that we hoped for, everything seems to have come back to business as usual. Indeed, the coronavirus has turned out to be not an epidemiological singularity but rather a globally registered new pandemic threat, one of many that emerge nearly every year (Jeffries 2020; Morens and Fauci 2020; Chakrabarty 2021a). These threats are caused not only by a wide variety of pathogens, representing different taxa, source hosts, modes of transmission, and clinical courses as well as global webs of travel and trade that help once local spillovers become new pandemics. The reduction and disruption of tightly entangled and complex ecologies have also increasingly spurred the emergence and evolution of new pathogenic strains. In the decade prior to the COVID-19 outbreak, many scientists and science journalists wrote about and cautioned against what they often called ‘a new pandemic age’ (Wolfe 2011; Quammen 2012). However, it only became common knowledge and a widely recognized threat after the last pandemic. Thus, it is important not only to look back at the first year of the COVID-19 pandemic when people struggled to come to terms with a supposedly new situation of living with a viral contagion that might stay with us far longer than previously thought but also to confront their reactions with scientific narratives, scripts, and metaphors to which they could resort to make sense of what they were going through. In what follows, while looking at how material causes of contagious diseases were apprehended and figuratively/ideologically interpreted in the light of the last pandemic, I try to tentatively solve the paradox of this one-of-a-kind experience that apparently quickly lost its transformative potential and faded away without leaving any visible trace.

Looking Back at the Last Outbreak

Quite a few books about viral contagion were completed or going to press when the COVID-19 pandemic struck in early 2020. As it seems, at that moment most authors were already aware of the fact that we need a lot of time to clearly see how the pandemic recast our apprehension of its immediate past, that of the first decades of the twenty-first century. Nevertheless, they had no doubt that it already was—and might forever remain—the defining experience of our time. Moreover, the experience in many ways would determine perspectives from which to look not only at similar historical plagues and their entanglements but also at historiography and historicity as such. For instance, Amitav Ghosh's book *The Nutmeg's Curse* (2021) demonstrates how the experience has already influenced approaches to broader colonial and decolonial processes. Hence, the author's decolonial undertaking, which begins on the Banda Islands in 1621, unfolds alongside his account of how COVID-19 progresses in New York City, and each narrative strand sheds light on the other. Similarly mindful of this latest contagion as a common experience, many books published in the early stages of the COVID-19 pandemic start with a preface to depict the still lingering shock and resulting lack of any comprehensive picture of the ongoing disaster, which at its beginning froze almost the whole world in place. As today's reading shows, that shock seemed to affect especially those authors who spent many years studying similar epidemiologic events and their reverberations on various fields and scales.

A case in point is the preface to Anjuli Fatima Raza Kolb's *Epidemic Empire* (2021), written when the author was quarantined. In her book, Kolb engages a rich and diverse archive of literary, medical, administrative, and military documents to decipher imperial disease poetics that then became a productive method in fighting terror and terrorism, in particular after 9/11. In the preface, "Politics and Scholarship in a Time of Pandemic," she capitalizes on her findings in order to draw the reader's attention to the newly evidenced fact that "[t]he effects of twenty-first-century Islamophobia have now reached far beyond the West and are deeply embedded in the global response to the COVID-19 pandemic" (Kolb 2021, xiii). However, based on her research, Kolb points to these recent proofs of the pervasive force of epidemic imaginary in the hope that "something in this book helps them [young researchers and students] to make sense of the 2020 pandemic not as an isolated disaster, but as a turning point in the history we want to write and the world in which we can live" (2021, xv). I do not read these words as an encouragement to the reader to focus on etiologies of illnesses in order to make sense of the recent pandemic in the context of similar historic global plagues and diseases, understood mainly as biomedical phenomena; rather, Kolb shows how epidemiology's discursive power politically maps bodies, redefines spaces and behaviors. In other words, she asks us to watch out for how the 'normal,' which we so much want to come back to—the normal instantiated

also in the (re)presentations of COVID-19 which still keep cropping up—will influence our possible future.

I have singled out Kolb's preface because I am not entirely convinced by the argument that various global and local responses to the COVID-19 pandemic have brought about entirely new, emerging phenomena, behaviors, and practices, and initiated yet-unknown multi-pronged processes, which are still unfolding and waiting to be made sense of. I would rather argue that the pandemic has made salient these specific aspects of global life under medicalized regimes and their political consequences that have been noticed since at least the HIV/AIDS pandemic, often analyzed as an unprecedented conflation of disease, bodies, and a wide range of media; a conflation still not fully comprehended (Patton 2002; Wald 2008; Ghosh 2023). That is why in this chapter, I mimic Kolb's gesture by using Lawrence Wright's report *The Plague Year* (2021) about the first year of COVID-19 in the United States as a perspective through which to read recent critical theories of contagious diseases in a relatively new light. To this end, I have chosen three separate, but closely intertwined, thematic approaches that help identify emerging concepts of contagious diseases and may be used as an appropriate method to understand "a turning point in the history we want to write and the world in which we can live" (2021, xv), as Kolb would have it.

By way of introduction, I address the futurity of pandemics and take a closer look at what constitutes the present space of both possible future contagion developments and pre-emptive strategies. What epidemiologists see today and try to prevent as a future development differs noticeably from what twentieth-century epidemiology and Priscilla Wald (2008) have rightly named 'outbreak narratives.' Then, I show how select authors seek to entangle the generic conventions of both epidemiological discourses and figurations/metaphors of the past in order to highlight historically changing relations between immunology and ideology in the formation of communal identities. This not only helps me address emerging approaches to pandemics as part and parcel of increasingly visible anthropogenic ecological changes and challenges, but it also sets the scene for the last section of this chapter, which focuses on shifting images of viruses and their new materializations. They demonstrate not only that how we see and apprehend viruses depends on larger cultural discourses and imaginaries. Their being products of a wide range of techno-scientific mediations should as well be taken into consideration while approaching pandemics, their materializations and interpretations. In other words, new approaches to viruses that emerged in the wake of the COVID-19 pandemic may be justly read as a visible sign of ongoing changes at the very core of Western knowledge system, still defined as objective and universal.

Performing Future Pandemics

The Plague Year grew out of an idea for a major article on the pandemic for the *New Yorker*—for which Lawrence Wright has been writing for many years. Considering that COVID-19 pandemic has affected almost every part of US society, the author contacted and interviewed more than a hundred people representing different sectors of the population to provide an overview that helped him reconstruct how the pandemic started and unfolded week by week. He not only drew on many sources but also tried to provide contrastive narratives about how people coped with the deepening crisis. At one moment, events from Wright's life become closely entangled with his efforts at reconstructing the first year of the outbreak in the US. Incidentally, in April 2020, *The End of October*, his novel about a speculative pandemic that causes a global catastrophe, came out at the peak of the first COVID-19 wave. Since Wright's pandemic unfolds in similar ways as the real one did, many readers and critics tended to believe that the author had somehow and before anyone else foreseen what would happen in Wuhan and afterwards. In response, Wright undercuts these beliefs and explains in *The Plague Year*: "The reason the novel parallels reality is that I read the playbooks, I watched the tabletop exercises, I talked to the experts. [...] I just lifted the expert reports and turned them into fiction" (2021, 155). I am not so much interested in whether Wright rightly accuses the Trump administration of not trusting its own public health officials and focusing on controlling the narrative instead. What is much more important for me is a yawning gap between the playbooks and tabletop exercises, mentioned by the author when commenting upon his novel, and the administration's main narrative. As it seems, there are two different medial and generic approaches: firstly, outbreak narratives, based predominantly on the investigation of written epidemiological documents of all sorts about important past infections; and secondly, epidemic modeling in-silico, together with simulation exercises, two so-called anticipation techniques that allow to immerse in the 'reality' of future disasters in order to mitigate their catastrophic effects (Caduff 2015; Keck and Lachenal 2019).

In her seminal book *Contagious* (2008), Wald introduces and defines the outbreak narrative as an evolving story of disease emergence. The story has a formulaic plot that consists of three basic parts: 1) identification of an emerging infection and its patterns; 2) discussion of the global networks through which it travels; and 3) an account of how the epidemiological work unfolded and ended with the confinement of the disease. As the author insists, it is crucial to understand both the appeal and persistence of this narrative in twentieth-century epidemiology because it has the power to systematize "individuals, groups, populations, locales (regional and global), behaviors and lifestyles" (Wald 2008, 3). Thus she reads the outbreak narrative as an important biopolitical technology that is a function of social interaction as well as a form of regimented social behavior to reinforce the governing authority.

For this reason, drawing on a host of examples of literary and cinematic works, Wald demonstrates how outbreak narratives shaped various accounts of the twentieth-century contagions, up to SARS in 2003. Significantly for my argument, she stresses that “epistemologists build on precedents from previous outbreaks that they hope will make future outbreaks comprehensible, and ultimately preventable, or at least containable” (Wald 2008, 19). Crucially, the role of epistemologists was not limited to reading and writing the epidemic as a story of detection with predictive value; their story also intentionally related to a recognizable literary genre: the classic detective novel. According to Wald, this is best exemplified in the mid-century popular media coverage of the Epidemiological Investigation Service (EIS), then newly created at the Centers for Disease Control and Prevention (CDC). Not only were the EIS officers called ‘disease detectives’ in the press, but also brief accounts of mostly mysterious outbreaks they succeeded in solving appeared with titles such as “The Case of the Camp Sewage” and “The Case of the Carrot Salad,” which purportedly evoked Arthur Conan Doyle’s famous detective stories (Wald 2008, 23–24). Just like Sherlock Holmes, the epistemologists of the second half of the last century read and wrote about contagious diseases in a deductive and exploratory manner to make scientific and social sense of unexpected events. However, unlike the outbreak narrative, epidemic simulation needs to be acted out rather than narrated or described. This visibly shifts the focus from the discursive to the performative, from the written narrative to the embodied culture of the last few decades, in which experiencing becomes a privileged way of knowing. It does not even change when simulation is modeled on fictional narratives as was, for instance, the case of the simulation exercise of the 1998 Ebola outbreak in the US, based on Richard Preston’s thriller *The Cobra Event* (itself half-fictional, half-factual). After all, simulation addresses the whole human sensorium in a far more complex way than a written narrative.

The question of how simulations of epidemics that mostly draw on fictional scenarios have transformed the concept of contagious disease, its outbreak, common patterns, and efficient ways of confinement has been recently formulated by Frédéric Keck and Guillaume Lachenal in their chapter “Simulations of Epidemics” (2019). Anticipation techniques, transferred to civil sectors after the end of the Cold War, have shifted rationalities of risk management from prevention to preparedness. As Keck and Lachenal argue, the results of this shift seem to grow in importance: “[W]e believe that simulation of epidemics will proliferate as techniques of neo-liberal government in the years to come” (2019, 26). What is even more significant here, to successfully immerse in a world transformed by a contagious disaster in order to mitigate its catastrophic effects, the techniques have to stimulate the participants’ imagination in such a way as to let them believe in the ‘reality’ of the simulated situation. Otherwise, the participants, in most cases decision makers at different organizational levels, will not be able to rightly and quickly enough assess the critical vulnerabilities of a mock-up social life and the availability of its technological infrastruc-

tures. In other words, the simulations have to anticipate an uncertain future as the past—as something that has already happened. This does not, however, mean that simulations as pre-emptive strategies are any better attuned to unexpected dimensions of responses to an epidemiological situation than outbreak narratives based on the memory of past epidemics. They also have their drawbacks.

When looking at the anthropology of epidemics in the context of the complexity of networks of their livelihoods, Hannah Brown rightly points out that “disease control often centres on activities that aim to simplify different forms of complexity” (2019, 123). It is not only that—as Keck and Lachenal emphasize—“the aim of simulations is to reduce the uncertainty by producing in the individual body and in the collective team standardised habits”; simulations have also “become a pre-packaged, standardised, normative exercise, with measurable and reportable outputs and indicators” (2019, 34). Therefore, like outbreak narratives, they often dissuade us from examining the framework itself, of looking closely at the political circumstances and cultural fears that make these narratives and simulations seem so urgent and compelling. For, as Diana Taylor emphasizes in her *Performance*, “[o]ne can only prepare for things one already imagines, so scenarios tend to reinforce certain ways of envisioning conflict and resolution” (2016, 140). In other words, in the case of both outbreak narratives premised on past communicative diseases and in simulations anticipating the coming contagion the way of framing a given epidemic needs to be questioned on a metalevel so that it can be clearly seen with a shifting set of attendant ideas, addressed fears, and associated practices.

Framing Past Pandemics

For a long time, plagues have been regarded as not only shared experiences on multiple levels but also great equalizers. For instance, seeking similarities between the coronavirus pandemic and historical outbreaks, the Nobel Prize-winning Turkish novelist Orhan Pamuk observed in his essay “What the Great Pandemics Novels Teach Us” (2020): “The terror we are feeling [...] excludes imagination and individuality, and it reveals how unexpectedly similar our fragile lives and shared humanity really are.” However, the further development of the COVID-19 pandemic clearly undermined such a belief. In *The Plague Year*, Wright points out, for example, that the US experienced widely different pandemics in 2020. As he explains, each generation had its own pandemic thereat. Although the general fatality rate was two percent, for people aged eighteen and under it was far less than this, while among those over seventy, it reached almost 18 percent (Wright 2021, 128). In addition, Wright includes race as a significant factor in those estimates: “For every 10,000 Americans, there were 38 coronavirus cases; however, for whites, the number was 23; for Blacks, it was 62; and for Hispanics, it was 73” (2021, 136). Yet he keeps track

of these statistics, fully aware that there were—and still are—many other divisions, also those that did not warrant recording. That is why he also points to the disparity in the medical treatment received by Americans depending on their race and influence. It is a well-documented fact that minorities suffer from comorbidities as they live in worse health conditions than the white population. However, what needs to be taken into account are not only broadly understood health conditions and public health infrastructure; Wright also mentions other statistics: only one in five African Americans and one in six Hispanics could work remotely. It means that they were more exposed to the coronavirus at their workplace and on their way to and from it than those working from home. Moreover, in his report Wright mentions, for instance, George Floyd's murder and the events in Tulsa in June 2020 and a century earlier, considering these to be of equal significance for the eponymous plague year. That is why, as I posit, *The Plague Year* may be read as symptomatic of a much broader turn in the critical studies that at least since the beginning of the new century have been merging analytical methods of literary criticism and visual or media studies with epidemiological approaches. Or, rather, they have increasingly demonstrated the inadequacy of the narrowly understood epidemiology in coping with new viruses that emerge partly because of the changing relations between humans and their environment. Since at least the HIV/AIDS epidemic, it has become more and more visible that contagious diseases are not great equalizers. Neither can they be regarded as forces that act independently of human agency. That is why two decades ago, when summing up her research on global HIV/AIDS policies in the last chapter of her *Globalizing AIDS*, Cindy Patton coined the term “a dying epidemiology” (2002, 114). I am going to support her claim by taking a closer look at two more recent studies of epidemic and epidemiological discourses that refer back to the times before the birth of epidemiology.

Cristobal Silva defined the aim of writing his *Miraculous Plagues* in the following way: “[T]o bring the analytical methods of literary criticism and epidemiology to bear on one another” (2011, 3). However, he starts with a close reading of John Snow's report of the cholera outbreak in London in 1854. Although it was written before the official birth of epidemiology and its narrative conventions, Silva reads it as a demonstration of a similar intention to pinpoint the geographical source of illness, investigate the movement and patterns of pathogens, and adequately map individual and social bodies and their behaviors. This means that he deliberately does not focus on a biological history of epidemics but rather undertakes a broader inquiry into the way epidemiology shapes communities and their social and cultural practices: “A study of epidemics would highlight the historical effects of disease on specific populations, while a study of epidemiology is concerned with how those effects are narrated as a means of politicizing behaviors, and reconceptualizing community” (Silva 2011, 12). Clearly, not only in the case of Snow's report, Silva is more interested in narrative conventions than in disease as such, its transmission and means of containment.

Mindful of that, Silva offers what he calls a productive concept of anachronism that “provides for a fruitful analysis of the colonial era precisely because it defamiliarizes narrative histories that segregate medicine, theology, and law into their own specialized modern disciplines” (2011, 12). Moreover, after being defamiliarized from its modern medical and statistical functions, such an analysis could not only be easily approached as a narrative but also as a set of written documents of a deeply local and embodied historical experience of illness. This is one of the reasons why the author of *Miraculous Plagues* firmly opposes the ‘virgin soil thesis,’ premised on what has been recognized as biological differences, to a stark immunological distinction between settlers and indigenous bodies during the epidemics among Native Americans in 1616–19. He compares these epidemics with the 1721 smallpox outbreak in Boston, which mainly affected the white population. This also proves how wrong John Winthrop was in 1629 to identify earlier plagues as “miraculous,” sent by God to “vacate” New England for Puritan migration. Silva deliberately puts Winthrop’s phrase in the title of his study, for it clearly expresses his intention “to move away from metaphor, or to consider how metaphors and representations shift over as a reflection of biological processes” (Silva 2011, 15). What Silva calls “a reflection,” Kolb, while referring to *Miraculous Plagues* in her *Epidemic Empire*, defines more rightly as a form of “emplotting” (2021, 19). Plots, narratives, and different genres of epidemiologic writing not only offer a persuasive set of conventions to represent and interpret epidemics, they also create pathogenic images and imaginaries in which a crucial role belongs to the inhuman as an inevitable force of destruction—as God’s, evil’s, or nature’s violence. This specific disease poetics has often become a productive metaphor for defining and combating political enemies. Historically changing forms of ‘emplotting’ make these metaphors emphatically material. To support her thesis, Kolb refers to Heather Schell, who called these forms of emplotting “an extremely powerful tool for creating master narratives about the world” (qtd. in Kolb 2021, 19). This is another proof that, indeed, more often than not, the Global North interprets the past and imagines a future through the lens of epidemics.

In her study of the complex relationship between colonialism, contagion, and terror in the last two centuries, Kolb sees the insurgent violence of epidemics not only as the ontological foundation of the eponymous empire. Already in the “Preface,” she clearly states the main aim of her undertaking—to “put a stop to the deployment of disease metaphors and the racial and economic injustices they proliferate” (Kolb 2021, xv). To demonstrate how the mobile metaphorical language has assisted in the critical projection of global space as the body biopolitics, Kolb refers to W. J. T. Mitchell’s call to “a reframing of terrorism as a public health crisis” in the aftermath of 9/11 (qtd. in Kolb 2021, 16). Although in *Epidemic Empire*, the author undertakes historical research in the context of the most recent events—9/11 and COVID-19—she nevertheless employs Susan Sontag’s well-known understanding of illness as a metaphor. Explicitly writing about this connection, Kolb emphasizes,

“Sontag’s position on the inevitability and immutability of an ordering of society based on an analogy to the human body is a crucial feature of how I understand the process and outcomes of epidemic figuration” (2021, 17). I can only agree that in *AIDS and Its Metaphors* (1989), Sontag offered a more flexibly operating definition of metaphor than the Aristotelian concept which she drew on in her *Illness as Metaphor* (1978). Kolb’s study demonstrates also that this definition remains fully operative in reading historical discourses and their written manifestations, both fictional and factual. However, it could be seriously doubted whether Sontag fully grasped the novelty of the HIV/AIDS epidemic in her 1989 essay, for the epidemic was recognized not only as new, but even of a new kind.

In her *Globalizing AIDS*, Cindy Patton insightfully points at this paradigmatic change: “For individual participants in both local and global political processes, AIDS activism has been an important and world-changing experience of questioning and reshaping how body-knowledge is given to, reinterpreted within, and applied to read disease processes” (2002, xvi–xvii). This means that not only biological data interpretation and representation but also biological processes as such have come to be seen as a form of ‘emplotting.’ Suffice it to recall David Crimp’s claim that “AIDS does not exist apart from the practices that conceptualize it, represent it, and respond to it. We know AIDS only in and through those practices” (qtd. in Wald 2008, 215). The practices Crimp refers to materialize the disease itself. They determine how it is represented, or made into a metaphor, materialized in and by the epidemiological narrative. The very aim of AIDS activism has been to make the medical world accept HIV symptoms as a disease syndrome, to assign a name to this syndrome in order to initiate a search for a pathogenic cause outside the sick bodies. This has not only initiated a paradigmatic change in how epidemics are approached today; it has also brought about an increasing ‘denaturalization’ of epidemiological discourse through the uncovering of the medicalized framework on which it is premised. Patton sums it up as follows: “The methodical nature of Western medicine and the degree to which modern society is medicalized means that without the procedures and sanctions of official medicine, expressions of bodily experiences and complaints are not considered real, sometimes not even by the sufferer” (2002, xxiii). A new kind of epidemic, instantiated by HIV/AIDS in the 1980s, has put into question both the outbreak narrative and the very concept of epidemiology. The subsequent viral epidemics, mostly of zoonotic nature, have, among others, resulted in a new understanding of relations between humans and their environment, which could be seen as part and parcel of much broader anthropogenic environmental alterations.

Alter-Pandemic

Wright's *Plague Year* demonstrates that the US was not able to contain the disease through conventional public health measures not only because of the federal government's 'no-plan plan,' bureaucratic inertia, and scientific incompetence; their inefficiency was also caused by the very nature of the contagion. As it spread in large part by asymptomatic transmission or by patients with mild symptoms, exactly like the common cold, COVID-19 made ineffective the already proven epidemiological methods of identifying superspreaders, contact tracing, isolation, and quarantine. Although Wright undoubtedly sees the need for a novel approach to the challenges posed by the new disease, he stops short of drawing far-reaching conclusions. Admittedly, in the "Epilogue," he juxtaposes the United States' reaction to a possible foreign adversary invasion with the COVID-19 contagion, only to conclude that "our invader is not a human adversary; it is nature that we struggle against, and in the face of this conflict there is a curious passivity" (Wright 2021, 269). He blames decades of cutbacks in the US healthcare system rather than centuries of conceptualizing contagious diseases as a part of nature entirely exempt from human agency. In this respect, his novel *The End of October* depicts a different situation.

Wright's fictional virus is far deadlier than the real one. Although it causes a rather typical outbreak in Indonesian Kongoli, the author refers to the tropical imaginary only in order to better prepare the reader for the final surprise—Kongoli turns out to be one of those archaic viruses that had been frozen in Siberian tundra and brought back to life by global warming. Dr. Henry Parsons from the CDC, the protagonist of the novel, goes there with a SEAL team, while the world barely survives on the edge of collapse, immersed in a total bio- and cyberwar. Parsons is fully aware that his search for a source of an almost forgotten Kongoli pandemic has no pragmatic reasons. That is why he considers himself more of an historian than epidemiologist. When he and the SEALs find a contaminated mammoth's body, ripped apart by polar bears, one of the soldiers asks, "Well, doc, what are we going to tell history?" "We're going to say that we did this to ourselves" (Wright 2020, 376). Clearly, here the threat no longer comes from nature, especially in its primordial, tropical forms as it did in typical outbreak narratives. In the final section of the novel, the fictional pandemic turns out to be a dark side of modernization and technological progress. Therefore, it ceases to belong to the forces that appear to act independently of human agency. Human agency in global catastrophe, which the pandemic in Kongoli only started, becomes even more visible in the bio- and cyber-wars that follow, most probably wiping out a large part of the human population in *The End of October*.

However, Wright's new anthropogenic perspective on epidemic may be found not only in fiction. For instance, in *Dead Epidemiologists* (2020), a collection of articles written during the last outbreak, Rob Wallace, an evolutionary biologist and public health phylogeographer, focuses on capital-led agricultural production and

trade as major reasons for the COVID-19 pandemic. He convincingly demonstrates the damaging effects of turning living organisms and entire production chains into commodities within more and more capitalized landscapes. By replacing ecologies that are more natural, today's agriculture promotes invasive species and alternate xenospecific relationships, which, in turn, disrupt long-term ecosystemic function. Therefore, Wallace recommends that "we err on the side of viewing disease causality and intervention beyond the biomedical or even ecohealth object and out into the field of eco-social relationships" (2020, 26). Despite his narrow focus on agriculture, Wallace's recommendation seems to be of importance in our time of epidemics cropping up in the wake of detrimental global environmental damage of anthropogenic origin, interwoven with other economic and social crises. In other words, in the age of the Anthropocene, epidemics have become one of the effects of climate change, and it can no longer be delegated to geographically, temporary, and economically distant colonial countries.

In his aforementioned *The Nutmeg's Curse*, Amitav Ghosh also writes about weaponization of the environment as both the core and main effect of colonial terraforming in the Americas. He recognizes the right to rename and terraform, "to turn territories that were perceived to be wastelands into terrain that fitted a European conception of productive land" (Ghosh 2021, 71), as an essential part of settler identity. These 'terraformed' locations have already been—and will be more intensively in the future—affected by massive biological and ecological disruptions, epidemics among others. As most of them will break out in wealthy countries, Ghosh strongly opposes the widespread belief that it is the poor countries that will suffer the most because of the planetary crisis. In his view, it is even more likely that the wealthy will actually be the first to feel adverse effects of climate change. He supports his argument with reference to the direction taken by the COVID-19 pandemic. Reminding that before 2020, eminent experts placed the US and the UK at the top of the list of "Countries Best Prepared to Deal with the Pandemic," Ghosh convincingly demonstrates that China and a cluster of African countries relegated to the bottom of this list fared much better. He further supports his claim by pointing to Cuba, which "at the peak of the crisis, [...] even sent a team of doctors to Italy to buttress that country's foundering medical system" (Ghosh 2021, 131). What is important here is that Ghosh also subverts the concept of futurity on which most of outbreak modeling and pandemic simulation is premised.

Reflecting on the complex connections between settler colonialism and the planetary crisis in *The Nutmeg's Curse*, Ghosh notices, "[i]t is as if climate change were goading the terrain to shrug off the forms imposed on it over the last centuries" (2021, 152). However, he goes a step further than those who—like Isabelle Stengers in her book *In Catastrophic Times* (2015)—speak about Earth striking back, for he demonstrates that usually this shrugging-off takes very specific, local forms. This locality is a significant aspect of the emergent non-medicalized perspectives on epidemics.

This is also one of the main reasons why the analytics of epidemics have recently also been applied to non-infectious diseases or even climate phenomena. The best example of this is Dipesh Chakrabarty's description of diabetes as a kind of epidemic in his recent book *Climate of History in a Planetary Age* (2021). While identifying a shock of falling into deep history—that is, a recognition of the otherness of the planet and its large-scale spatial and temporal processes—Chakrabarty draws an analogy with an experience of a person from the Indian subcontinent who has been diagnosed with diabetes. As he argues, the experience opens up entirely new, impersonal, long-term pasts: “A subcontinental person will most likely be told that they have a genetic propensity toward diabetes because they have been rice eaters (for at least a few thousand years now)” (2021b, 15). Because of this ecological conditioning, as he explains, diabetes has acquired epidemic proportions on the Indian subcontinent. The same conditioning accounts for the fact that contagious and other diseases are no longer seen as independent of human agency today. They are similarly acknowledged to be generated by a local multifactorial basis that involves intrinsic interactions between human biology and more-than-human environmental factors.

In numerous recent studies, the emergent non-medicalized perspective on epidemics has been increasingly applied as a method to analyze both the epidemiologic imaginary and epidemics as metaphor/mediation. In all of them, one and the same undertaking is visible—to go beyond the biopolitical frame that birthed epidemiology in order to seek alternative and less anthropocentric conceptualizations of epidemics. The same could be said about the metaphoric uses of the outbreak narratives typical of the last century. It is also evident in the case of non-infectious diseases treated as epidemics that I have referred to and the recent understanding of epidemics as an environmental factor. In her book *Contagious*, Wald emphasizes that the circulation of microbes has materialized the transmission of ideas, beliefs, attitudes, behaviors, etc. Before that, the medical usage of the term ‘contagion’ had been “no more and no less metaphorical than its ideational counterpart. The circulation of disease and the circulation of ideas were material and experiential, even if not visible. Both displayed the power and danger of bodies in contact and demonstrated the simultaneous fragility and tenacity of social bonds” (Wald 2008, 12–13). Then the medicalized communicable disease became ‘the real’ against which other phenomena were measured, so as to make stigmatizing metaphors politically useful, as Sontag and Kolb demonstrate. That is why in the last part of this chapter I take a closer look at viruses that have been the cause of epidemics in this century. Their substantial and figurative potential may open up new perspectives on ongoing and futures paradigmatic changes within the Western knowledge system.

Viruses and Their Metaphors/Mediations

In many respects, viruses present a borderline phenomenon that subverts basic categories of Western sciences premised on binary thinking. Until recently conceptualized and researched mainly as a threat to humankind and agents of mortality, viruses are increasingly recognized as agents of life and life's diversity. They not only have proved useful in gene therapy, instrumental in replacing a damaged gene in human tissue with a working one, but they could also be regarded as a driving force of evolution. This is what Dr. Henry Parsons hints at in Wright's *End of October*: "The legacy of ancient infections might be found in as much as 8 percent of the human genome, including the genes that controlled memory formation, the immune system, and cognitive development" (2020, 47). In other words, viruses are both around us and in us—they define us as human beings on more than just biological level. They are the trouble we have to live with, as Donna Haraway would have it (2016). However, contrary to the latest findings of viral relational agency and pluripotency, we still imagine viruses as self-contained particulars with clear boundaries and stable inherent properties along the lines of a neoliberal agenda, according to which genetic information could become a patented and traded commodity. As Caitlin Berrigan rightly points out, "[V]iruses, fathomable only by means of scaffolds of metaphors, are evacuated of their material relations and come to operate as the metaphor itself" (2022). Therefore, it is not surprising that theorists and politicians alike have often deployed the pathologized virus as a figure that stands in for foreign agents or invaders.

The well-known example of how a metaphorized virus might and has been politically deployed is Elizabeth Povinelli's set of three figures of geontopower in her *Geontologies* (2016), one of which—alongside the Desert and The Animist—is the Virus, the main token of which is the Terrorist. The author defines both the Virus and the Terrorist as ultimate threats to the capitalist system but demonstrates that the two figures at the same time serve as considerable sources of profit. Significantly, Povinelli returned to her figure of the Virus just after the second wave of the coronavirus pandemic. In "The Virus: Figure and Infrastructure" (2020), she shows how the Virus-as-Terrorist effectively blocks a vital understanding of the current pandemic as yet another form of structural violence, a manifestation of the ancestral catastrophes of colonialism and slavery. Therefore, the only way to see that the current pandemic is yet another form of toxicity that colonialism has seeded, bringing along also the Anthropocene, is to differentiate the actual virus from the Virus. However, Povinelli focuses on the difference between the real pathogen and the figure of Virus in the recent cultural and political discourses. That is why she does not even mention how deeply the ordering principles, genres, and narrative devices of medical epistemologies have always-already informed our cultural imagery. After all, the rhetoric of scientific visualization and explanation is also dependent

on a historically informed and distinct cultural tropology. This has recently been demonstrated by Hannah Landecker, a sociologist from the University of California working at the intersection of anthropology and history of biotechnology and life science.

In her article “Viruses Are More Like Cone Snails” (2022), Landecker looks closely at how microbial studies have domesticated viral agencies and actions to the human scale. One of several telling examples to which she refers is the figuration of the virus as a hijacker of the early twentieth century. The figuration emerged out of cultural mobility between popular imagination and the way viruses were materialized in scientific discourses of newly founded epidemiology and its policies. Landecker points out, “As with many apparently innocuous explanatory tropes, this figure of the viral hijacker perhaps hides as much as it reveals” (2022). Indeed, because it does not possess its own metabolism, the virus was figured as a foreign agent. Premised on that, infection was conceptualized as a forcible take-over of the “cellular machinery” in a kind of illicit raiding operation (Landecker 2022). In this frame of reference, we may also reasonably situate Povinelli’s figure of the Virus-as-Terrorist as a successor of this older figuration. This time, however, it is a medical understanding of viral contagious agency that has infected cultural and political discourses of late liberalism, underpinning their racist, neocolonial policies that Povinelli lays bare in her book *Geontologies*. However, what Landecker (2022) calls “domestication” denotes not only metaphorization of viral agencies and actions but also the conceptualization of viruses. A case in point is the modern definition of the virus, understood as “a DNA or RNA core contained in a protective package transmittable across time and space between and within susceptible hosts” (Landecker 2022). It was introduced in the early 1930s, roughly at the time of the expansion of international networks and modes of shipping people, valuables, and factory-produced commodities around the globe. At that time, the increasingly expanding international networks of trade and communication did not only facilitate transmission and global spread of contagious diseases, they also decisively influenced how viruses were visualized and materialized in both cultural and scientific/medical imaginaries.

Mindful of the historical taproots of both of these seemingly innocuous explanatory tropes, Landecker also offers a kind of speculative exercise, inviting readers to imagine viruses rather in terms of predatory sea snails than hijackers, foreign agents/terrorists, or protective packages. For instance, one species of predatory sea snails, *Conus geographus*, uses an insulin overdose to disorient and disable its fish prey, releasing the toxin into water. Importantly, because the toxic overdose mimics fish insulin, it does not affect the snail itself. A similar kind of a predatory metabolic convergence, in the mid-1960s called ‘molecular mimicry,’ allows some viruses to mimic their host’s cell cycle and metabolic processes. In other words, this speculative exercise makes clear that not all viruses are pathogenic agents that kill their host cell to replicate. Some replicate and continue their existence within their host’s

cell as symbionts, provided they know how to mimic its metabolism, to become its protein kin. Such viruses—a horde much bigger than the one already identified as dangerous for humans—have been marginalized, or even made invisible when the virus was conceptualized as hijacker or terrorist. Therefore, it indeed matters “what thoughts think thoughts, what descriptions describe descriptions,” to use Haraway’s phrasing (2016, 12).

Both epidemiological and cultural figurations of viruses have domesticated viral agencies and actions, and in so doing have also decisively influenced how we apprehend this very differentiated group as deadly pathogens. Researching historical processes of the domestication, Landecker focuses mostly on discursive metaphors. However, as she points out, scientific-technological materializations have played just as important role as a subject of microbiological experiments and studies. This has recently been demonstrated by Bishnupriya Ghosh in her monograph *Virus Touch* (2023). Importantly, and contrary to Povinelli and Landecker who dwell on viral tropology in different kinds of discourses, Ghosh focuses on the scientific-technological mediation of ‘life.’ By materializing pathogens, the mediation targets scientific/medical intervention into dynamic, fluctuating, more-than-human assemblies to tell apart the host from the attacker. In other words, how we see and understand viruses and witness their effects depends largely on how epidemic media enact epistemic cuts in those assemblies to inscribe, store, and transmit their relations as stable and, therefore, knowable and manageable configurations. Although the last contagious disease outbreaks have already been reconfigured as unfolding ecological disturbances, epidemic media still institute infection as fluctuating relations between two discrete entities—viruses and their hosts. It is out of these relations, of intra-active biotechnical performances that isolated pathogens appear as exterminable targets.

That is why the author of *The Virus Touch* formulates a rhetorical question about a visibly deepening gap between laboratory findings and an already outdated common knowledge about viruses. How is it possible, Ghosh asks rhetorically, that as we face species extinction in a near future of the Anthropocene, we would rather have microbes as infectious germs exterminated—exterminated despite the recent knowledge of our ever-swarming, multispecies biobodies. Mindful of this paradox, Ghosh looks closely at different forms of media across the current epistemic setting—from laboratories and clinics to forests, from scientific theories and clinical instructions to public health policies. In this way, she convincingly demonstrates “how epidemic media actualize multispecies relations as to measure, assess, and locate harms” (Ghosh 2023, 2). How these multispecies relations are actualized is merely an outcome of both epidemiological and socio-political needs and applied technologies, for, as Ghosh explains, “inquiries into making/doing/enacting epidemic media habitually disclose the entangled materiality of living processes and relations” (2023, 200). Premised on her insights, Ghosh insists on another kind of knowledge, which

we need to activate. Otherwise, we will hardly be able to cope in the current situation of multipronged crises. She calls this type of knowledge “a sensuous apprehension of multispecies entanglements that implode all organismic boundaries” (2023, 3). It should focus on how different human, animal, plant, and machinic agencies other than viruses have been materialized through similar processes of mediation, instituted and rendered in their objectivized and naturalized differential relations as epistemic objects (and facts).

It is for a reason that Ghosh has chosen the time-space of HIV/AIDS and COVID-19 outbreaks, which she calls the current epidemic episteme, to reflect not only on viruses as products of scientific-technological mediation but also on a much broader topic of multispecies entanglements and a much-needed recalibration of multispecies politics. Her book, like many others I have referred to in this chapter, demonstrates that the extreme situation of a global viral pandemic compels more urgently than before changes, turns, and shifts in our knowledge system. Epidemiological narratives and metaphors/mediations are so tightly entangled in much larger cultural imaginaries that each change in how we conceptualize contagion and its causes entails consequences for how various spheres of life are envisioned and apprehended. This has been demonstrated, for instance, by the latest recasting of epidemic as a manifestation of an unfolding ecological disturbance, a further ‘denaturalization’ of epidemiological discourses, and novel materializations of viruses as both quickly mutating swarms and a vital source of life on Earth, as I have pointed out. This perfectly illustrates that we face ongoing deeply paradigmatic changes premised on the one-of-a-kind experience of the COVID-19 pandemic—even if those changes are not so radical, super-visible, and hyper-present as many people hoped during the last contagion.

Acknowledgments

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Depicting SARS-CoV-2

A Weird Icon of (and for) the Anthropocene

Michael Fuchs and Martin Butler

In an essay on how visual culture engaged with the first year of the COVID-19 pandemic, Julia Sonnevend (2020) identifies three prevalent types, perhaps even genres, of representations and one iconic image. The first type centers on abstract images of the pandemic, such as charts indicating the number of infections, animated maps showing the spread of the virus, and illustrations trying to convince onlookers that ‘flattening the curve’ was the only way not to overtax the healthcare system. The second type includes depictions of heroes and villains of the pandemic. Among the heroes were publicly visible virologists and epidemiologists such as Anthony Fauci in the United States and Christian Drosten in Germany (see Butler et al. 2021; Joubert et al. 2023). In addition, heroic representations include photos and other types of images of the ‘frontline heroes’ of the pandemic—doctors, nurses, and other kinds of healthcare workers. However, where there are heroes, there are also villains, such as right-wing populists in the vein of Donald Trump, who figured themselves in heroic portrayals. (Of course, Trump and his ilk were also heroes for particular parts of their countries’ populations, just as Fauci and others were conceived as villains [see Butler et al. 2021].) Sonnevend calls the third major genre the “‘stage’ of the crisis” (2020, 452), which are the spaces and places associated with the pandemic, such as vacated urban centers, tents set up to confront the high number of infected people, the images of New York City’s mass grave on Hart Island that went around the globe, and so on. In the second year of the pandemic, photos of people receiving their vaccination shots and of rapid test results also proliferated in visual culture.

Although Sonnevend mentions one particular visual icon of the COVID-19 pandemic, she does not explore it in further detail: the 3D rendering of SARS-CoV-2 created by two medical illustrators working for the Centers for Disease Control and Prevention (CDC), Alissa Eckert and Dan Higgins. The illustration was published on January 31, 2020, eleven days after the first case of COVID-19 was confirmed in the United States (a man who had returned from Wuhan on January 15; CDC 2020) and about six weeks before the World Health Organization would declare COVID-19 a pandemic. Lukas Engelmann has described the illustration as “the most-used and most-familiar representation of the developing pandemic over its first year” (2023,

249), when the viral image (awful pun intended) encapsulated Priscilla Wald's notion that "[d]isease emergence dramatizes the dilemma that inspires the most basic of human narratives: the necessity and danger of human contact" (2008, 2). As millions of people were sitting in their homes, yearning for unmediated human contact with people other than the ones they shared their households with, the illustration pinpointed the source of COVID-19, offering an easily identifiable starting point for the global spread of a viral disease that would be (en)countered by epidemiological work—quite like the formulaic outbreak narrative that Wald outlines in her book *Contagious* (2008).

In this chapter, we focus on the CDC illustration because we consider it a particularly powerful image in terms of meaning-making potential. In so doing, we follow the idea that while "[i]nfection may be experienced in the fever and fret, [...] it is not intelligible as such without [...] mediation" (Ghosh 2023, 2). To be precise, our argument connects the illustration to Anthropocene anxieties, for "SARS-CoV-2 is emblematic of our increasingly fraught relationship with the natural world" (Yang 2021, 391).¹ Whereas empirical research suggests that the CDC illustration generates less fear and disgust than the less widely distributed scanning and transmission electron microscope images captured and circulated by the National Institute of Allergy and Infectious Diseases (NIAID) (Li et al. 2022; Illustration II.1), we suggest that the CDC illustration acknowledges the "WEIRD world" (Lorimer 2020, 5) that is the Anthropocenic reality.² This age is characterized by the proliferation of pandemics (Morens and Fauci 2020) and an understanding of the human as "an unraveling holobiont—a multispecies chimera that is kept alive, sane, and rational by its microbes" (Lorimer 2020, 4), "a complex admixture of bacterial, fungal, parasitical and viral components on a cellular level in which the strictly human cell (or rather the human as previously understood) is greatly outnumbered" (Shildrick 2022, 77).

Such a conceptualization of the human body (articulated in and through the CDC image) disagrees with the modern idea of the human as a body hermetically sealed off from its environment—a "pastoral bioscope threatened by external or internal invaders (viruses or tumors)" (van Dijck 2005, 12)—and of "health as the absence of microbes" (Lorimer 2020, 4). To be sure, this seemingly posthuman understanding of the human as no singular entity but rather interconnected with the world is not a radically new insight (arguably at least dating back to Chevalier de

1 We acknowledge the critical debates surrounding the term 'Anthropocene,' voiced through various "alter-cene[s]" (Yusoff 2018, 61). As Potawatomi scholar Kyle Whyte rightly stresses, not "all humans are implicated in and affected by colonialism, capitalism and industrialization in the same ways" (2017, 157), nor are culpabilities, responsibilities, and vulnerabilities equally shared. Nevertheless, we use 'Anthropocene' because COVID-19 speaks to these very inequalities—as we demonstrate later in this chapter.

2 Granted, this argument also holds true for the arguably much weirder SEM and TEM representations of SARS-CoV-2, but they function differently.

Lamarck [1816], in whose natural history the environment was essentially part of any organism). However, it seems as if the naturalcultural (Haraway 2016) characteristics of Anthropocene realities increase our (early twenty-first-century, urban, middle-class, white Europeans) sensitivities to “join the dots and see that everything is interconnected” (Morton 2010a, 1).³

Illustration II.1: Colorized scanning electron micrograph of SARS-CoV-2 infection (SARS-CoV-2 virus particles in yellow)

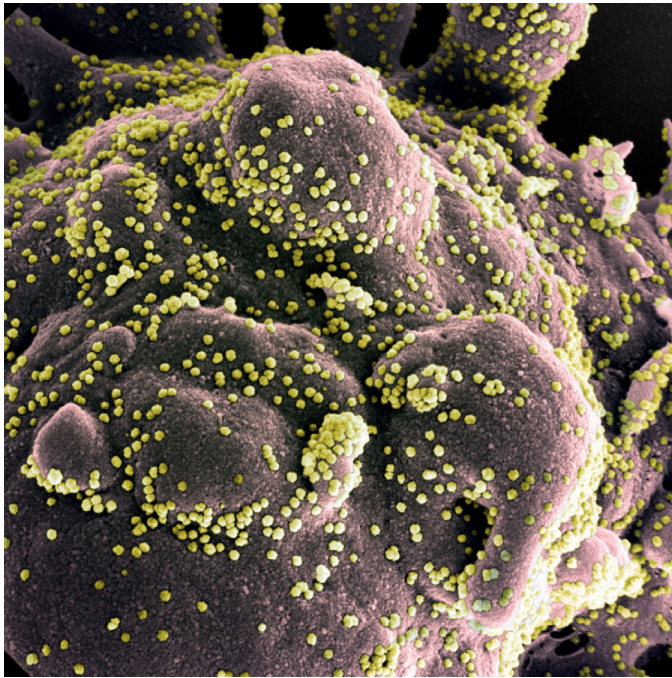


Image by the National Institute of Allergy and Infectious Diseases. Released through the NIAID's flickr account under a CC BY 2.0 license, <https://flic.kr/p/ziRnmqq>.

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- 3 This contemporary emphasis on the significance of (inter)connectedness not only has roots in conceptualizations of Gaia (Lovelock and Margulis 1974) but also colonizes and overwrites indigenous understandings of human–nature entanglements, for this “Euro-Western academic narrative [... is] spinning itself on the backs of non-European thinkers” (Todd 2016, 7). We nevertheless—somewhat problematically—reference white scholars from the Western tradition here because we focus on the CDC illustration's spread and meanings in the Global North.

The cultural significance of the CDC illustration as an icon of the COVID-19 pandemic and the Anthropocene, we thus suggest, lies in its potential to draw our attention to the fact that “[a] ‘normal’ moment for us [...] is one that allows us to forget or ignore the life-supporting work that microbes do even when we are not in a position [...] to deny their presence” (Chakrabarty 2021, 332). This potential appears to be particularly high in versions of the CDC illustration in which the virus, usually invisible to the human eye, is super-sized and depicted against a black background. Accordingly, after introducing the biomedical realities that the image tries to capture and briefly outlining how the depiction of SARS-Cov-2 went viral, we will focus on the aesthetics of these super-sized representations of the virus, which, by tapping into science-fictional tropes, capture the strangeness of the pandemic experience; they evoke cosmic dread in view of the “weirdly weird [...] strange loop” through which the “Anthropocene binds together human history and geological time” (Morton 2016, 8). By combining anxieties typical of the current historical moment with the notion that COVID-19 does not simply acknowledge that “human nature is an interspecies relationship” (Tsing 2012, 144) but rather captures the “accelerated unusual encounters between humans and nonhumans from ecosystems that were formerly partly isolated” (Aronsson and Holm 2022, 25) characteristic of the Anthropocene, the CDC illustration, therefore, is not only an icon of the COVID-19 pandemic but also an icon of the Age of Man.

Medical Images and the SARS-CoV-2 Illustration

Medical images help record and disseminate knowledge about medicine, ranging from anatomy to the depiction of viruses. Scholars have traced medical images to cave paintings that try to give insight into women's wombs (e.g., Tsafrir and Ohry 2001), and, more directly, to anatomical illustrations of the fifteenth and sixteenth centuries—by Leonardo Da Vinci and Andreas Vesalius, in particular (e.g., Zwijnenberg 2009; Naicker 2023), as “looking into the body's interior has constituted the empirical imperative of medical science” (van Dijck 2005, 4). Although early microscopes were developed in Ancient Greece, the use of microscopes to analyze organic tissue did not become widespread until the seventeenth century. Robert Hooke's *Micrographia* (1665), for example, showed the structures of leaves, the sting of a bee, and the setae on the legs of spiders in then-never-before-seen detail; however, his contemporary Antonie Philips van Leeuwenhoek “was the first to document the existence of bacteria, red blood cells, yeast, and sperm cells” (Chimileski and Kolter 2017, 11). In the eighteenth century, “[t]he development of classification and taxonomic systems for categorizing the visible world according to allegedly natural hierarchies of plants, animals, and humans became the basis for the study of pathology and difference in the bodies of organisms” (Serlin 2010, xx). No matter how vi-

sually pleasing and embedded in aesthetic traditions these paintings and illustrations were, they were generally considered authentic and objective representations of the natural world (Hüppauf and Weingart 2008, 7). The development of photography some two hundred years later revolutionized medical images. Robert Koch suggested that photographing microorganisms was key to studying them ([1881] 1912, 122) and explained,

The photographic image of a microscopic object may be more important than the object itself. For if I hand someone a microscopic specimen with the intention of examining very specific parts of it, such as lymphatic vessels containing bacteria, I cannot be sure that the correct location will be found and, if this is the case, that the correct setting, lighting, etc. will be chosen. Photography, by contrast, reproduces the microscopic image once and for all, without even the slightest illusion being possible, in the exact setting, magnification, and lighting in which it was when the photograph was taken. (Koch [1881] 1912, 123)⁴

Fast-forward another fifty-plus years and the first virus was visualized through electron microscopy (von Borries et al. 1938). Viruses cannot be captured through standard microscopes because “they are smaller than the wavelength of light” (Bock von Wülflingen 2023, 261); so, electron microscopy “opened up the realm of colloidal dimensions to the human eye” (von Borries et al. 1938, 925). The then-new technology became key to the conceptualization and study of viruses in the years that followed, as “[o]nly the electron microscope could provide convincing evidence that viruses were distinct entities [...]. Without a visual criterion for viral identity and integrity, investigation of viruses by other means would have been plagued with far greater uncertainties” (Rasmussen 1997, 219). As Bernd Hüppauf and Peter Weingart have noted, “Whereas illustrating pictures and graphics are concerned with ‘the communication of information and results that are already understood,’” electron microscopes “make visible what would remain unknown without them” (2008, 14).

Alissa Eckert echoed these ideas in an interview with *Elemental*, stressing that the CDC illustration of SARS-CoV-2 (Illustration II.2) “was originally designed with the public in mind [...]. However, it also serves to help researchers differentiate and visualize their information. Creating visual representations of diseases provides a way to take something complex and abstract and make it tangible through visualization” (Britt 2020). In addition to the illustration, the *Elemental* article included an explanation of the 3D rendering:

The gray surface is a spherical envelope that surrounds the nucleus of the virus, containing genetic material.

4 All translations of sources in languages other than English are by the authors of this chapter.

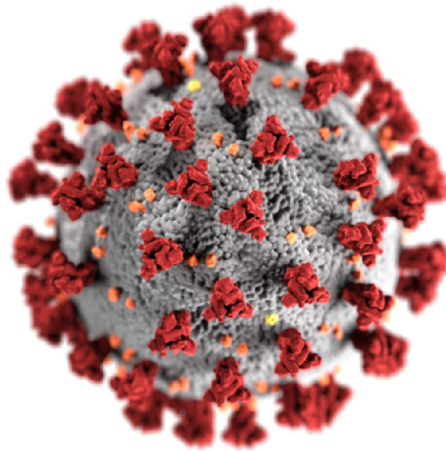
Orange bits are ‘membrane proteins,’ or M proteins, the most abundant structural protein in the virus and one that gives it form [...]. These and other proteins vary from one type of virus to another, and can be used to help understand or identify one virus from another.

Yellow bits are envelope proteins (E proteins), the smallest of the structural proteins. They play an important role either in regulating virus replication—such as virus entry—assembly and release, according to other research.

Red spikes: These clumps of proteins (called S proteins) are what the virus uses to gain entry into and attach to the cell [...]. They also create the effect of a halo, or corona, around the virus. (Britt 2020)

By giving the virus visual form, by “bringing the unseeable into view,” as a *New York Times* article put it (Giaimo 2020), the illustration contributed to explaining the virus and its effects, and, in so doing, helped make the terrifying world around us seem more comprehensible and the threat containable. Indeed, as Bettina Bock von Wülfigen has noted, singling out an individual virion creates the impression that the viral attack “was manageable,” which is supported by the static image (rather than an animation), which “instead of lively movement” (as well as the attendant notions of evasiveness and escape) promotes the notion of “controllability” (2023, 273).

Illustration II.2: The 3D rendering of SARS-CoV-2 designed by Alissa Eckert and Dan Higgins for the Centers for Disease Control and Prevention



CDC Public Health Image Library ID No. 23312. Image is in the public domain.

Bock von Wülfigen's reflections echo Bruno Latour's emphasis on the fact that "[i]n science, there is no such a thing as 'mere representation'" (2002, 22): the depiction of SARS-CoV-2 does not simply mimetically reproduce reality but is a meaningful production of that which is not graspable as a reality—an aspect that is arguably even more apparent in the 3D rendering (which does not *reproduce* the look of the virus but rather *illustrates* it) than in electron microscope images (but even there, questions such as coloration come into play). By making visible what was considered an existential but invisible threat, the SARS-CoV-2 representation was political in the most general sense: it gave shape to something shapeless and, as a central reference point for public debate, provided the basis for rendering the pandemic as crisis in the first place. After all, "contemporary public health crises would be literally unimaginable without [...] visual representations. Indeed, one could argue that such crises are *unknowable* without visual representations" (Serlin 2010, xiii).

However, in these political (or politicized) contexts, the focus on the virus (the single virion, on top) tended to ignore "the social, environmental, and cultural conditions of transmission" as well as "the political costs of containing the developing crisis" and failed to "provide particularly insightful information on the pathogen itself" (Engelmann 2023, 236). Some of these shortcomings were critiqued in various types of appropriations, which only amplified the CDC illustration's signifying power.

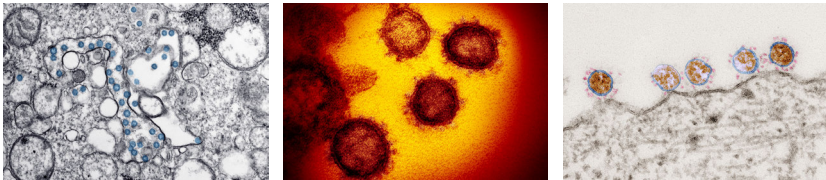
The CDC Illustration as Cultural Icon

Originally, the word 'icon' denoted religious paintings and sculptures, typically representing Jesus Christ, the Virgin Mary, saints, angels, and/or events from sacred Christian history. While traditional religious views have been largely replaced by secular belief systems in the West, these secular cultures nevertheless embellish (pseudo-)religious symbols and practices of worship. As a result, the notion of icons as objects that suggest the (pseudo-)presence of a divine figure has seeped into the (pop-)cultural realm. For example, Paul Ricœur has argued that, like religious icons, cultural icons may convey a more-than-ordinary reality (1976, 40–42). Icons must be "recognizable to a large number of members of a specific group" (Sørensen 2006, 239), which endows them with potent symbolic force and allows them to function "as carriers of collective emotions and meanings" (Binder 2011, 101). However, a cultural icon does not simply reflect hegemonic power structures and perpetuate dominant ideologies; rather, it is a "symbolic framework charged with meanings distinct enough to inspire multiple group-inscriptions but also open enough to resist ideational closure" (Leypoldt 2010, 10). In the digital age, cultural icons not only spread in numerous media and on different platforms (as Henry Jenkins, Sam Ford, and Joshua Green have put it: "If it doesn't spread, it's dead" [2013, 1]), but their

existence may be ephemeral (of an ‘event’-like character), while their meanings and affective potentials are bound to change in the blink of an eye.

To claim that the 3D rendering of SARS-CoV-2 quickly reached iconic status may be an understatement, for “[i]t was the icon of the pandemic before most people on the globe even learned about it” (Bock von Wülfinen 2023, 277). Indeed, whereas an event of global proportions such as the COVID-19 pandemic should typically have various candidates vying for the role as iconic representation (and/or there are multiple visual icons representing an event of this scale), at least in the Global North, the CDC illustration was “without any competitive alternatives” (Bock von Wülfinen 2023, 277). To be sure, institutions such as the CDC, the NIAID, and the Robert Koch Institute released electron microscope images of SARS-CoV-2 within days after the CDC illustration had been published (Illustration II.3). These images could be said to purport to be more ‘authentic’ than the 3D renderings, as they (seem to) depict ‘the real thing.’ However, since the CDC illustration had already been in circulation for some days and featured in thousands of reports and articles, the other images only confirmed its iconic status by referring to the illustration rather than ‘the real thing’—a kind of Baudrillardian short-circuit where “models of a real” are produced “without origin or reality” (1981, 10), as the representation of the virus preceded its reproduction.

Illustration II.3: Electron microscope images of SARS-CoV-2



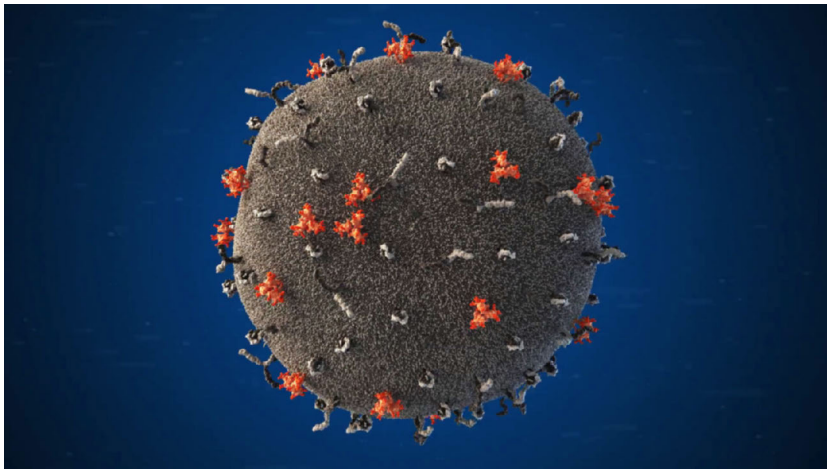
From left to right: Image by Hannah A. Bullock and Azaibi Tamin for the CDC. CDC Public Health Image Library ID No. 23354. Image is in public domain. Image by NIAID's Rocky Mountain Laboratories in Hamilton, Montana. Released on NIAID's flickr account under a CC BY 2.0 license, <https://flic.kr/p/2isPPfE>. Image by Tobias Hoffmann for Robert Koch Institute. Released through the RKI website for free use, https://www.rki.de/DE/Content/Infekt/NRZ/EM/Aufnahmen/EM_Tab_covid.html.

The CDC illustration instantly became part of the popular visual repertoire and, essentially, visually branded the pandemic. The illustration did, in fact, not so much “stand for the ultra-morphology of the protein structure on the surface of the virus” but rather became “representative of the pandemic at large” (Engelmann 2023, 251). Lukas Engelmann concludes that “[a]s an icon of the pandemic, the image becomes suggestive of a specific perspective on what the pandemic is, how it is caused, and

how it is supposed to be perceived. In other words, if we consider the pandemic as a crisis, the image offers a highly specified view on how to make sense of it” (2023, 251). However, one must remember that “[w]e never see paintings on their own,” as our understanding of visual culture “is all surrounded, all prepared by a halo of commentary” (Butor [1980] 2019, 1).

G rard Genette would have referred to this ‘halo of commentary’ as ‘paratexts’–“accompaniments” that “surround” the text (1987, 1)–or, in our particular case, the image. Jonathan Gray has stressed that paratexts do not merely accompany media texts but rather create them by “condition[ing] our entrance to texts, telling us what to expect” (2010, 25). The interviews that the illustrators gave in various media are some of these paratexts, as they contextualize the illustration, explaining the scientific bases as well as aesthetic decisions that played into the creation of this particular “beauty shot,” as Eckert put it (Giaimo 2020), which aimed at evoking “a feeling of alarm,” as Dan Higgins remarked in another interview (Fairs 2020). These pieces of commentary influence onlookers’ understanding of the illustration.

Illustration II.4: HIV model created by Visual Science



Frame grab from demo video, <https://vimeo.com/187792262>.

Yet connections to other texts–in a wider sense both verbal and visual–do not only unfold (more or less) synchronously: in what may well be described as an intertextual (or intervisual in the sense of a “fluid interchange of the image” [Mirzoeff 2001, 126]) reference, the SARS-CoV-2 illustration uncannily recalls a 3D model of HIV created by Visual Science that made it onto the cover of a special issue of *Na-*

ture Medicine back in October 2010 (Illustration II.4). The isolated virion hovering in space, the gray membrane endowing the virus with an uncanny quality, the weird shape of the virion, as the spikes are seemingly ready to attack the human body—they all echo in the SARS-CoV-2 representation. That is, part of the illustration's iconic power resides in how it drew on—how it serially repeated—elements of earlier depictions of viruses, thus embedding it in a longer aesthetic tradition of representing microorganisms.

Moving from the past to the (then-)future of the CDC illustration, it seems noteworthy that the 2002–2004 SARS outbreak transformed into “cultural fodder to be recontextualized by impertinent twentysomethings for t-shirts and screen savers,” producing “SARS images [...] with [...] ironic aplomb” (Serlin 2010, xviii). Similarly, the CDC illustration was adapted and appropriated in various ways and contexts: it represented the struggle between science and science skepticism (if not outright denialism); it symbolized the seemingly never-ending struggle of healthcare workers; the virus had a fun time skiing in Austria (picking up on the notion of the ski resort Ischgl as a “superspreading transmission hub” in the early stages of the pandemic [Popa et al. 2020; see Mayer et al. 2021 for an exploration of the discourse surrounding Ischgl]); it emblemized distance learning around the globe; and much more. As much as these representations (re-)contextualize and appropriate the iconic representation, they stand in a dialogic relationship to the CDC illustration; they refer back to it and thus cement its iconic status and cultural relevance. Through their playful interactions with the original illustration, however, later depictions of SARS-CoV-2 often removed the uncanny, weird qualities from the original illustration.

The Aesthetics of Weirdness and Cosmic Dread

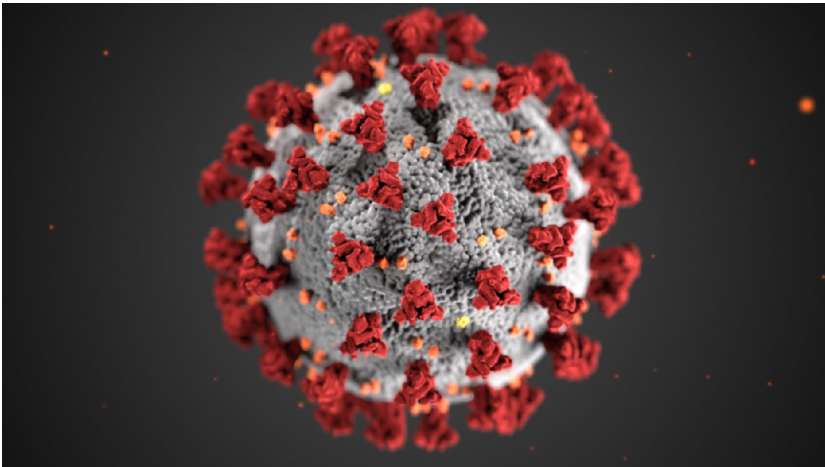
In a contribution to the *Medical Humanities* blog, Kristin Marie Bivens and Marie Moeller (2020) stress that the “scientifically-oriented representation” of SARS-CoV-2 “misses the opportunity to humanize and contextualize the novel coronavirus.” They appreciate the illustration’s “visually pleasing” form, but condemn that it “avoids conveying the exigency of the current pandemic, the urgency of enacting certain behaviors during this global health crisis, and the human toll it is exacting across the globe.” Bivens and Moeller seem to misunderstand the functions and purposes of the SARS-CoV-2 illustration and would rather have COVID-19 images focus on the effects of the disease. They argue that the virus and its impacts on human bodies and wider consequences on health care systems and other infrastructure needs to be rendered “gross,” “graphic,” and “grotesque,” seemingly suggesting that science (or disease) communication should emphasize affect. In a two-part post on the blog *Inhabiting the Anthropocene*, which was operated by scholars at the University of Oklahoma, art historian Robert Bailey (2020) expresses a rather different opinion, as, for

him, the image is, in fact, too horrific. To use the title of the post, “the coronavirus looks like neoliberalism,” since the visualization attacks individuals rather than governments or collective entities: “the ‘spiky blob,’” Bailey argues, “tells us to be afraid for our lives and to act accordingly. But afraid of what? Not of God but of everything. [...] A] part of us deep within automatically registers and accepts its prompt in the name of basic survival instinct.” Since the red spikes on the front are in focus and the remaining spikes become increasingly blurry, the 3D rendering creates the impression that the virus is directed toward the viewer, ready to pounce on them, Bailey notes.

Even though Bivens and Moeller, on the one hand, and Bailey, on the other, approach the illustration from different points of view and draw very different conclusions, both responses to the illustration express a desire for a more human (or humane) dimension—Bivens and Moeller miss a call to action, whereas in Bailey’s reading of the image, the human may be implied as a potential ‘target’ of the virus, but the image lacks a human reference point. In particular when looking at the version of the illustration featuring the virion against a dark background, with orange dots, possibly hinting at more virions lurking in the darkness, the cosmic dimension evoked by the virus becomes apparent—SARS-CoV-2 is hovering in dark space (Illustration II.5). There is a science-fictional quality to the illustration, which exemplifies a tradition in which “the small levels of life on earth [...] evoke a sense of the unfamiliar more commonly attributed to the uncertainty of outer space” (Hamann-Rose 2022, 45). At the same time, this alien creature is precisely not, to draw on Ian Bogost, “hidden in the darkness of the outer cosmos”; instead, the virus is a “true alien” that “surrounds us completely”—it is potentially “everywhere, in everything” (2012, 34).

Paul Hamann-Rose considers the aesthetic strategy of ‘upscaling’ microorganisms key to generating the ‘molecular sublime.’ Edmund Burke provided the classic definition of the sublime in his treatise *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* (1757), arguing that the sublime “excite[s] the ideas of pain and danger” (1990, 36). The sublime experience produces astonishment, which “is that state of the soul, in which all its motions are suspended, with some degree of horror,” combining feelings of wonder with terror (Burke [1757] 1990, 53). “The kindred emotions which attend fear and wonder” produce a desire to be overwhelmed by the beauty of nature while simultaneously fearing to be annihilated by it (Burke [1757] 1990, 54). One could certainly apply these ideas to the CDC illustration, as the miniscule virion is rendered beautiful while simultaneously evoking horror due to the pain it causes: “Only embodied in an image does the virus gain power and produce terror, keep us in awe” (Belgrano 2021, 203).

Illustration II.5: The 3D rendering of SARS-CoV-2 designed by Alissa Eckert and Dan Higgins for the Centers for Disease Control and Prevention against a black, outer space-like background



CDC Public Health Image Library ID No. 23311. Image is in the public domain.

But this awe characteristically and traditionally ascribed to the sublime can also serve to “undermin[e...] the quotidian” (Miéville 2009, 510), aligning the illustration with “the vague, elusive, fragmentary impressions of wonder, beauty, and adventurous expectancy” that H. P. Lovecraft attributed to the weird ([1937] 2004, 175). Indeed, one may argue along Lovecraft’s lines that the representation of the microscopic-turned-visible virion frozen in time seems to entail “the illusion of some strange suspension or violation of the galling limitations of time, space, and natural law which for ever imprison us and frustrate our curiosity about the infinite cosmic spaces beyond the radius of our sight and analysis” ([1937] 2004, 176).

Mark Fisher continued Lovecraft’s line of thinking, noting that the weird centers on “a preoccupation with the strange” and is fascinated with “that which lies beyond standard perception, cognition and experience. This fascination usually involves a certain apprehension, perhaps even dread” (2016, 8). One weird aspect of viruses, which exposes the “unhuman dimensions” of “unhuman life” (Thacker 2009, 40), is how they transcend accepted divisions between life and death: the only traditional life process that a virus undergoes is reproduction—which means producing copies of itself inside a host. Despite the emergence of variegated and differentiated definitions and descriptions of ‘life,’ viral existence is incommensurate to all (or at least most) of them; viruses raise questions about the ontology of life. Indeed, occupying a netherworld between life and death, invisible to the human eye, but made visible by harnessing the power of human-made technology in an attempt “to produce

meaning, to make the world signify, to render it visible" (Baudrillard 1987, 56), SARS-CoV-2, ready to pounce on its human prey, evokes not just fear but dread. This dread results from how the weird "is that which *does not belong*. The weird brings to the familiar something which ordinarily lies beyond it" (Fisher 2016, 10). As the illustration anticipates how the virion attacks the individual human body, this attack transforms into an all-out attack on the traditional idea of the human body as separate from its environment. "The weird," as Fisher puts it, "is a signal that the concepts and frameworks which we have previously employed are now obsolete" (2016, 13).

Yet the visual presence of the microscopic-turned-visible virion does more than merely unsettle the idea of the human body as a walled-off, fortified entity: produced by modern imagining technologies and recent bio-medical insights, the illustration cannot but acknowledge how one of the "great divides" (Latour 1991) of modernity—that between nature and culture—is a fiction. This gesture ties in with discourses surrounding the Anthropocene, which, Rebecca Evans has noted, is underpinned by an idea of "our own world as something other than what we had thought it was. It depicts the strangeness of the stories that modernity has told (about) itself, estranging us from where we thought we lived by announcing our actual location in an unfamiliar world" (2018, 485). Eugene Thacker has likewise observed that "[t]he world is increasingly unthinkable—a world of planetary disasters, emerging pandemics, tectonic shifts, strange weather, oil-drenched seascapes, and the furtive, always-looming threat of extinction." "[T]o confront this idea," he continues, "is to confront an absolute limit to our ability to adequately understand the world at all." Part of the problem of understanding the contemporary reality "lies in comprehending the world in which we live as both a human and a non-human world" (2011, 1–2).

Indeed, the combination of the virus being incredibly small but surrounded by dark space acknowledges that "there are a bewildering variety of scales, temporal and spatial, and that the human ones are only a very narrow region of a much larger and necessarily inconsistent and varied scalar possibility space, and that the human scale is not the top scale" (Morton 2017, loc. 3082). The illustration is not so much embedded in the tradition of conceiving the human "body under siege by foreign armies" (van Dijck 2005, 12); rather, it highlights "the ghostly presence of [...] nonhumans, including the 'nonhuman' aspects of ourselves" (Morton 2017, loc. 953). At the same time, the vast temporal and spatial scales of outer space evoked by the darkness integrate humankind in larger, supra-planetary contexts, exposing how little we know—about the virus, about the world, about the universe, about ourselves. To see the virus means to gain access to a kind of weird knowledge, usually inaccessible to human eyes, but made visible by modern technology. This access to new knowledge, to weird knowledge, reveals fissures in the foundations of our established (and, perhaps, outdated) knowledge systems: the more we seem to know of the world, the more we not only come to understand how little we know but also how

much danger is 'out there,' testifying to how the weird "suggest[s] reality to be richer, larger, stranger, more complex, more surprising—and, indeed, 'weirder'—than common sense would suppose" (Freedman 2013, 14). As the horizon of potential knowledge is expanded, the knowledge-based foundations of humanism are shaken, and human pretenses of grandeur become unsettled.

In this context, pandemics, to draw on Stuart Sim, "are very conducive to an existentialist interpretation, particularly its emphasis on the essential absurdity of human existence and the lack of any overall meaning or destiny to it" (2023, 70). This argument evokes Slavoj Žižek's point that "viral epidemics remind us of the ultimate contingency and meaninglessness of our lives" (2020, 52). Yet whereas Žižek cautions against "treat[ing] the ongoing epidemic as something that has a deeper meaning: the cruel but just punishment of humanity for the ruthless exploitation of other forms of life on earth," as such an understanding of COVID-19 would magnify humanity's role and ignore the fact that "we are just a species with no special importance" (2020, 14), the COVID-19 pandemic confronted us with the paradoxes of the Anthropocene condition: humanity is a biological and geological agent whose "activities have become so pervasive and profound that they rival the great forces of Nature and are pushing the Earth into planetary *terra incognita*" (Steffen et al. 2007, 614). And just as different and differentiated culpabilities, responsibilities, and vulnerabilities define the Anthropocene, so did (at least) different vulnerabilities become visible during the COVID-19 pandemic.

Anthropocene Realities

The CDC illustration might help contain the virus through a set of representational strategies. At the same time, it at least implicitly draws attention to the fact that, in the end, the virus remains uncontainable. In a way, then, the illustration epitomizes both an attempt at controlling the virus and the fear, or feeling, of its uncontrollability, which, in turn, characterizes the Anthropocene's growing sense of "out-of-control-ness," to draw on Nigel Clark's words (1997, 79). To be sure, this strong connection between the coronavirus and the Anthropocene was not only implied by the CDC illustration and its interpretations and appropriations; it also found expression in a range of other forms and formats of representing the pandemic, e.g., in an exhibition called *Bestiary of the Anthropocene* on display in Eindhoven in the summer and early fall of 2020 (before touring other cities such as Geneva and Louvain). In the book that provides the basis for the exhibition, an illustration of SARS-Cov-2 features in a section titled "Kingdom of Miscellaneous," alongside entries such as radioactive mushrooms, artificial snow, and cloud seeding. The description of the coronavirus explains that "the COVID-19 pandemic [...] is a disaster that has human origins—a 'product' of the Anthropocene—due to our actions that contribute to weak-

ening natural ecosystems, thus promoting the spread of pathogens” (Nova and disnovation.org 2020, 141). This statement echoes David Quammen’s eerily prescient 2012 book *Spillover*, in which he argues that the increasing frequency of disease outbreaks results from “the convergence of two forms of crisis on our planet. The first crisis is ecological, the second is medical. [...] One: Mankind’s activities are causing the disintegration [...] of natural ecosystems at a cataclysmic rate. [...] Within such ecosystems live millions of kinds of creatures, most of them unknown to science, unclassified into a species, or else barely identified and poorly understood. Two: Those millions of unknown creatures include viruses, bacteria, fungi, protists, and other organisms, many of which are parasitic” (39–41).

However, establishing a clear, direct causal connection between specific parameters of anthropogenic ecological overreach and the COVID-19 pandemic is perhaps a little too easy, as Eva Horn cautions by asking, “Are shrinking wildlife habitats, species migration and dangerously close human-animal contact directly or indirectly responsible for the Covid-19 pandemic?” (2021, 123). As her question implies, they likely all played their fair share in bringing about the spillover, while globalization facilitated and accelerated the virus’s spread around the world. So, the pandemic itself was more of an “emergent effect” (Morton 2010b, 7) resulting from “innumerable uncertainly related phenomena” (Clark 2016, 8) rather than a direct consequence of a specific development. Whatever the case, the tendency to brazenly combine quotations describing the Anthropocene and the COVID-19 pandemic resonates deeply with the conviction that the pandemic may have been “the Anthropocene in fast-forward—a model and an example” (Horn 2021, 132).

Consciously or not, then, the CDC rendering is embedded in these discourses that connect the pandemic to the Anthropocene. By evoking a cosmic perspective and focusing on a weird form of (non-)being that unsettles the binary of life and death, it reveals that, to allude to the title of a 2016 book by Ed Yong (and, of course, Walt Whitman), we contain multitudes. As an icon of both the COVID-19 pandemic and the Anthropocene, the CDC illustration brings all of these extravagating ideas together, expressing a dawning understanding of “a new phase of history in which nonhumans are no longer excluded or merely decorative features of [...] social, psychic, and philosophical space,” to draw on Timothy Morton’s definition of the Anthropocene (2013, 12). Indeed, the COVID-19 pandemic has forever entangled emerging diseases with the Anthropocene condition.

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Viral Commemoration

Towards a Typology of COVID-19 Memorials

Ingrid Gessner

On May 5, 2023, over three years after the World Health Organization (WHO) officially characterized the global COVID-19 outbreak as a pandemic, WHO Director-General Tedros Adhanom Ghebreyesus declared an end to COVID-19 as a public health emergency. However, he emphasized that this declaration did not signify that the disease was no longer a global threat. As of early May 2023, the cumulative cases worldwide stood at more than 750 million, with nearly seven million deaths worldwide and one million deaths in the United States alone.¹

In light of its devastating impact, COVID-19 is poised to be the most extensively commemorated health crisis in human history. This viral commemoration fever is already evident in the multitude of memorials being created, markers being installed, and gardens being dedicated. Unlike previous memorial cultures, the commemoration of COVID-19 is deeply influenced by globalized and interconnected media technologies, which have played a crucial role in shaping the collective memory and perception of the pandemic's effects. The pervasive reach of digital media has allowed for a real-time, shared global experience, making the pandemic's impact more universally acknowledged and memorialized. It is reasonable to contend that COVID-19 will likely be second in scale only to the commemorative momentum generated by World War II. Furthermore, while COVID-19 constituted a global pandemic, its impact varied significantly around the world, adding layers of complexity to its commemoration across different cultures and communities. The pandemic has also exacerbated digital inequalities and the vulnerabilities faced by those without access to the internet, mobile phones, and tablets (Beaunoyer et al. 2020; Pitsillides and Wallace 2022, 61; Wang and Tang 2020).

Many COVID-19 memorial projects seek to give a sense of the scale of loss as well as draw attention to the individual victim or to the heroic frontline workers. They use what have become household items of memorial design, such as names, walls, stones, trees, eternal flames, and water; however, they often appropriate these

1 The numbers were tabulated by the WHO's Coronavirus Dashboard, which has collated key statistics since early in the pandemic, <https://news.un.org/en/story/2023/05/1136367>.

elements in surprising and innovative ways. This chapter aims to take stock of the aesthetic forms, subjects, and locations of COVID-19 memorials worldwide. A large sample of proposed and completed memorials illustrates what I have elsewhere called “a trajectory of commemoration” (Gessner 2015). Such a trajectory is set into motion after crises that cause traumatic experiences, which has most notably happened after the 9/11 terrorist attacks.

In the trajectory of commemoration, the first memorials to appear are personal expressions of grief arranged in collective shrines (category 1). Second, these impromptu memorials give way to documentary memorials in the form of temporary installations or exhibitions that collocate earlier memorials or shrines, sometimes carrying explicit political messages (category 2). Third, architectural and public art proposals stipulated by a variety of individuals, groups, or larger constituencies culminate in the construction of permanent memorials or carefully planned temporary installations (category 3). Because some time has passed since the event that the memorials commemorate, they are often more metaphorical and abstract than memorial shrines or documentary memorials. They are often regarded—or at least planned—as an endpoint or place of closure.

Although COVID-19 memorials commemorate a public health matter rather than a violent event, the trajectory of commemoration mirrors patterns seen in other forms of memorialization. As outlined above, memorials often evolve from collective shrines to installations collocating earlier shrines, and finally to permanent memorials. However, in the case of COVID-19, this process has occurred in a simultaneous rather than successive manner. This shift can be attributed to two main factors: First, when memorials began appearing, the pandemic was ongoing, and the tally of deaths continued to rise with no foreseeable end, creating both an immediate and ongoing need for commemoration. Second, global interconnectedness and the pervasive influence of social and other media have transformed how we experience and memorialize events. The real-time dissemination of information and shared global experiences have accelerated commemorative processes, creating a felt urgency and simultaneity that distinguishes COVID-19 memorials from those of previous eras.

Affect and the Creation of Memorials

Memorials are commonly perceived as spaces for contemplation and healing, often established in the aftermath of catastrophic events. These sites are contextualized by feelings of grief and loss, as well as the realization of one’s vulnerability and longing for stability and unity. Serving a dual purpose, they recognize and preserve memories while remembering and often honoring individuals. In recent decades, there has been a notable increase in memorial creation and commemorative practices.

This trend, called “memorial mania” by Erika Doss, signifies a heightened public engagement with historical and memory-related issues (2010, 2, 9–10).

Memorials can be interpreted as “archives of memory” (Cvetkovich 2003, 7); repositories that function as visual and material conduits for emotional experiences, reflecting the sentiments of the people and groups responsible for their inception. Thus, it is valuable to examine the affective contexts, encompassing emotional, cultural, and societal dimensions, in which COVID-19 memorials are conceived, constructed, and experienced.

To restore or maintain a sense of order and unity, a significant number of COVID-19 memorials incorporate narratives centered on innocent victims, courageous frontline workers, and acts of individual heroism. Inevitably, the Vietnam Veterans Memorial in Washington, D.C., created by Maya Lin, comes to mind, whose initial purpose formulated by the group of veterans who proposed it was to ‘heal a nation.’ The black granite memorial deviates from the norm by inviting individuals to descend instead of directing their gaze upwards. Lin’s design, notable for its expansive physical presence and intimate tactile qualities of the more than 58,000 names of service members of the US armed forces who died in Vietnam etched into the stone, leaves an indelible mark. Popularized by Lin’s wall, names of victims have become the essential ingredient for modern memorialization. Making pencil rubbings of the names of the victims etched on the wall both connects visitors to the dead soldiers and produces a memento, which, as Susan Stewart (1994) suggests, authenticates the experience.

The Spanish Flu Memory Gap

American historical memory has been preserved or sanitized through memorials and museum exhibitions; however, some events and experiences have fallen into oblivion. One such void or blank space stands out: the 1918 influenza pandemic that killed at least 50 million people worldwide (with about 675,000 deaths occurring in the United States). The pandemic has seen close to nil public memorials or commemorative markers, neither to those who perished nor to those who literally fought the battle against the disease. The latter, mostly doctors and nurses, would have been natural recipients of public gratification and heroization through memorials in any comparably fatal catastrophe. The same is true for the fictional response, as literary scholar Elizabeth Outka asserts when she remarks that the influenza pandemic “has been hidden since its arrival, drowned out by its overwhelming scope, by the broader ways outbreaks of disease are often muted, and by the way the human-inflicted violence of the time consumed cultural and literal attention” (2019, 2). Alexandra Alter (2022), a *New York Times* contributor, confirms that there is scarce notable literature directly inspired by the 1918 flu pandemic. Writers sidestepped the topic or made

only subtle references to it. This might be attributed to the pandemic's timing at the end of World War I, and the fact that the impact of an invisible virus lacked the elements of gripping war stories.

However, COVID-19 stirred a renewed interest in the 1918 flu pandemic, prompting individuals and governments to explore the historical context, parallels, and lessons that could be drawn from the earlier pandemic. Some media outlets started looking for flu memorials when COVID-19 hit (e.g., Segal 2020). Of the few examples that exist, many were only unveiled around the centenary of the pandemic and are located in cemeteries. For example, a small stone bench was installed at Hope Cemetery in Barre, Vermont, in 2018.² A city in Baden-Wuerttemberg, Germany, erected its first 'pandemic memorial' in 2019 on a cemetery in Wiesloch by re-installing the gravestone of Anna Ritzhaupt, born Zirkel, seventy years after its removal. A plaque, which was added to the site in April 2020, now turns the gravesite into a memorial that commemorates the dead of the 1918 flu as well as the COVID-19 pandemic. It reads, "People are missing... . They are missing from our memories and from our lives" ("Pandemie-Denkmal" [2019] 2020).³ The most noteworthy memorial in terms of size and location stands at Pukeahu (Mt. Cook) in central Wellington, New Zealand's capital. Designed by Neil Pardington and installed in 2019, the 1918 Influenza Pandemic Memorial Plaque features a graphic representation of the scale of the pandemic's impact across New Zealand's regions from north to south, making visible that the pandemic struck the military camps hard, and that the Māori death rate was seven times higher than for non-Māori ("Pukeahu Park Guide" 2023).

Why did the 1918 flu fade from cultural memory so quickly? One reason commonly given is the profound experience of the Great War, World War I. Another reason could be the fact that one would have needed to admit failure, of having fallen victim to a disease one was not able to control or defeat.⁴ Furthermore, the general forgetfulness about the flu pandemic may also be attributed to the absence of major epidemics in the collective memories of most Western European and North American societies since the introduction of the polio vaccine in 1955/1961.

The COVID-19 pandemic presents a different, much more memory-conscious approach: archives and museums started collecting artifacts when the first repercussions of the outbreak were being felt. The need to remember has become a mod-

2 Brian Zecchinelli, whose grandfather died of the flu in the fall of 1918, installed the bench (see Segal 2020).

3 All translations of materials in languages other than English are by the chapter's author.

4 World War I ended on November 11, 1918, with the victory of the Allies over Germany. Without an equivalent of today's communication systems and global media infrastructure and with most countries except for Spain censoring their media, the 1918 flu (or Spanish flu because there was no media censorship in Spain) was a threat that was experienced locally and not shared globally—at least not at the time.

ern necessity, a mandate. Behind it, one might assume political motivation and a wish for a coherent authoritative narrative, closure, and healing. However, before closure and healing could even be thought of, collective COVID-19 memorial shrines began to appear.

Category 1: Collective Shrines and Online Memorials as (Digital) Spaces of Mourning

Collective memorial shrines typically emerge as the initial response following a tragic deathly event. A case in point is the immediate aftermath of the 9/11 terrorist attacks when such memorials appeared throughout New York City. They often take the form of seemingly impromptu gatherings where individuals, moved by grief and a sense of solidarity, bring flowers, candles, photographs, handwritten messages, and other personal items to designated locations. I call the gatherings and emergence of shrines *seemingly* spontaneous because I believe there is a deep-felt need behind them that cannot be attributed to spontaneity alone. Mourning, which was once a private practice restricted to private spaces (Doss 2010, 93), has become a publicly shared practice at collective shrines. The memorials reflect the community's need to collectively express their sorrow, pay respects, and commemorate the lives lost. C. Allen Haney, Christina Leimer, and Juliann Lowery (1997) point to the shrine's function as a political act because of their effectiveness in calling for respect but also for attention after tragic death.

The situation was notably different, especially during the early days of the COVID-19 pandemic due to the implementation of social distancing measures, enforced quarantines, and lockdowns. In a few instances, memorials to previous pandemics were appropriated as collective shrines to commemorate COVID-19 victims. As early as March 2020, the Vienna Plague Column (also known as Trinity Column; *Wiener Pestsäule*) became a site of pilgrimage for people in the city to light candles and ask for blessings ("Schütze uns vor dem Coronavirus" 2020). In similar fashion, people began flocking to the 1918 Flu Memorial in the old Raia cemetery outside of Goa, India, in July 2020. While the cemetery was a place to bury and commemorate the dead, people began to pray for the survival of loved ones at the Flu Memorial. The sudden renewed interest in the stone monolith, whose top had collapsed due to lack of care and was scheduled to be demolished, led to the restoration of the memorial by October 2020 (de Souza 2020). However, these two physical memorial shrines in real places were the exception.

For most people, the inaccessibility of ritual practices of mourning, such as attending funeral services, "left a deep rift, [which] technology [was] expected to fill," as Stacey Pitsillides and Jayne Wallace point out (2022, 61). Commemorative activities shifted to print and online platforms, in particular. Some of the earliest personal

mementos of the global pandemic appeared in the form of obituaries in news outlets. On May 24, 2020, the *New York Times* printed names and biographical details of COVID-19 victims, calling attention to the death toll approaching 100,000 in the United States at that time. The list of names on the front page continued on three pages inside the newspaper's main news section. Moreover, an interactive visualization of the victims' names, ages, hometowns, and short taglines about their lives are still accessible online (Barry et al. 2020) and draw attention to racial, local, and class disparities of the pandemic due to health inequities.⁵ The *New York Times's* list of names is a tribute to each individual who has been lost, but it is also a collective memorial in the sense of a publicly shared practice after a tragic event—and a powerful public media statement about a massive health and inequity crisis (Okonkwo et al. 2021).

An even earlier instance of a collective memorial that, despite its digital nature, closely resembles the memorial shrines that arise in the aftermath of tragedies, is the Sina Weibo2 account of Dr. Li Wenliang, the Wuhan doctor who gained recognition as the COVID-19 whistleblower. When Li died on February 7, 2020, his microblogging site “became a virtual space for shared commemoration, conversation and critique [...] and a place for netizens to continue bonds that strike a balance between grief, political commentary and everyday encounters like referencing the Dr's love of fried chicken” (Pitsillides and Wallace 2022, 63). In fact, with COVID-19, both feelings of grief and outrage over political decisions have been motivating factors for commemorative practices from the beginning.

Another example from China revolves around the utilization of the code-sharing platform GitHub to establish a repository that archives personal stories detailing the Chinese experience during COVID-19, particularly the lesser-covered early stages in Wuhan (Liu [2020] 2023). Although it was not initially conceived as a memorial, it swiftly evolved into a collective grassroots tribute. Pitsillides and Wallace explain that this archive “weave[s] together stories, which include encounters with the dead, to provide momentary snippets of what it was like to be at the centre of where the pandemic began” (2022, 64).

Pitsillides and Wallace rightfully point out that “the nature of online memorials has shifted over time from simple image and text-based guest books [...] to increasingly creative practices that have given rise to new perspectives on memory and legacy” (2022, 61). COVID-19 commemorative online memorials adopt these practices in their digital walls and shrines. Of these, most go back to efforts by groups and

5 However, listing the names of those killed through racist violence from Native genocide to slavery to the killings of countless people under police custody would literally and metaphorically blow up the newspaper pages. These events and individual experiences are indeed more seldomly subject of public naming and commemoration, not because they have fallen into oblivion but because no public consensus has been reached.

entities that existed before COVID-19, such as local and community groups, news outlets, religious organizations, employers, city governments, and healthcare and social workers.

For example, *The City*, a nonprofit news outlet in New York City, launched an on-line memorial a few months into the pandemic. Many cities created digital memorial walls.⁶ The Manhattan Transit Authority, together with the families of the employees lost to COVID-19, came up with both a digital version and a public display of a memorial. Family members shared photographs and selected the background color for the posters, which were displayed in subway stations across Manhattan and are also still accessible online (“Remembering the Colleagues We Lost” n.d.).

Examples of religious communities who have created online memorials include the Muslim-run Zakat Foundation of America’s COVID-19 Memorial Wall (“COVID-19 Memorial Wall” n.d.), and the “Remember Me” project created by Dean David Ison of London’s St Paul’s Cathedral (Illustration III.1). Created on May 22, 2020, the latter has grown to more than 11,500 tributes commemorating COVID-19 victims with photographs and text messages that can still be accessed online (“Remember Me” 2024) and via four digital kiosks in the Middlesex Chapel of St Paul’s Cathedral. The online memorial is complemented by a physical memorial in the form of a new inner porch in St Paul’s north transept (see category 3).

Healthcare and social workers have also created online memorials. In Russia, a group of healthcare workers set up a website that highlights the death toll among this group by linking to individual obituaries in local newspapers or Facebook groups (*Слусок памяту* n.d.). In India, frontline workers initiated the National COVID-19 Memorial. The online memorial of the Covid Care Network, a non-governmental organization led by a team of doctors in the city of Kolkata, commemorates Indians who have lost their lives to COVID-19. The mission statement reads, “Covid took them away mercilessly and struggling with science, as we did, could not bid them farewell. This National Covid Memorial is a space for the thousands of Indians whom we lost to Covid fury. It has stories engraved in words that shed tears. The unsung tunes of our tribute to the Covid Martyrs are kept here in this National Covid Memorial” (“About Covid Memorial” 2023). Despite being initiated by doctors and health workers and maintained by journalists, the virtual memorial not only addresses those groups but also allows family members and friends of the victims to pay their tributes.

6 Many US cities and communities set up localized online memorial walls for their citizens in a similar fashion as these two: St. Louis (<https://www.stlouiscovidmemorial.com/>) and Chicago (<https://www.chicago.gov/city/en/sites/covid-19/home/memorial-wall.html>).

Illustration III.1: “Remember Me” Memorial, St Paul’s Cathedral, London

Photos by Ingrid Gessner, August 14, 2024.

These virtual spaces of mourning democratize the memorialization process and may shed light on new emerging rituals surrounding death. Many digital memorials offer participatory features akin to collective shrines, but their longevity and access policies remain uncertain. Furthermore, the intersection of public and private spaces is a central concern in the realm of online experiences, where individuals can maintain both private lives and entertain open, public personas simultaneously. Digital memorial walls add complexity to personal expressions of mourning because these expressions can reach a broad audience and potentially impact how the tragic event is perceived, as well as the structures that surround it. Additionally, control within this space is both more immediate and more discreet compared to collective shrines in the physical world. Administrators can quietly remove a personal message or openly prohibit specific forms of interaction. These are issues that challenge

the democratizing potential of these spaces but which may also facilitate a healing process for those in mourning.

Category 2: Documentary Memorials, the Scale of Loss, and Political Commentary

In the trajectory of commemoration, documentary memorials in the form of temporary installations or exhibitions that collocate earlier memorials are second to emerge. They follow collective memorials, as (re)organized meta-shrines or as original creations and convey essential facts or information. This does not preclude that they often appear at the same time or only shortly after the collective memorial shrines and online memorial walls. For example, after the 9/11 terrorist attacks, a wall near St. Vincent's Hospital in Lower Manhattan that was plastered with missing-person flyers became known as the "Wall of Hope and Remembrance." When the flyers near the hospital had to be taken down, they were integrated into a documentary tableau that was secured under plexiglass. Like art projects, such as the 5,000 photographs by 3,000 professional and amateur photographers collected for the exhibition of *Here Is New York*, the wall at St. Vincent's represents a documentary effort to mark and remember the loss (Gessner 2015). These types of memorials are often, but not exclusively, initiated by individuals, who are often artists.

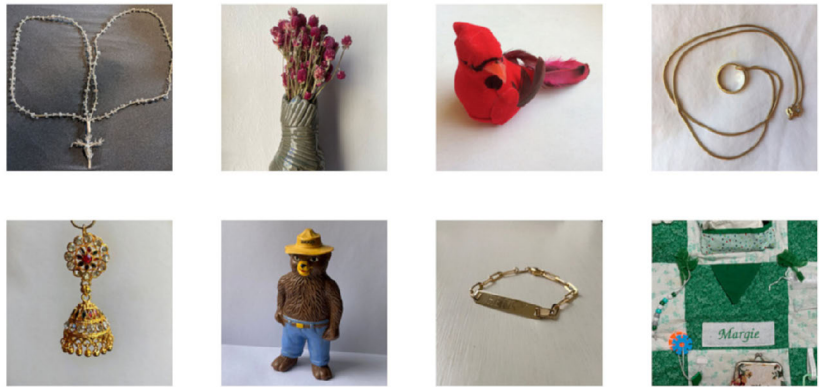
In March 2021, one year into the pandemic, the *New York Times* asked its readers to submit photographs of objects that reminded them of the loved ones they had lost not only to COVID-19 but to all manner of causes. At that time, one in three Americans knew someone who had died because of the coronavirus. Jaspal Riyait, the section editor, explained, "I've spent the last year looking for images to reflect the devastation of the pandemic and the grief it has wrought. [...] I wanted to find a way to humanize the death toll and re-establish the visibility of those who had died" (2021). The interactive website, designed by Umi Syam and titled "What Loss Looks Like," features photographs and personal stories (Blum and Riyait 2021). Items range from a gold bracelet that belonged to a father and now never leaves his daughter's wrist because she is desperate for any connection to his memory (see Illustration III.2, second row from the top, third item from the left) to a cast iron skillet that, in 1947, was given as a wedding present to the now-dead parents of a man who sees it as a "symbol of something that, in its own way, endures." Framed in this way, the often mundane items become objects that occupy space and tell a story.⁷

7 "What Loss Looks Like" follows a practice that has long been established in traditional museums, which showcase artifacts to allow viewers to make a connection to the past. This tradition is reflected in a *New York Times* photo essay of objects collected from the World Trade Center and surrounding area on 9/11 (<https://www.nytimes.com/interactive/2015/09/11/nyr>

Illustration III.2: Photographs of objects remembering lost ones depicted on the New York Times website

BY DANI BLUM AND JASPAL RIYAIT APRIL 6, 2021

Interviews have been edited and condensed for clarity. Tap on the images to read about each artifact. You can also [submit your own image and story](#).



Screenshot from Dani Blum and Jaspal Riyait, "What Loss Looks Like," *New York Times*, April 6, 2021, <https://www.nytimes.com/interactive/2021/well/covid-death-grief-loss.html>.

Efforts to create documentary memorials began before 2021. In May 2020, the Museum of the City of New York was interested in how the entire city was viewing this moment of collective historical experience (Illustration III.3). They invited everyone to share photos—taken from an appropriately socially-distanced perspective—documenting personal experiences and to post them on Instagram using the hashtag #CovidStoriesNYC and tagging @museumofcityny ("#CovidStoriesNYC" 2020).⁸ In breaking down the boundary between professional and amateur, the

egion/911-artifacts.html), and exhibits, such as Elisabeth Smolarz's Encyclopedia of Things 2014–19 (<https://www.smolarz.com/>), Kija Lucas's Museum of Sentimental Taxonomy (<https://www.themst.org/>), Jody Servon and Lorene Delany-Ullman's Saved: Objects of the Dead (<https://jodyservon.com/projects/saved>), as well as books like Bill Shapiro and Naomi Wax's *What We Keep* (<https://www.whatwekeep.org/>).

8 Another similar example is the Coronavirus Journaling Project of the National Women's History Museum in Alexandria, Virginia. Initiated in the spring of 2020, the project invited women and girls to submit journals, letters, and photos of their daily lives (<https://www.womenshistory.org/news/national-womens-history-museum-debuts-women-writing-history-coronavirus-journaling-project>).

show democratized the medium of photography. In doing so, the project deliberately referenced *Here is New York*. Both archives are based on the principle of total inclusion.

Illustration III.3: The announcement of the open call via social media to share photographs of socially-distanced New York City by the Museum of the City of New York



MUSEUM OF THE CITY OF NEW YORK LAUNCHES #COVIDSTORIESNYC

Screenshot from “#CovidStoriesNYC,” *Museum of the City of New York*, April 1, 2020, <https://www.mcny.org/covidstoriesnyc>.

Many memorial projects that fall into this second category seek to give a sense to the scale of loss. In September 2020, the organizers of the Covid Memorial Project planted 20,000 US flags on the National Mall. Each flag represented ten lives lost to the virus (Montgomery 2020). As early as May 2020, artist Shane Reilly started planting orange, pink, white, and red flags in his front yard in Austin, one for each Texan resident lost. The number of flags soon exceeded the available space, and Reilly started taking down his memorial and lobbying for a permanent memorial in Austin a year into the pandemic (Ragas 2021; Wright 2020). Such documentary memorial initiatives by individuals are no rare exceptions. Dimid Hayes erected a memorial

shrine outside his house on Lomita Street in Santa Fe with which he documented the virus's human toll. On a walnut farm in Ballard, California, Anne Guynn attached one colored paper heart for each deceased California citizen to cords she had tied to the trees. While the garlands with the dangling hearts first reminded her of weeping willows, the meaning of the installation changed over time: "The wind has blown a lot of the hearts off, so they're scattered throughout the orchard, and I'll find little colored hearts everywhere." In fact, for years to come, hearts might get caught in the harvesting machine and serve as a reminder of lives lost in the COVID-19 pandemic (Block 2020).

Hearts and heart-shaped plants are one of the most ubiquitous traditional means to mourn and commemorate the dead, and they are featured in countless memorials. For example, gold hearts on display in Edina, Minnesota, represent each COVID-19 death in the city (Brooks 2022). Equally counting on the power of hearts, the memorial "Loved Ones Not Numbers" was put up in late August 2020 outside the National Center for Civil and Human Rights in Atlanta. The wall of broken hearts represented the more than 5,300 victims who had died from the virus across the state since March 2020. Family members of each of the victims were invited to come to claim one of the hearts and write a message to their loved ones ("Loved Ones, Not Numbers!" 2022). According to a PBS report, the installation "was also, in part, meant to be a strong message to Governor Brian Kemp to enforce a mask mandate," which he had refused (Barajas 2021).⁹ By visualizing the magnitude of the loss, the broken hearts indeed carried a political message and a call to action.

The Rose River Traveling Memorial is the brainchild of artist Marcos Lutyens, who created a tribute to victims of the pandemic in the form of red felt roses (*Rose River Memorial* 2021). The memorial project, which began in California and included online rose-making sessions, was showcased in Downtown Los Angeles, Santa Monica, Boyle Heights, Garden Grove, Hollywood, Ojai, Culver City (all California), Maui (Hawaii), Harlingen (Texas), Nashville (Tennessee), and Topeka (Kansas). The installation was displayed on 'COVID-19 Victims and Survivors Memorial Day' (March 7, 2022) in Washington, D.C.¹⁰

9 Mask mandates were initially implemented as crucial public health measures to mitigate the virus's spread. However, these mandates underwent a noteworthy transformation, evolving from straightforward public health directives rooted in scientific recommendations to becoming emblematic of broader political and ideological divisions. The debates surrounding their efficacy and perceived impact on personal freedoms turned mask-wearing into a symbol of collective responsibility for some and a contentious issue linked to individual liberties for others. This evolution also involved a notable aspect where some politicians refused to enforce these mandates, further contributing to the politicization of this public health measure.

10 US Senators Elizabeth Warren (D-MA), Edward J. Markey (D-MA), and Martin Heinrich (D-NM) introduced a resolution to memorialize those lost to the COVID-19 and recognize the

By documenting the immense number of lives lost, memorials of this second category can be understood as more than commemorative markers and expressions of grief. Through their capacity to graphically demonstrate the scale of loss, these installations also function as political statements of anger and rage against governmental inaction or late action.

In October 2020, 20,000 empty chairs faced the White House in Washington, D.C., the official residence and workplace of the U.S. President, Donald Trump at the time. One chair stood for ten Americans who had died from Covid-19 (O’Kane 2020). Empty chairs were also at the center of a memorial installation in Pierre, South Dakota, in November 2020 (Barajas 2021). Tribal nations were hit hard by the pandemic (Brodt and Empey 2021; Wang 2021), and since Lakotas pray to the Four Directions, organizers of the Cheyenne River Sioux Tribe and Oglala Sioux Tribe arranged the chairs so that they faced the four cardinal directions.

Similarly, artist Suzanne Brennan Firstenberg planted a white flag for each life lost to COVID-19 on the grounds of the Washington Armory—267,000 flags altogether. While signposting the sheer extent of loss, the white flags also allowed room for personal messages and names, thereby giving a unique identity to each individual lost (Cameron 2021). Firstenberg provocatively named her installation “In America: How Could this Happen...” and repeated it a year later with the memorial installation “In America: Remember.” By then, the number of dead had more than doubled, and hundreds of thousands of white flags on the National Mall, in Washington, D.C., honored the more than 670,000 people in the United States who had died from COVID-19 (Hartigan 2021a). Like the year before, visitors were invited to personalize flags in memory of someone they had lost. For those who could not visit in person, a specifically created website allowed them to dedicate a flag until the deadline of September 30, 2021. These dedicated flags were then displayed in physical form on the National Mall. The website also offered an interactive feature for selecting and viewing individual flags. A composite photograph by *National Geographic* photographer Stephen Wilkes captures the passage of day to night at the “In America: Remember” memorial installation, covering vast stretches of the National Mall (Hartigan 2021b). “The acres of precise, unassuming flags evoked the dignified grief of military cemeteries in Normandy and Arlington. Anything displayed on the National Mall is, of course, political,” writes Danielle Ofri in *The Lancet* (2022).

suffering of COVID-19 survivors in August 2021. The resolution would designate the first Monday in March as ‘COVID-19 Victims and Survivors Memorial Day’ (<https://www.warren.senate.gov/newsroom/press-releases/warren-markey-heinrich-introduce-resolution-memorizing-those-lost-to-and-suffering-from-covid19>). It was not passed and in March 2023, Senators Warren and Markey reintroduced the resolution (<https://www.markey.senate.gov/news/press-releases/senators-markey-and-warren-reintroduce-resolution-memorizing-those-lost-to-covid19>).

Around Christmas 2020, 212 paper lanterns lined the streets of a neighborhood in Fayetteville, Arkansas (Barajas 2021). Mimicking the means of expression used, namely lights and candles, two commemorative rituals performed under the auspices of the federal government appropriated the grassroots effort carried out in Arkansas. On the eve of his inauguration in January 2021, Joe Biden hosted a commemorative event at the Lincoln Memorial. Four hundred lights were arranged along the Reflecting Pool, representing what were then 400,000 US lives lost to COVID-19 (Wise 2021). One month later, on February 22, 2021, President Biden, his wife, Jill Biden, along with Vice President Kamala Harris and her husband, Douglas Emhoff, bowed their heads in a moment of silence as a military band played “Amazing Grace” during a ceremony that—in the words of Press Secretary Jen Psaki—“mark[ed] the solemn milestone of 500,000 American lives lost to COVID-19” (“Press Briefing” 2021; Sanger and Stolberg 2021). When the music stopped, the president made the sign of the cross and turned to walk back inside. The ceremony took place on the bottom of candle-lit stairs leading up to the Truman Balcony, the same balcony on which President Trump, when he returned home from the hospital after having been treated for COVID-19, removed his mask, and walked inside—even as he was most likely still infectious.

In late May 2020, video artist Robin Bell projected the words ‘Covid Memorial’ onto the brick wall of a Subway sandwich shop in Washington, D.C. (Block 2020). Below the title scrolled a slideshow of faces of COVID-19 victims, along with messages their loved ones had posted on social media. On August 31, 2020, relatives of COVID victims gathered for funeral processions that drove past 900 enlarged photos of their loved ones lined up along the streets of Belle Isle Park, Detroit (Bosman et al. 2020). At that time, COVID had claimed the lives of about 1,500 Detroiters. Families were later given the square photos, 4 feet by 4 feet in size, used in the commemoration. While Bell’s installation is another example of a documentary meta-shrine repurposing earlier collective commemoration on social media, the motorcade showcased the enormity of individual loss by combining it with the ritual action of a funeral procession.

Many of the ephemeral or limited-term memorials described in this section are reminiscent of the AIDS Memorial Quilt (Illustration III.4). While the quilt, with its tens of thousands of individual panels, may have a more enduring material quality than paper flags or lanterns, it only comes to life when the panels are put together and displayed together for a limited duration of time.

The AIDS Memorial quilt was conceived in 1985 by Cleve Jones, a gay rights activist, as a way to commemorate the lives of those lost to AIDS. It was first displayed in 1987 in Washington, D.C., covering the National Mall with thousands of individual panels. More than thirty-five years later, the quilt has grown to more than 1.2 million square feet and contains over 50,000 panels, serving as a powerful symbol of remembrance, activism, and solidarity in the fight against HIV/AIDS. By display-

ing names together with personal mementos, it is “a collective work of art fashioned from individual expressions of grief” that ideally lends itself to be adapted (Harris 2022).

Illustration III.4: AIDS Memorial Quilt in front of the Washington Monument



Photo taken on November 27, 1985. From National Institutes of Health, http://aidshistory.nih.gov/tip_of_the_iceberg/quilt.html. Photo is in the public domain.

Inspired by the stories she had heard about the AIDS Memorial Quilt, thirteen-year-old Madeleine Fugate began to work on a Covid Memorial Quilt in 2020. It was first displayed at the California Science Center, Los Angeles, and at the Armory Art Center, West Palm Beach, Florida, later that year. The Covid Memorial Quilt is still growing and being assembled by volunteers around Fugate and her Textiles and Costume Design teacher Wendy Wells. Its exhibition schedule as well as instructions on how to contribute to the quilt can be viewed on the project’s website (*Covid Memorial Quilt* 2023).

The Covid 19 Memorial Blanket Project similarly constitutes a collective work of art. This particular knitting project was started by three women from Ontario, Canada, in 2020 (*The Covid 19 Memorial Project* 2022). As a symbol, a blanket brings comfort to those who lost loved ones and it can also represent the “physical heaviness” of grief (Draaisma 2020).

In the United States, the idea of a COVID-19 Pandemic Memorial Quilt reached the 117th United States Congress. A bill (H.R. 3019) was introduced to the House of Representatives on May 7, 2021. If passed, such a memorial would no longer fit the description of a memorial conceived by individuals or a group; it would fall into the third category of planned and often officially commissioned permanent memorials, tasking “the Smithsonian Institution and the American Folklife Center at the Library of Congress to jointly carry out” this project.

Category 3: Planned Permanent Memorials

Planned permanent memorials fall into the third category in the trajectory of commemoration. I understand permanence not in the sense of everlasting or eternal because the changing needs of societies will decide the memorials’ fates over time; instead, I define a planned permanent memorial as one made of sufficiently sturdy material to guarantee some physical endurance. Most often, permanent memorials are initiated by publicly elected entities or issue groups. These types of memorials usually only materialize after some time has passed. However, when it comes to COVID-19, the almost immediate wish to remember and also to find closure triggered several memorial proposals and led to the quick completion of quite a few permanent memorials early on in the pandemic.

A circular piece of black steel with a flame in the middle was unveiled on May 15, 2020, in Madrid (Illustration III.5). The form of the memorial is rather traditional and a small plaque in front of it reads, “Your flame will never go out in our hearts” (“Monument in Memory of the Victims of the Covid 19 Pandemic” 2023). A second COVID-19 memorial was dedicated in October 2020 in one of Madrid’s major public squares, the Puerta del Sol (Illustration III.5). The simple white marble stone plaque is attached to the Royal House of the Post Office located on the south side of the square; the inscription reads, “The people of Madrid in remembrance of the victims of Covid-19 and especially those who died in solitude.” The historical building houses the office of the head of the regional government of the Autonomous Community of Madrid. Besides the COVID-19 plaque only two other commemorative pieces have previously been attached to the building’s façade: one is devoted to the ‘heroes populares’ who rose up against the Napoleonic invasion of Spain on May 2, 1808, and the other one is a memorial of the victims of the March 11, 2004, terrorist attacks. It speaks to the severity with which Madrileños experienced the first COVID year

that the regional government decided to install the memorial (Mollinedo-Gajate et al. 2021).

Illustration III.5: Monument to the Victims of the Coronavirus (left) and COVID-19 Memorial Plaque, Puerta del Sol Square, Madrid (right)



Photo of the Monument to the Victims of the Coronavirus by Thomas Holbach. From *Wikimedia*, https://upload.wikimedia.org/wikipedia/commons/b/bd/Covid19_monumento.jpg; photo of the COVID-19 Memorial Plaque by Ingrid Gessner, April 5, 2022.

The reason Spain was among the first, if not the first, country to dedicate two permanent memorials might be because in the early months of the pandemic, in the spring of 2020, Spain experienced a significant surge in cases and fatalities. Only one year later, in July 2021, a third memorial was dedicated at the Paseo Marítimo de Juan Aparicio in Torrevieja, bearing the inscription “Torrevieja to the victims of Covid-19. You left in solitude, but you will remain forever in our memory.” Created by artist Pepe Miralles, the iron sculpture depicts two people embracing in Keith Haring style on top of a stone base. According to Miralles, he was inspired by “all the hugs we have not been able to give during the pandemic” (“Torrevieja Unveils Sculpture,” 2021).

Brazil’s Infinity Memorial in Rio de Janeiro, dedicated on September 20, 2020, uses a well-known memorial language and symbolism with 4,000 names etched in durable material.¹¹ Situated in the Penitencia cemetery, where many of Rio de Janeiro’s COVID-19 victims are buried, the 39-meter (128-foot) long ribbon of undulating steel pays tribute to those who died from the virus and provides families and friends with a marker for their losses in one of the worst affected cities in Brazil (Silva

11 According to an AP report, Rio de Janeiro state had reported more than 17,600 deaths and more than 250,000 confirmed cases of COVID-19 at the time of the memorial’s dedication in September 2020, second only to Sao Paulo state in Brazil (“Brazil” 2020).

and Ribeiro-Alves 2021). The Brazilian architect Crisa Santos designed the memorial, conceiving the idea of a serpentine steel band after visiting several cemeteries.

Illustration III.6: London Blossom Garden in Queen Elizabeth Olympic Park, London



Photo by Ingrid Gessner, August 18, 2024.

In its serenity, the COVID-19 Memorial in the Baker Street Jewish Cemeteries in Boston mirrors the one in Madrid. Two benches and a memorial stone were placed in a circular grassy area, surrounded by paths: one bench honors the caretakers of COVID-19 patients, the other, the ‘last responders,’ in Jewish faith, the holy workers tasked with caring for the dead and burying them. Dedicated in an online ceremony on July 9, 2020, Tammuz 17, a day of public mourning on the Jewish calendar, the pre-recorded event drew a large viewership. What seems notable is that during the nineteenth century, the grounds of the 42 Jewish cemeteries in use since the 1920s were once home to Brook Farm, a utopian experiment in communal living.

On February 21, 2021, the Codogno pandemic memorial was unveiled. The date coincided with the one-year anniversary of the first reported local transmission of COVID-19 in Europe and the supposed designation of a ‘patient zero’ in Italy. Italy was an early hotspot and epicenter of COVID-19 in Europe, and the pandemic caught the country off-guard. The Codogno memorial features a sculpture with three steel columns. Inscribed on a platform below the columns are the Italian words for resilience, community, and restart (*resilienza*, *comunità*, and *ripartenza*). Like the Madrid memorial, this is not a sweeping memorial to the historical mo-

ment but a simple place to mourn the dead. Similarly, a hill of stones memorial in nearby Casalpusterlengo, Italy, commemorates townspeople who have died from COVID-19 with personalized pebbles.

In Italy and many other places, parks, woods, and forests of memory have been created since 2020. In the summer of 2020, the Italian architect Angelo Renna suggested planting 35,000 cypress trees in Milan's historic San Siro stadium to turn it into a public memorial to commemorate the COVID-19 victims, calling it San Siro 2.0 – Monumento per la vita. While Renna's proposal has not yet been realized, a similar project in Bergamo, only an hour away from Milan, officially opened on March 18, 2023. The Bosco della Memoria (Wood of Memory), a living memorial of eight hundred tree seedlings, situated in the greater Parco della Trucca, is an official endeavor by the Italian government to commemorate the more than 100,000 Italian COVID-19 victims. As early as March 2021, the Italian Senate unanimously approved a bill designating March 18 as a national day in remembrance of the victims of COVID-19 ("Italy Mourns Its Covid Dead with Remembrance Day on 18 March" 2021; "Vittime del Covid" 2023).

Other memorial designs include the London Blossom Garden in Queen Elizabeth Olympic Park, London, which opened on May 24, 2021 (Illustration III.6). Another example of a landscaped COVID-19 memorial project is a formerly EPA-designated Superfund priority being converted into a public park in Jersey City, New Jersey.¹² A pergola-like structure with the names of the city's COVID-19 victims will give relatives and friends of the dead a place to mourn. The memorial portion of the park will include a grove of 503 trees planted in a newly created Skyway Park in honor of residents who died of the coronavirus.¹³ Many more cities and communities, particularly in the United Kingdom, have established memorial gardens or sections within existing parks, recreation areas, and cemeteries for those who lost their lives to COVID-19. Four projects shall serve as further examples:

- On April 3, 2023, Covid Memorial Garden opened in Plaistow Park (Illustration III.7). Newham, where the park is situated, is one of the London boroughs that was most heavily impacted by COVID-19, as 1,013 residents lost their lives. The garden features three timber totems and draws attention to the changing seasons with its well-thought-out planting. The totems were specifically designed for the memorial garden. Together with the previously existing trees and the

12 The site, polluted by hazardous chemicals when it was used as an industrial landfill in the 1970s, has been remediated and capped to make it safe for visitors, but extra soil will be brought in for planting.

13 Overall, however, more than 503 Jersey City residents have died from COVID-19, according to the city's online coronavirus dashboard.

new planting, they represent the themes of regrowth, support, and community (“Covid Memorial Garden – A Place of Reflection” 2024).

- A Covid garden in Telford Town Park, Shropshire, was dedicated on May 12, 2023. It features benches, trees, and wild meadow areas, and a sculpture (Tudor 2023).
- On December 3, 2022, the city of Birmingham opened the first of 10 Covid memorial gardens planned in all ten constituencies to give people somewhere near where they live a focal point to remember their loved ones (“Locations of City’s COVID-19 Memorial Community Gardens Are Announced” 2022; “Birmingham’s First Covid-19 Memorial Garden Opens” 2022).
- In March 2021, hundreds of yellow ribbons were tied to trees near the Magna Carta memorial in Surrey to remember those who died from COVID-19. The tribute was organized by an organization called Forest of Memories, which proposed planting a tree for every Covid victim in new forests across the country (Pallo 2021). The project is ongoing, and the organization plans to establish multiple Forests of Memories across the UK (“Forest of Memories” 2022).

Illustration III.7: Covid Memorial Garden in Plaistow Park, Newham



Photos by Ingrid Gessner, August 18, 2024.

Compared to the purposely decentralized garden memorials, the National Covid Memorial Wall in London is a much more central place of remembrance than the one in London's Olympic Park. The wall was created in spring 2021, at the same time as the one in Olympic Park. It originated in a grassroots effort to remember those who died during the pandemic (see Illustration III.8). The public initiative managed to fill a 6.5-foot-high wall with close to 150,000 hearts, each standing for a person with COVID-19 marked on a death certificate in the United Kingdom. The wall stretches from Westminster Bridge, opposite Big Ben and the Houses of Parliament, to Lambeth Bridge, about 500 meters away.

Illustration III.8: The National Covid Memorial Wall, London



Photo by Ingrid Gessner, August 16, 2024.

It is striking that, so far, few physical memorials like the London wall bear the designation 'national' in their name. The only other example I have come across is the planned decentralized National Covid Memorial, which is the major project agenda of the Marked by Covid group, which calls itself a "survivor-led movement for pandemic justice and remembrance" based in San Francisco ("About" n.d.). The organization works with cities across the United States to create physical memorials with an augmented reality component dedicated to those who died. The prototype of the

memorial comprises four accessible ramps leading to a small circular raised base that can be used to lay flowers, photographs, and candles. Instead of a traditional plinth, which may have carried an actual analog statue, the base of the National Covid Memorial supports a virtual helix of COVID-19 victims' photographs using augmented reality technology (Porterfield 2022).

A growing number of COVID-19 memorials are asking questions of how to include sacrifices made by ordinary people, such as healthcare workers, garbage collectors, grocery store clerks, and those who stayed home to 'flatten the curve.'¹⁴ In the United States, New York City's Department of Sanitation unveiled what it proclaimed was the city's first permanent, free-standing memorial to pandemic victims on May 20, 2021, in downtown Manhattan outside one of the department's salt sheds. The statue was dedicated to Raymond Copeland and eight other sanitation workers lost to COVID-19.¹⁵ Before it was permanently installed outside a department garage on Spring Street in Manhattan, the statue traveled to numerous department garages during the summer of 2021. The memorial's name, *Forever Strongest*, refers to sanitation workers known as 'New York's Strongest' for ensuring a clean, safe, and healthy city. The sculpture, designed by Bernard Klevickas, a Department of Sanitation employee, iron shop worker, and machinist, features a shiny bird drawing back a steel drapery to reveal an urn atop a pillar (Brooks 2021).

A similarly group-specific memorial to be dedicated to New York City's essential workers named "Circle of Heroes" was scheduled to be completed by Labor Day 2021 before it was put on hold due to residential protest in the Battery Park neighborhood. Criticism focused on the memorial's design, which included nineteen new trees but also new pavement that would replace lawn space, as well as an "eternal flame" with a nonstop open fire which would have a significant carbon footprint as well as pose a hazard to playing children (Fink 2021).

The COVID-19 Heroes Struggle Monument in Gasibu Park, Bandung, Indonesia, is another group-specific memorial. Work on the memorial had begun before the pandemic, but in the wake of the crisis, the West Java provincial government decided to dedicate the massive stone tower to what it termed 'COVID-19 heroes.'

14 'Flatten the curve' was a phrase commonly used during the COVID-19 pandemic, emphasizing the need to implement measures to slow the virus's spread and prevent a rapid surge of cases that could overwhelm healthcare systems. The goal was to distribute the number of infections over time, ensuring that medical resources could adequately handle the demand.

15 The NYC Sanitation Department was not the hardest hit of city agencies. More than 300 city employees died from the virus, as well as 159 subway, train, and bus workers employed by the Metropolitan Transportation Authority, a state agency. In addition to commissioning the memorial, the Sanitation Foundation distributed 85,000 masks, 350 gallons of hand sanitizer and thousands of meals to the sanitation workforce, and the sculpture is also a monument to their dedication to supporting sanitation workers in ways both practical and symbolic (Brooks 2021).

The names of 300 civil servants and health workers who died are displayed on the lower tiers of the memorial. In addition to the stone memorial, two statues will be erected—one for mourning and the other for happiness—symbolizing the hope for healing. Indonesia, with a population of 270 million, ranks as the fourth-most populous country globally and is among the most significantly impacted by the coronavirus in the region (“Indonesien gedenkt Corona-Opfern” 2021; Taylor 2023).

Not all memorials in this category adhere to traditional forms of commemoration, like plaques, statues, trees, inscribed names, and eternal flames. In Austria, two abstract memorial projects were completed in 2021. Distanced Proximity by architect Wolfgang Becksteiner consists of two parallel concrete walls, each 2.2 meters high and 3.4 meters long (Illustration III.9). Becksteiner stressed that the walls are open to two sides, thus giving hope for the time after the crisis (“Distanzierte Nähe” 2021). The aesthetic is reminiscent of the Berlin Holocaust Memorial. The second memorial, Untitled, commissioned as part of the same memorial competition, is the brainchild of artist Werner Reiterer. A globe made of iron and heavy concrete weighing 17,000 kilos was dedicated in the city park of Leibnitz, Reiterer’s hometown, on November 18, 2021 (Schwaiger 2021). While the sphere’s placement in the public park symbolizes the sudden appearance of the novel coronavirus and also the swift process by which it enters the human cell, the planned gradual sinking into the ground for 120 to 130 years reveals the memorial’s message: we will forget COVID-19 as we forgot the Spanish flu. Reiterer’s COVID-19 memorial is an anti-memorial, modeled, for example, after Jochen Gerz and Esther Shalev-Gerz’s disappearing Monument against Fascism in Hamburg-Harburg, Germany (Mahnmal gegen Faschismus). The antifascist memorial that was unveiled in 1986 vanished in 1993. The original 40-foot aluminum pillar invited people to write on its soft lead shell with a steel stylus as a self-commitment to be and stay attentive in the face of (re)emerging fascism, war, and human rights violations. Whenever a section of the pillar was covered, it was lowered into the ground until it disappeared. The third COVID-19 memorial, designed by Michael Schuster, emerged from the same 2021 competition of the Kronen Zeitung, a tabloid newspaper; it was unveiled on June 15, 2023, in a park at the foot of Graz’s Schlossberg (Illustration III.9). The brittle metal letters and numbers of rust-colored Corten steel, which together form the word ‘COVID19,’ can be interpreted as symbolizing fragility, vulnerability, and inequality but also resilience and are maximally open to interpretation (“Grazer Corona-Denkmal” 2023).

Illustration III.9: Wolfgang Becksteiner, Distanzierte Nähe / Distanced Proximity, Graz (left), and Michael Schuster, COVID192020, Graz (right)



Photos by Marie Dücker, November 19, 2023.

Water and pools are among the most common features of memorials, with the Reflecting Pool, the Constitution Gardens Pond, and the Tidal Basin in Washington, D.C., serving as prominent examples in a US context. The significance of water is also notably evident in the design of the National 9/11 Memorial, where two cascading, sunken pools and surrounding parapets intricately encompass the footprints of the Twin Towers. It is therefore not surprising that many permanent COVID-19 memorials use water in their designs.

Conceptualized by the Latin American architecture firm Gómez Platero, the planned World Memorial to the Pandemic consists of a large walkable disk to be installed on water off the rocky Uruguay coast near Montevideo. The Texas-based Miró Rivera Architects have proposed Yarauvi, a gigantic bowl-shaped structure in the middle of the Dead Sea in Jordan as an inter-denominational burial site (“Yarauvi” n.d.). The idea was originally conceived by Juan Miró around 2013 and gained new urgency when Michael Sorkin, Miró’s former professor at Yale School of Architecture, passed away from COVID-19 in March 2020. As of June 2024, the two memorials are still in the planning stages, which might be attributed to the fact that they are massive in size, and building them over already existing bodies of water requires feasibility studies (Álvarez 2020).

Another water-related COVID-19 memorial project is underway in Slovakia, envisioned by Czech architect Radek Talaš. Along the shores of Lake Ružinov in Bratislava, seven footbridges are set to be installed, designed to produce artificial waves as individuals walk on them. Furthermore, these wave-generating footbridges may also serve as part of choreographed displays during commemorative events and musical performances (Hauser 2022).

Conclusion

Emotions of grief, gratitude, and rage are reflected in many COVID-19 memorials, mirroring familiar patterns of memorialization in the form of (1) impromptu collective shrines, (2) temporary installations that collocate earlier shrines, and (3) permanent memorials or carefully planned temporary installations. Situated in the first category, biographical reconstructions draw attention to the individual victims, like the *New York Times* front page full of names and the many digital memorial walls. These collective memorial shrines provide people with a communal space to seek closure and support, express their sorrow, pay respects, and commemorate the lives lost, but they also have a political function in drawing attention to tragic deaths and lives that ended too soon. They also provide a space for visitors to channel and share their fears (the people who came to the Vienna Plague Column or the Plague memorial in the Goa cemetery).

In the second category, the temporary display of flags, lights, and empty chairs highlights the massive scale of loss. The fact that Black, Indigenous, and People of color were disproportionately affected (Tai et al. 2021) becomes apparent only in some projects (e.g., Robin Bell's nightly projection in Washington, D.C., and the Detroit funeral procession posters).

With regard to the third category, the global experience of crisis has so far mainly been translated into memorials with by now predictable elements, such as walls with names and eternal flames. Particularly, walls have lent themselves to recreate the iconic image or experience of distancing and separation (e.g., Distanced Proximity).¹⁶

While permanent memorials are often made of sturdy materials and maintained by governments or well-established social groups,¹⁷ digital memorials seemingly exist in ephemerality,¹⁸ easily lost in a sea of data or lack of interest over time. Yet, the latter's emergence and maintenance need to be evaluated in the broader context of globalized and interconnected media technologies, which have played a crucial role

16 To determine whether this pattern will continue, it will be crucial to continue to document and analyze emerging permanent memorials. Exploring the identities, motivations, challenges, and support networks of those involved in memorial initiatives will add a crucial dimension to our understanding of these memorials.

17 Madrid's two memorials, Brazil's Infinity Memorial in Rio de Janeiro, the Italian memorials in Codogno, Casalpusterlengo, and Bergamo, the Memorial Garden and the National Covid Memorial Wall in London, the Forever Strongest memorial in New York, and three memorials in Graz, Austria.

18 St Paul's Cathedral's "Remember Me," Zakat Foundation of America's COVID-19 Memorial Wall, the *New York Times* collection of 100,000 Lives Lost, memorial walls in St. Louis and Chicago and many other cities.

in shaping collective memory and perception of the pandemic since its global impact began in early 2020.

Over the last 50 years, collective shrines have shaped the construction of memory by allowing for a plurality of voices, a practice that has now migrated to digital spaces. Like commons-based peer-produced media, memory formation is handed over to the digital collective and may resist the control of memory by influential groups and powerful institutions. Depending on the cost, needs of the respective community, and determination of the memorial's initiators and maintainers, digital memorials—like permanent memorials—could exist for long periods. Permanence depends on the space the memorial exists in, whether or not it is expensive to maintain, and if there is a support group to provide long-term maintenance. In this sense, digital memorial shrines and permanent brick-and-stone memorials are not far from each other in terms of the needs they satisfy and the functions they serve. Their relative similarity also confirms the earlier assumption that although a trajectory of commemoration can be witnessed in COVID-19 memorialization, it is less in a successive but rather simultaneous mode where temporality and permanence do not rule out each other.

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Corona Fictions Anthologies

On the Compilation of Hispanophone and Francophone Corona Fictions During the First Lockdown

Yvonne Völkl

After the World Health Organization (WHO) characterized COVID-19 a worldwide pandemic on March 11, 2020 (Adhanom Ghebreyesus 2020), stay-at-home policies to mitigate the spread of the then-novel coronavirus and protect health care systems were imposed in many countries of the world for two months (from mid-March to mid-May 2020) on average.¹ This first (of several) COVID-19-induced lockdown became “a unifying experience for billions of people across the world” in the following weeks (“Word of the Year” 2021; “Covid-19” 2020).² During this new collective experience of staying “at home unless [there was the] need to go out for certain reasons, such as going to work, buying food, or taking exercise” (“Lockdown” 2022), two tendencies could be observed in the realm of cultural reception and production.

First, already at the beginning of this lockdown, a rapid increase in the reception of fictional narratives relating to communicable diseases was measured: on the video-streaming platform Netflix, for example, movies such as *Outbreak* (1995) were among the most-watched movies in March 2020 (Clark 2020), while *Contagion* (2011) was “spreading like [...] a *virus*” despite not being available on any of the major streaming services in the United States (Mann 2020). Next to these cinematic pandemic fictions (Research Group Pandemic Fictions 2020, 323–24), a new interest emerged in existing written pandemic fictions, such as *Il Decamerone* (1349–53) by

1 More than 100 governments imposed what were referred to as lockdown measures by the end of the same month in order to interrupt infection chains and subsequently relieve healthcare systems (e.g., Dunford et al. 2020; Ritchie et al. 2020). The measures implemented ranged from school closures and travel restrictions to the complete closure of entire sectors of the economy and also included contact restrictions and curfews for specific population groups (“Lockdown” 2022).

2 The term ‘lockdown’ and its Spanish equivalent ‘confinamiento’ were even elected Word of the Year 2020 at the end of the year (“Confinamiento” 2020; “Covid-19” 2020; “Word of the Year 2020” 2021).

Giovanni Boccaccio and *La peste* (1947) by Albert Camus, which were broadcast for collective consumption on the radio and through online readings.³

Second, many authors and filmmakers—professionals and amateurs alike—began producing their (written and audiovisual) fictional narratives relating to the COVID-19 pandemic during this period, drawing on everyday media and political discourse as well as on previous pandemic fictions. These cultural productions—subsumed under the generic term of ‘Corona Fictions’ (Research Group Pandemic Fictions 2020, 322–23)—approach and negotiate the COVID-19 pandemic from a variety of perspectives and use different media formats and genres for this purpose. The Corona Fictions produced during and in the wake of the first lockdown show an inclination toward short and collaborative formats and genres, such as a turn to music videos (Obermayr and Hobisch 2023), to series (on the web and on television; see Mateos Pérez 2021), and to the publication of (prose fiction and poetry) anthologies.⁴ These tendencies in the early audiovisual and written productions of Corona Fictions can be attributed to the demands of our social media-driven world, which prefers quick media (Friedman and Schultermandl 2016, 4) formats and genres, on the one hand, and to the sense of community that is created and strengthened by working together (although mostly remotely) on a common music, film, or book project, on the other (Hobisch et al. 2022, 194–98; Völkl and Obermayr 2023).

Based on these observations, this article examines the following research questions:

- a) What functions do Corona Fictions anthologies fulfill according to their editors?
- b) What are the common characteristics of Corona Fictions anthologies?
- c) What general lessons beyond their interpretation as aesthetic artefacts do these anthologies and their content teach us?

In order to answer these questions and to illustrate transnational and translingual tendencies in the making of these Corona Fictions anthologies, exemplary data from French- and Spanish-speaking cultural areas will be examined. A sample of four francophone and four hispanophone anthologies including contributions from the Global North (including Canada, France, Spain, and the United States) and the Global South (including Argentina, Colombia, Mexico, Peru, and Uruguay) was chosen for this study. These Corona Fictions anthologies were all designed (and some even already published) in the spring of 2020 during the first COVID-19-

3 For example, during the first lockdown, participatory public lectures of *Il Decamerone* and *La peste* were organized on social media platforms (e.g., #Décameron-19, #lirelapeste) as well as on the radio (e.g., Austrian radio station fm4).

4 Corona Fictions in Romance languages are collected in an open-access bibliographic database (Hobisch et al. 2021–).

induced lockdown. In total, the corpus comprises 152 texts in prose, poetry, and drama, some of which are accompanied by images: 61 in French and 91 in Spanish.

After an initial introduction addressing the general forms and functions of anthologies, the focus will be on the self-description of the Corona Fictions anthologies by their respective editor(s). Then, the chapter will turn to their characteristics in view of their topics, genres, and narrative situations gathered through qualitative and quantitative text analysis, which reveals that the anthologies often give voice to groups largely unheard in the initial phase of the crisis, such as children, mothers, migrants, and senior citizens. Finally, against the background of the results, the chapter discusses the added value of the anthologies emanating from the first COVID-19-induced lockdown for other disciplines.

Forms and Functions of Anthologies

Anthologies commonly regroup a collection of (written) texts or text passages by different authors, who a specific community (literary, philosophical, scientific, etc.) deems to have had a considerable importance within a specific epoch, for a certain genre, or on a particular topic. The history of anthologies, however, has not been studied in great detail. In the *Handbuch Kanon und Wertung: Theorien, Instanzen, Geschichte* (2013; 'Handbook Canon and Assessment: Theories, Instances, History'), however, Stefanie Lethbridge describes literary anthologies as collections of texts of at least three authors on a specific topic, genre, or epoch. Their characteristic features are (a) the retrospective selection of texts from a larger text pool and (b) their subsequent composition as a collection. (c) Anthologies are cheap and usually (d) compact print products that first make texts accessible and then (e) become legitimate within institutions, such as schools and universities. Their primary and best-known purpose is thus to function as instruments of canonization; anthologies are sometimes even regarded as equivalent to the canon (Lethbridge 2013, 179–82).

As Gabriele Rippl and Julia Straub point out in their contribution to the same handbook, the choice concerning which literary work a culture, society, or community canonizes depends to a large extent on what the group in question considers to be of high value over a prolonged period of time. These values are generally based on the opposition pair 'center vs. margin,' which, in turn, is determined by social parameters (e.g., political constellations and gender politics) and literary factors (e.g., aesthetic programs and genre traditions). Accordingly, the values and norms of a culture, society, or community may shift over time, and canons are never rigid and permanent selections of texts that stand the test of time. Rather, canons are constantly changing, as they are subject to historical and cultural processes. Thus, a canon always reflects the norms and values of a powerful group and may, in turn, be used as an instrument of power, since it serves as a standard or filter for the admis-

sion or exclusion of new texts (Rippl and Straub 2013, 112). Concerning the canonization of literary texts, the processes of inclusion and exclusion were long ignored. Only in the early 1970s, revisionist debates about literary canons emerged, increasingly questioning the mechanisms of exclusion, in particular with respect to works by women and ethnic minority writers (Rippl and Straub 2013, 110).⁵

Similar to the process of canonization, the process of anthologization is influenced by the values of the actors involved in this process. The Greek origins of the term—consisting of ‘anthos’ (‘flower’) and ‘legein’ (‘to collect’)—indicate the distinctiveness of the literary ‘flowers’ collected within them. Every anthology assesses and selects its content in full awareness of the omission of other texts. The selection criteria depend on the focus the editors set for each anthology: they can be of a thematic or formal-aesthetic nature, can give a historical insight or overview, and/or concentrate on a specific genre. Due to practical reasons, anthologies usually collect short literary forms.

Corona Fictions Anthologies

In countries implementing a stay-at-home policy in the spring of 2020, the collective lockdown came along with the closure of cultural sites, such as museums, theaters, and cinemas, and the cancellation (or postponement) of performances, such as concerts, exhibitions, and book tours, leaving artists of different fields without work and/or income for a considerable period of time. In the midst of this unprecedented cultural standstill, it seems only natural that artistic communities as well as ordinary citizens sought for other modes of expression to capture, and cope with, this unprecedented and purportedly unique event.⁶

In the literary realm, next to countless ‘lockdown diaries’ (Fleury and Gateau 2022; Obergöcker 2020; Rosier 2020; Völkl forthcoming), several dozens of poetry and prose anthologies were conceptualized.⁷ Arranged under the theme of COVID-19, these collections of short texts were produced either as soft-cover publications, as pdf books, or on websites within weeks and months of the first lockdown. Such a rapid anthologization may come as a surprise, since the composition of an anthology—as indicated above—usually is the work of retrospective selection and collection.

5 See, for example, Lerner (1986 and 1993) on why female thinkers have been marginalized and erased for centuries in Western patriarchal societies.

6 For an overview of the impact on different art sectors during the COVID-19 pandemic, their thriving at all times of crises, and the possible future of the arts and artists, see Daniel (2021).

7 Please search for ‘anthology’ in our project’s database for the latest number of anthologies (Hobisch et al. 2021–).

The prospective approach in times of the COVID-19 crisis can be explained by the almost simultaneous and worldwide lockdown and the unprecedented nature of its implementation. This new and shared collective experience instigated the editors of the Corona Fictions anthologies to either launch their book project with a public call for contributions or with a request to colleagues and fellow citizens of various backgrounds to contribute to their anthologies. In fact, each editor/editorial team followed at least one of three self-proclaimed functions when conceptualizing their anthology: (1) they aimed at *documenting and preserving* this exceptional collective experience, which was perceived as a 'historic moment' in Western history as early as March 2020 (Redacción Infobae 2020); and/or (2) they wanted to *support and empower* writers and readers alike in their ways of coping with this unprecedented experience; and/or (3) they wanted to *inspire* new and concrete ideas for a post-pandemic world, thereby *preparing* for possible futures. The respective paratexts (Genette 1997) mention the three functional categories either in their epitexts (e.g., in the call for contributions, on a website, or in an interview about the publication) or in their peritexts (e.g., in the preface or in the title, as in the case of *Imaginer l'après* [Collectif 2020], meaning 'imagining what comes after' the lockdown or pandemic, which were largely perceived as coinciding at that point in time).

Document and Preserve

The anthology *Bitácora del virus: Palabras del reposo* (Virus Logbook: Words of Rest) was edited and published by Virginia Giacosa and Lila Siegrist in Rosario, Argentina, in mid-April 2020. This Spanish-language anthology comprising thirty texts arose from the idea that this collectively experienced crisis constitutes a historical moment that shall not be forgotten: "*Bitácora del virus* arises from the necessity to start thinking about this historic moment we are living" (Redacción Infobae 2020).⁸ In addition to writers, journalists, and poets, the Argentinian editors also invited health professionals, artists, teachers, and academics to contribute to this collection. Their aim was to give room to their ideas and emotions as well as to disseminate their sharp, intimate, lively, and vibrant thoughts in the lockdown-caused "time of rest or quietness." Hence, this publication, metaphorically designated as "logbook," in its title keeps track of the particular challenges at the beginning of the pandemic crisis, through which the whole world navigated almost simultaneously. Instead of providing any concrete answers to how to manage the crisis, the editors rather left room for questions, such as how the role of the state and public policies impact on the private sphere; how identity is reconfigured during this exceptional experience; or how each human subject inhabiting planet Earth is affected by this very particular threat (Redacción Infobae 2020).

8 All translations of texts in languages other than English are by the author of this chapter.

Among the first published Corona Fictions anthologies are the 23 texts of the online collection *Récits infectés* (Infected Stories) launched by the Montreal-based editorial team Léonore Brassard, Benjamin Gagnon Chainey, and Catherine Mavrikakis.⁹ With this collection, the editors sought to preserve the “pandemic spontaneity” in particular, as the writings were composed in barely three weeks and published in early June 2020. They invited renowned authors, such as Régine Robin, Marie-Célie Agnant, and Ouanessa Younsi, to narrate their perception of the COVID-19 pandemic and its impact on them. Their texts render the tragic, comic, utopian, and disastrous dimensions of the crisis not by rationalizing them but rather by emulating its affective power on the individual and the collective in language. Their stories “make us feel the way ‘crises’ act on us; they blur the boundaries between human bodies, the bodies of texts, and social bodies” (Brassard et al. 2020; Sarrazin 2020).

Confines: antología en tiempo de riesgo (Limits: Anthology in Times of Risk) was published in Argentina in August 2020 by Carlos Aprea and Roberto Pasquali and comprises 28 poems written by renowned authors. The focus on poetry is justified in the preface by emphasizing the notion that language shapes our reality and that things only begin to exist through the act of naming them. Poetry is considered an extraordinary form of expression, since it condenses language to an infinite point in order to name things as precisely as possible (Aprea and Pasquali 2020, 8–9). While the publication of newly-written and unpublished texts is a common denominator for all Corona Fictions anthologies, this one stands out against the others mentioned in this chapter, as all contributors belong to the ‘risk group’ of senior citizens. Additionally, Aprea and Pasquali included not only Argentinian authors but also authors from countries such as Italy, Spain, Uruguay, France, the Netherlands, Peru, and Cuba. They chose these selection criteria in order to represent the pandemic crisis from their specific and diverse perspectives: “The request was that poems and texts should be written recently, that those invited should be very close to or within that age group now called ‘at-risk population.’ The aim was to gather, within the limits of time and networks, voices from different geographies and experiences” (Aprea and Pasquali 2020, 9).

Support and Empower

The anthology *Delirios de cuarentena: Ficciones de 20 autores en la pandemia del 2020* (Quarantine Delusions: Fictions of 20 Authors in the 2020 Pandemic) regrouped 23 texts and was published in May 2020 by the Spanish editor Carolina Corvillo.

9 This anthology was published online (<https://recitsinfectes.com/>) shortly after the end of the first Canadian lockdown. It initially comprised 24 texts, of which the poem by Marie-Pier Daveluy was removed some time after the initial publication, but it may still be accessed through the Internet Archive's Wayback Machine.

In her preface, she explains the intentions behind the collection: on the one hand, reflecting the aims of Aprea and Pasquali above, the short fictional stories tried to “name” the overwhelming strangeness accompanying this time of collective lockdown; on the other hand, they also sought to “tame” this experience: “Short stories to name and tame the strange, that which overwhelms us, from the point of view of fiction and entertainment” (Corvillo 2020, 7). In view of this second aim, Corvillo understands the act of storytelling as a cathartic process: denominating the things around us and also the feelings within us is an effective way to recognize ourselves as helpless in the face of destiny, but also a way of taking control of our personal destinies at the same time (2020, 3).

This *supporting and empowering* function is also clearly stated in the anthology *La vida en tiempos del Coronavirus* (Life in Times of the Coronavirus), which originated from a writing contest launched by Guadalupe Avalos and the Norwegian publishing house Nordlys Publicaciones, where it was also published. As explained in the preface, the contest was started because many people used writing as a means of calming themselves, of creating, healing, or ordering their thoughts: “The period of confinement makes many people use the written medium to unburden themselves, to create, to heal, to put their thoughts in order” (Avalos 2020, 11). In response to the call, the jury received 163 texts, of which ten by writers from Spain, Mexico, Italy, Colombia, the United States, France, and Norway were included in the collection released in August 2020 (Avalos 2020, 11–13).

Inspire and Prepare

Although somewhat overlapping with the previous aims, the last three anthologies rather fall into the third functional category of *inspiration and preparation*, as their stories engage with future and/or futuristic versions of the world. Such a future-oriented perspective can be deduced from the subtitle of the French-Canadian collection *Résidence: Imaginer l'après* (Residency: Imagining the After-World). Its seven texts originated in the context of an artist “residency at home” (Collectif 2020, 3) during the first lockdown in the spring of 2020 and were published by an editorial collective. The idea behind their anthological endeavor was to engage in an exercise of projection (Collectif 2020, 45). The instruction for the texts’ creation was to produce pieces of prose or poetry inspired by the idea of that which comes “after” the lockdown or the pandemic.¹⁰

Similarly to *Imaginer l'après*, the future-oriented idea for the anthology *Les femmes écrivent le monde de demain* (Women Writing the World of Tomorrow) emerged directly

10 The texts are accompanied by videos and sound works available at <https://www.prisedeparole.ca/residence-de-creation-imaginer-lapres/>.

from the lockdown experience. During the first lockdown, the Collectif Sororistas—a group of 150 women from France and other francophone countries—perceived a rapid disappearance of women from the public sphere: “Very quickly, women seemed to disappear from the screens and the front pages of newspapers that talked about the world of tomorrow” (2020, 4). With this in mind, they launched a competition aimed at collecting narratives drawing an essentially feminist vision of the future (as indicated by the collection’s title). The instruction for the contributors was to project themselves ten years into the future, to December 31, 2030, and to imagine in a “free narrative” how both personal and collective aspects will have developed since the lockdown of 2020. From the 589 submissions, the jury chose twenty texts for the anthology, which came out in December 2020.¹¹ These stories “speak of our anger and our desires, of nature scorned, of the death that threatens, of the children that we forget, of the battles we wage here and there, for another world, a world of equality, of creation, a world less bureaucratic and more daring” (Collectif Sororistas 2020, 6).

The last anthology in this category is a Canadian government report titled *La COVID-19 et la santé et le bien-être des Autochtones: nos histoires sont notre atout et témoignent de notre résilience* (Richmond et al. 2020a).¹² The report was published in December 2020 and consists of ten autobiographical stories written by “Indigenous scholars, practitioners and learners” (Richmond et al. 2020b, 6). Although a government report, it qualifies as a Corona Fictions anthology because all of its autobiographies are structured teleologically and told from an already existing endpoint, therefore narrating (parts of) a life with a specific purpose (see Brockmeier 2001). The story-based approach, which according to the editors provides “a means of humanizing COVID-19 to the broader research and policy community” (Richmond et al. 2020b, 6, 46), facilitates insights into how the COVID-19 crisis impacted the health and well-being of Indigenous communities. Due to their relational and holistic understanding of life, the stories included are regrouped around the theme of relationships—with the self, the family, and the community, but also with the land, with balance, and with self-determination. Indisputably, this volume represents a combination of all three functions of anthologies. First, it documents existing inequalities in Indigenous communities, which have been magnified by the pandemic crisis, while at the same time illustrating the possibilities of personal and community resilience. Second, because “there is little community-specific or nation-based epidemiologic data available to

11 The winning stories are also available as spoken-word podcasts at <https://www.sororistas.fr/concours-2020/le-podcast-2020/>.

12 As an official government report published by the Royal Canadian Society, the whole collection is also available in English under the title *COVID-19 and Indigenous Health and Wellness: Our Strength is in Our Stories* (Richmond et al. 2020b).

Indigenous leaders to inform their community responses to the pandemic” (Richmond et al. 2020b, 10), it shows how “Indigenous self-determination, leadership and place-based knowledge have successfully protected Indigenous communities in Canada during the COVID-19 pandemic” (Richmond et al. 2020b, 7). Third, the report aims at extending “Indigenous data sovereignty” (Richmond et al. 2020b, 45) not only to better support community members in the future but also to share their insights on the resilience of the Indigenous peoples beyond their community borders.

Predominant Topics, Genres, and Narrative Situations

In order to obtain a meaningful overview of the characteristics of the collections, I conducted a quantitative survey of the Corona Fictions anthologies. In a first step, a close reading of all 152 anthologized texts was essential. In the course of this text-oriented approach, I created a spreadsheet and filled it with author-specific and text-specific information. While the author-specific information included the name and country of origin of the authors, the text-centered information, generated through classic narratological text analysis on the basis of Gérard Genette (1980), consisted of thematic, formal, and linguistic details of each text: text title, narrative situation, general literary genre (epic, drama, poetry), and subgenre (e.g., blog, dialogue, utopia), main subject and other subjects, spatio-temporal setting and structure as well as information on the writing style and specific stylistic devices (especially in poetry). Moreover, texts were scrutinized for explicit references to the COVID-19 pandemic and the function of the virus (e.g., expository, historiographical, moral, dramatic function according to Grimm [1965]).¹³

After this initial process, the extracted data was revised and rectified where necessary (e.g., due to typographical errors and mixing languages). The data of the closed-ended categories concerning explicit references to the pandemic, general literary genre, and narrative situation were then statistically evaluated for this article with a basic frequency analysis (see Jannidis 2010), and then cross-evaluated and cross-interpreted with the entries of the open-ended categories. For a better overview, the following three subchapters examine topics, genres, and narrative situations, revealing that the anthologies regularly put an emphasis on the inclusion of texts by and about group-specific voices that remained largely unheard in the political and media discourse during and surrounding the initial phase of the pandemic.

13 While only a few categories, such as narrative situation, general literary genre, and explicit reference to the pandemic, permitted closed-ended answers from a given list of answer options, most categories required or allowed for open-ended answers.

Topics

The first question that arises when examining Corona Fictions anthologies is whether all of their texts really do refer to the COVID-19 pandemic. Among the 152 anthologized texts studied, 30 % (46 texts) do not explicitly allude to the outbreak of the pandemic in spring 2020, whereas 70 % (106 texts) mention it explicitly with terms such as ‘coronavirus,’ ‘pandemic,’ ‘COVID-19,’ and/or ‘lockdown.’

Considering the texts without overt pandemic references, a look at the subject categories reveals that they are concerned with reflections on personal feelings (e.g., loneliness and fears), the concepts of time and space, as well as social and ecological values regarding the notion of freedom or living in harmony with nature. While some of these texts’ topics may point the readers to the COVID-19 pandemic, their inclusion in a Corona Fictions anthology brings this specific connection into the foreground. Thus, it will also be clear in the future under which circumstances these texts were produced.

Further insights into the prevalent topics addressed in the Corona Fictions anthologies were gained through a word frequency analysis of the text titles. This analysis was carried out independently for the 61 French and 89 Spanish titles and supports the large and explicit treatment of the pandemic within the anthologies.¹⁴ The most frequent title words are visualized in the respective tag clouds (Illustration IV.1).¹⁵ The frequency and thus importance of each tag (i.e., title word) is represented by the font size—the larger the font, the more frequent its occurrence (while the colors do not bear any specific meaning).

Next to terms directly connected to the pandemic such as ‘covid,’ ‘virus,’ and ‘pandemic’ (Fr. ‘pandémie’; Span. ‘pandemia’), there are those terms referring to the salient topic of ‘life’ (Span. ‘vida’) ‘during’ (Fr. ‘pendant’) the ‘period’ (Fr. ‘période’) or ‘time’ (Span. ‘tiempo’) of the COVID-19-induced ‘lockdown’ (Span. ‘cuarentena’). Although the English term ‘lockdown’ usually translates to ‘confinamiento’ in Spanish, the term ‘cuarentena’—initially referring to a preventive forty-days’ quarantine—has been widely used synonymously in Latin American countries to designate the lockdown situation (see Pineda 2021). One can also distinguish terms referring to specific ‘groups’ (Fr. ‘communauté’) affected by the stay-at-home policies, such as ‘women’ (Fr. ‘femmes’; Span. ‘mujer’) and ‘Indigenous peoples’ (Fr. ‘autochtones’). Additionally, from the tag cloud of the anthologized text titles, a preoccupation with certain subjects emerges, such as ‘death’ (Span. ‘muerte’), ‘hospital(ization)’ (Span. ‘hospital’), and the feelings of being ‘caged’ (Span. ‘jaula’) or ‘ashamed’ (Fr. ‘honte’).

14 Two of the hispanophone texts are untitled.

15 In both languages, recurrent words were eliminated through a stopword list (Span.: a, de, del, el, en, la, los, o, que, un, una, y; Fr.: 19, à, d’, dans, de, des, du, elle, en, et, il, l’, la, le, les, ou, pour, sur, un, une, y).

Illustration IV.1: Tag clouds of francophone and hispanophone titles



Created by Yvonne Völkl, using Voyant Tools, dev. Stéfan Sinclair and Geoffrey Rockwell, 2003–2022.

The tag clouds also show that the corpus introduces some topics which in pandemic fictions as well as in COVID-19-related media and political discourse remained rather marginal, if not unheard. The words ‘autochtones,’ ‘femmes,’ and ‘mujer’ point at the inclusion of topics and voices of women and ethnic minorities.¹⁶ The visibility of these issues can, of course, be attributed to the fact that Corona Fictions anthologies explicitly dedicated to these groups were included in the (rather small) data sample. For example, in *La COVID-19 et la santé et le bien-être des Autochtones*, the autobiographical stories were written by Indigenous researchers (from PhD candidates to professors) from universities across Canada, addressing their personal and collective experiences in their respective communities during the first few months of the pandemic. Further, *Les femmes écrivent le monde de demain* was composed by women writers only, who, in their stories, imagine what will have happened in France and the world by the end of 2030. Most of their texts stage female characters of different age cohorts and of different social milieus. Stories like “La nouv-elle” (The New-She) (Galland 2020) and “Le printemps des femmes” (The Female Spring in reference to the Arab Spring of the early 2010s) (Girsch 2020) depict the biographies of two ordinary French women, who have become the first female state presidents by 2030. In “L’altermondialisme des femmes insomniaques” (The Alterglobalism of Sleepless Women) (Gury 2020), a female scientist and professor of sociology explains the key sociological events ten years after the COVID-19 outbreak, while in “Eldorado à quatre chiffres” (Four-Digit Eldorado) (Wenker

16 In Corona Fictions, women appear as narrators and protagonists alike, whereas in previous pandemic fictions, women seem to be more passive minor characters or entirely excluded (see Hobisch et al. 2022, 204).

2020), a Muslim migrant recounts her trajectory from her country of origin to a Greek refugee camp, where she has been stuck since the pandemic outbreak and which represents the opposite of the Eldorado she had hoped for.

Genres

The topics of the anthologized texts are expressed in one of the three main literary genres of prose fiction, poetry, and drama. The majority of the French and Spanish texts pertain to the literary genre of prose fiction; between a third in the hispanophone and a fifth in the francophone corpus to the genre of poetry; and only a few percent to that of drama. The high number of Spanish poetry texts is connected to the fact that the poetry collection *Confinés: antología en tiempo de riesgo* is one of the four hispanophone anthologies analyzed.

Literary scholars commonly also group texts into subgenres. In the Corona Fictions anthologies, these subgenres include anecdote, blog, dialogue/interview, diary, dystopia, utopia, email, interior monologue, speech, reflection, account, short story from everyday life, slam poetry, and rap. Among this wide range of subgenres, some (sub)genres even overlap, such as blog diary and narrative poetry. Notwithstanding, the most common subgenre (approx. 40 %) is the everyday story, depicting all possible kinds of topics enmeshed with daily (lockdown) life from the stance of a great variety of group-specific voices.

Recalling the previous subchapter, we have seen that whole anthologies give room to, for example, female and Indigenous views on the pre-pandemic, the pandemic, and the post-pandemic world. Other topics addressed and voices heard are those pertaining to elderly people and children as well as intersectional perspectives; even animals are given a voice at times. As was noted in the subchapter analyzing each anthology's self-description, *Confinés: antología en tiempo de riesgo* brings together poems composed by female and male authors above the age of sixty. Some of their contributions distinctly adopt the perspective of an older narrative voice or retired narrator, as in the case of "Pulmón" (Lung) by Gustavo Wojciechowski (2020). The stanzas of this narrative poem follow the diary form and are segmented by dates. Between April 28 and May 1, 2020, an elderly I relates his short check-up stay in the hospital of Buenos Aires because of respiratory problems. Other anthology texts with senior voices include, for example, Régine Robin's (2020) autobiographical reflection on how the French lockdown measures (e.g., completing forms to leave the house), the rhetoric used by French politicians and media (e.g., war rhetoric, infantilization of citizens, and censorship), and people's reactions to them (e.g., panic buying and a climate of denunciation) reminded her of her Jewish childhood in World War II Paris. These experiences during the first lockdown of 2020 triggered Robin's wartime trauma described in her account, which is indicated by its title: "La réactivation d'un traumatisme de guerre: Paris confiné" (Reactivation

of a Wartime Trauma: Paris Confined). In the short story “El daño de la pena” (The Damage of Sorrow) by Nicanor García Ordiz (2020), the focus lies on the perspective of an old miner from the Spanish coal mining region of León, who, delirious from coronavirus disease, ‘relives’ his past, evoking pain, poverty, and starvation, and resorting to alcoholism as a means of drowning his sorrows and regrets.

Children’s voices are put in the foreground, for example, in the dystopian story “Le syndrome de noix de coco” (The Coconut Syndrome) (Husetowski 2020). In this dialogue, a mother tells her young son about the deconstruction of prevalent gender stereotypes by an adverse drug reaction in all COVID-19-vaccinated men, which caused men to grow breasts, leaving many unable to work, while women had to take over more and more male-dominated areas of the labor market. Another example is the short story “La visite” (The Visit) (Bender 2020), which represents everyday life during the pandemic from a little girl’s point of view. During the lockdown, she dreams of seeing and hugging her grandparents again, only to discover on the day of their reunion that they have become so afraid of touch that the little girl stays “still and undecided. The distance that remains to be covered—that remains for us all to cover—has suddenly become so great again” (Bender 2020, 23).

Finally, the inclusion of anthropomorphic animal voices is notable. In the short story “La rumba del encierro” (Rumba of the Lockdown) by Arlen Buchara (2020), for example, the cat Rumba stands in for her carer, who—for this anthology—should have written a text about the lockdown, which is alluded to in the title with the Spanish term for ‘prison.’ Like the rest of the world, the cat carer and author appears to have been overwhelmed by the confinement and has reached the end of her nerve. As Rumba notes in her narration of the daily occurrences: “For days, she has been walking around the house, walking on the walls, smoking in the sun, writing down ideas in Word or on paper, reading news, listening to podcasts, feeling anxiety, joy, guilt, crying over nothing, laughing out loud at the most stupid jokes. For days now, she has been sitting at the computer in front of the window trying to write this text” (Buchara 2020, 51). In stark contrast to the title of the story—‘rumba’ also stands for ‘celebration’ or ‘party’ in Latin America—the lockdown experience, especially the lack of human closeness and warmth, is everything other than a joyful interlude. In this context and not without reason, the story ends with a sensual dream of the cat carer, in which she is again hugging and kissing other people without being afraid.

Narrative Situation

The category of narrative situation distinguishes between a heterodiegetic and a homodiegetic narrator, with the former being located outside of the narrated world and the latter within it. The analysis of both (francophone and hispanophone) corpora revealed that approximately a quarter of all the texts feature a heterodiegetic narrator and three quarters a homodiegetic one.

The large number of homodiegetic narrators in Corona Fiction anthologies is not surprising, since they are composed of many narrative poems as well as autofictional texts such as diaries, interior monologues, and everyday stories, in which the homodiegetic narrator and the protagonist are identical (i.e., autodiegetic narrator).¹⁷

Most examples previously mentioned are told by homodiegetic narrators from a first-person perspective. There are, however, four francophone texts in which the homodiegetic narrator blends into the perspective of a collective 'we.' The two poems from *Imaginer l'après*, "nous fraierons cash" (We Mill Cash) by Éric Charlebois (2020) and "le corona-vers" (Covid-Verse/Covid-Worms) by Véronique Sylvain (2020) envision how we as a people will be living in the post-pandemic world. Sylvain, for example, plays with the triple sense of the French term 'vers' meaning 'verse,' 'toward,' and 'worms,' thereby referring to the probing concerns presented in column-like (or rather worm-like) verses about the if and how of a continued existence of humanity, as human beings increasingly seem to become one with technology. Also, the poem titled "Alliées" (Female Allies) by Lola Cros (2020) takes on a collective female perspective underlining the importance of female networks against patriarchal structures and positions in the struggle for an egalitarian future. The fourth text, "Quand il y aura moins" (When There Will be Less) by Clara Dupuis-Morency (2020), appropriates the perspective of a pair of siblings. In a simple and repetitive style, the children evoke the new hygienic rules during the lockdown and how they are disappointed by the promises of the adults repeating: "When the virus will be less widespread, we will be able to touch again, we will be able to grasp things from outside again." Instead of waiting for the viral spread to decrease, they start to act on their own initiative and literally escape this new strict world with the help of a friend.

As we have seen in the preceding chapters, the texts in the Corona Fictions anthologies are told from a great variety of narrators, situated on the spectra between young/old, female/male, indigenous/foreign, rich/poor, and human/animal. Yet another narrator of Corona Fictions is the homodiegetic narrator in disguise of the virus or the pandemic itself. The 'viral' or 'pandemic' autodiegetic narrator appears in "Les années aquarelle" (Watercolor Years) by Loredana Cabassu (2020) and "Yo soy pandemia" (I am a Pandemic) by Tomás Quintín Palma (2020). In "Les années aquarelle," an anthropomorphic coronavirus gives a speech to the public in the course of its Nobel Prize award ceremony in the year 2030. This speech reconstructs how the pandemic outbreak transformed the world for the better. It describes how, like a drop on a watercolor painting, the virus changed people's awareness concerning inequalities of gender (as well as race/ethnicity and class) and led to a new kind of

17 The slightly higher percentage of homodiegetic narrators in the Spanish anthologies can also be attributed to the greater number of poems, which typically deploy the conventional literary figure of the 'lyrical I' or lyrical subject.

cooperation, making the world a better and more egalitarian place for all to live in. In “Yo soy pandemia,” the coronavirus thematizes its loneliness in the course of the lockdown and how it plans on leaving the quarantine in order to ‘meet’ other people. The short narration ends with a slightly altered replica of the famous 1970s ballad “Soy rebelde” (I am a Rebel), a melancholic song about a solitary person searching for happiness, friendship, and love. Instead of ‘rebelde,’ though, one reads ‘Pandemia’: “I am Pandemia because the world has made me this way / because no one has ever treated me with love / because no one has ever wanted to hear me” (Quintín Palma 2020, 28).

Lessons from Corona Fictions Anthologies

As powerful world-making and self-making tools, narratives process knowledge about all areas of life and hold performative powers giving form, structure, and meaning to the contingent events of our lives (Nünning and Nünning 2010, 12). In short: “We tell stories to live” (Atay 2022, 202) and one can add ‘to feel,’ as “[n]arratives are [also] particularly conducive to affective worldmaking. Their use of plot development and character perspectives invites readers into the emotional storyworlds of novels, short stories, auto/biographical pieces, narrative poetry, newspaper articles, myths, and narrative films” (Schultermandl et al. 2022, 28).

Accordingly, the narrative texts within Corona Fictions anthologies also represent more than just literary compositions. Explicitly and implicitly, they deal with the COVID-19 pandemic from manifold perspectives and in diverse (sub)genres, yielding insights into the COVID-19 crisis on psychological, sociocultural, and historical levels. Moreover, the prospective approach to anthologization made the Corona Fictions anthologies active mediators and thereby (co-)creators of the pandemic discourse alongside everyday media and political discourse on the pandemic crisis (see Research Group Pandemic Fiction 2020, 324). In other words, the anthologies and their contents—written, selected, arranged, and compiled within the context of the COVID-19 pandemic—contribute to the (co-)creation, storage, and dissemination of the discourse on the pandemic, thereby contributing to the ‘crisis-making’ while influencing the collective perception of the crisis. In this sense, we can draw lessons from them beyond literary studies, for example, for the fields of psychology, sociology, history, and cultural memory studies, which will now be addressed. For this purpose, it proves instrumental to consider the anthologized texts separately as ‘products of narration or narrative acts’ and as ‘acts of narration.’

As the Corona Fictions project has demonstrated in another publication (Obermayr and Völkl 2022b), written and audiovisual Corona Fictions (as products of narrative acts) provide numerous illustrative examples of the lockdown effects on the human psyche, which are consistent with the results of psychological and sociologi-

cal studies after the first lockdown. These studies emphasize that restricting the vital human need for physical contact through distancing policies led to a sharp increase in levels of anxiety, depression, loneliness, and stress, on the one hand, and to a decline in mental health, resilience, and social cohesion, on the other. The particular value of the Corona Fiction anthologies is that they mediate the manifold pandemic experiences during the first lockdown from individual perspectives, stressing the many ills and few joys of this time. The abundance of homodiegetic and autodiegetic narrators is all the more significant bearing in mind the context of creation of the anthologies: originating within and with reference to the pandemic crisis, the texts staging a 'narrating I' or a 'narrating we' "place[] the subject in the center and, moreover, allow[] the reader a direct insight into the emotional and mental world of the protagonists" (Obermayr and Völkl 2022a, 138). The fact that many narratives (at least allegedly) draw on personal experience in the midst of the COVID-19 pandemic endows them with authenticity. Representing varying degrees of 'pandemic life,' including the depiction of a panoply of emotional responses to it (e.g., Slavoj Žižek's [2020, 49–52] five pandemic phases of denial, anger, bargaining, depression, and acceptance; see Obermayr and Völkl 2022a), the anthologized texts render a humanized perspective (see Richmond et al. 2020b, 6) of this unprecedented crisis. What is more, they facilitate an intersectional comprehension of the emotional responses through the depiction of experiences of individuals and communities marginalized on multiple levels. This "testimonial [...] function" (Obermayr and Völkl 2022b, 165) of the anthologized texts mostly aims at *documenting and preserving* the manifold experiences of the initial pandemic phase in spring 2020.

Nurturing the vital human need for contact, Corona Fictions as well as all other kinds of "stories can function as companions," as Ahmet Atay argues (2022, 202). He explores his personal use of narratives in pre-pandemic times, in particular of mediated narratives in times of less technological progress and of reduced human contact (mainly during holiday and summer seasons spent abroad). Thus, Atay comes to understand that in those isolated and lonely times he "depended on books, films, and television to survive" (2022, 203). He also deduces that this behavioral pattern of turning to stories prepared him well for the lockdown in the spring of 2020, as narratives "provide continuity and connection, but [...] are also a way to escape, to feel less isolated and lonely" (2022, 204). Atay also points out that television series such as soap operas can serve as a support to mark the days and keep them apart during the monotony of the lockdown routine. Moreover, the patterns, fashions, songs, and stories of old movies may provide comfort and stability. This functioning of "mediated narratives [and narratives in general] as companions, friends, lifelines, and ways to experience the world" (2022, 201), amounts to the endeavor of the anthologies' editors to *support and empower* their audiences with their collections. In the collected texts, readers can recognize themselves and become aware of other destinies at the same time. Since Corona Fictions anthologies were published in many parts

of the world (and also in languages other than French and Spanish), they, moreover, allow transnational and transcultural insights into individual and collective well-being and coping mechanisms during the initial phase of the pandemic. Perceiving alternative ways of dealing with the pandemic lockdown may thus not only function as *support and empowerment* but also as an *inspiration* for individual and collective coping strategies. This means that next to the ‘testimonial function,’ Corona Fictions—as products of narration—perform a “therapeutic function” (Obermayr and Völkl 2022b, 165) when entailing positive effects on those who consume them.

The ‘therapeutic function’ also operates on a second level. Shifting to the perspective of Corona Fictions as acts of narration, actively contributing to the anthologies may have also served as a coping strategy for the contributors. In other words, as “a way to [either] escape” (Atay 2022, 201) or to better manage the crisis situation, as is, for example, underlined in the preface of *La vida en tiempos del Coronavirus* (Avalos 2020, 11). This positive effect of narration on the human psyche has been confirmed by psychological research as a therapeutic tool to activate resilience (see Obermayr and Völkl 2022a, 131). However, not just the act of narration itself but also the (virtual) coming-together for a joint book project seems helpful in times of social and physical distancing measures. In order to thrive as human beings individually and collectively, we need both physical and social contact (see Obermayr and Völkl 2022b). Writing a text for an anthology, similarly to collectively writing a novel or producing TV and web series, draws attention to solidarity—to sticking together in times of crisis, to standing up for each other, and supporting each other, as most of the world’s governments urged their citizens to do in the wake of the pandemic crisis.

Since Corona Fictions anthologies are contemporary cultural products, they also bear a future-oriented ‘testimonial function’ or ‘commemorative function,’ since some of the anthologies purposely followed the aim of *documenting and preserving* the present. Accordingly, at some point in the future, they may become historically relevant as ‘memory containers’ (Assmann [1999] 2006, 114). With and through them, future generations may gain, for example, knowledge about the varying hygienic practices, norms, and values in the course of the COVID-19 pandemic and our individual affective reactions to them as well as about ensuing shifts in the social fabric. Or, as the US-American, Berlin-based novelist, essayist, and artist Andrea Scrima (2020) describes in the introductory chapter of the English Corona Fictions anthology *Writing the Virus*: “It’s our belief that these pieces of writing, composed in unusual times and under considerable pressure, will endure as documents of a particular period of history, testimonies to states of mind we will quite possibly have forgotten as we turn our attention to the new challenges facing us.”

In other words, Corona Fictions anthologies not only represent individual and collective testimonies of the present, but also prepare the cultural memory of the future. Hence, the Corona Fictions anthologies constitute an important cultural heritage from which future generations may learn about the perceptions, fears, and

hopes of today in conjunction with the COVID-19 pandemic crisis. However, which of the anthological texts or contributions will enter the literary canon—and win the constant battle for interpretative sovereignty, so to speak—is a question that only the future will answer. It largely depends on the interests of future generations and their authorities (e.g., their will to forget or to come to terms with the pandemic crisis), because “a canonical text [...] embodies the normative and formative values of a community, the ‘truth.’ These texts need to be heeded, followed, and translated into lived reality. This requires [...] interpretation” (Assmann [1992] 2005, 94–95).

Conclusion

The massive increase in the production and, subsequently, the compilation of narratives in different forms and genres in the wake of the COVID-19 outbreak was not a surprising phenomenon, considering that human beings use narratives to make sense of themselves, the events around them, and the world at large. In this respect, the Corona Fictions anthologies analyzed in this article demonstrate how the early mitigation measures—especially the first lockdown—influenced cultural production processes, sociocultural practices, as well as individual and collective well-being. While intended as means of *documentation and preservation*, *support and empowerment*, and/or *inspiration and preparation*, the anthologies also succeed in presenting the simultaneity of the pandemic effects in a multi-layered and comprehensive way. Their mostly short, episodic, and fragmentary texts illustrate the extent and aftermaths of the immediate pandemic mitigation measures in different areas of the world and in different parts of society. By introducing a diverse and partially intersectional range of group-specific voices that remained largely underrepresented in dominant pandemic crisis discourses, the Corona Fictions anthologies (co-)create, store, and disseminate living conditions, experiences, and hopes of children, mothers, migrants, and senior citizens at the beginning of the pandemic crisis. Thereby, these anthological texts also serve contemporary and future understandings of the COVID-19 crisis on psychological, sociocultural, and historical levels.

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Fiction as a Tool to Imagine the Pandemic

Insights from German, British, and US-American Print Media

Fabian Hempel and Sina Farzin

The emergence of SARS-CoV-2 and COVID-19 in 2020 affected almost the entire world. Accustomed to the modern imaginaries of globalization, blurring boundaries, and biomedical progress, people witnessed how the pandemic forced political and public health actors to make abrupt decisions in the face of uncertainty. Territorial borders were re-established, previously free movement between and within states was restricted, and almost all institutions, from workplaces to schools, faced ad-hoc implementations of ever-changing regulations. Societies responded to the pandemic's health and social consequences with various prevention, mitigation, and treatment efforts that strained their public health and science systems (Caduff 2020). COVID-19 also caused a knowledge crisis (Briand et al. 2021; Zarocostas 2020): making sense of and keeping up with what was happening became a daily prerogative for everyone. The novelty, scale, and speed of a truly global emergency presented a challenge in which established routines and coping mechanisms were often too slow and disrupted by the speed and dynamics of the unfolding events. While scientific research rapidly expanded expert understanding of the virus and the disease, the public and many political institutions struggled to make sense of an uncertain but not necessarily unprecedented situation.

The uncertainty of the pandemic and its knowledge crisis also shaped the public sphere. Discursive constructions of the pandemic featured in broadcast media, social media, and traditional print media (Hart et al. 2020; Mach et al. 2021). Media discourses on the pandemic constructed meaning in multiple ways, drew on established scientific knowledge, translated emerging research, and engaged with broader cultural knowledge about pandemics, emergencies, and crises. In addition to the processes at the intersection of science, the public sphere, and professional media, different modes of cultural and public engagement with COVID-19 proliferated across various media platforms. To understand the complex and multifaceted nature of the crisis, tools previously used by specialized experts (i.e., dashboards and preprints) became a new staple in public debates. However, to make sense of the pandemic, references to fictional narratives, characters, and elements also became popular features in media representations of the pandemic. For example, clas-

sic modern literature like Thomas Mann's *Buddenbrooks* (1901) and Albert Camus's *The Plague* (1947) was used to illustrate the development, transformation, and shortcomings of modern public health systems. Fictional icons of contemporary popular culture, such as Superman and Ian Malcolm, served as references for portraying virologists and epidemiologists in traditional and social media, highlighting their status as inadvertent public figures of controversy and admiration.

We argue that such engagements with fiction were distinct discursive practices within the toolkit of meaning-making employed during the pandemic. Our study of the reception of pandemic fiction traces how fiction was used to describe and explain aspects of the pandemic in the quality press during 2020 and 2021, the first two years of the pandemic. We compiled articles primarily from the feuilleton, arts and culture, and political sections of exemplary German, British, and US newspapers of record, such as *Süddeutsche Zeitung*, *The Guardian*, and *The New York Times*. From these sources, we constructed a purposive corpus of texts that dealt with pandemic-related topics, explicitly referenced fiction, and in which these references had thematic significance. Our analysis focuses on the thematic and communicative features to understand their use(s) as analytical blueprints of a society impacted by a viral disease. Before presenting our findings in the central part of the chapter, which reveals a pervasive presence of references to fiction and a considerable variety in their rhetorical and argumentative function in pandemic-related articles in the sampled publications, the following two sections outline conceptual and methodological considerations regarding the reception of fiction in the media.

Conceptual Considerations

Fictional imagination, that is, inventing, forming, and combining communicative elements, typically without a pragmatic function, is a fundamental aspect of all works of fiction, regardless of medium or genre. Assuming that fiction has “a second-order relation to the real world, via the mimetic logic of fictional representation” (Walsh 2007, 13), we understand works of fiction as communicative forms representing imaginary worlds, actors, events, processes, discourses, and other phenomena, “allowing them free dalliance with material of truth value because their ontological indifference renders them socially inconsequential” (Koschorke 2018, 9). However, both creating fiction and its reception are always subject to historically and culturally determined patterns (Franzen 2018, 269). From a sociological perspective that integrates linguistic pragmatics and literary theory, engagement with fiction can be a source to comprehend non-fictional physical, social, and cul-

tural experiences.¹ Regarding literary reception, a reader can interact with literary texts to engage with the extratextual aspects of literature (e.g., its social context) in a dialogic way, which, in turn, can lead to an expanded understanding of both literature and extraliterary experience.

Thus, a central meaning of literature lies in how a reader uses (their individual aesthetic experience of) literature. In this context, Rita Felski proposes four modes of textual engagement that “are neither intrinsic literary properties nor independent psychological states, but denote multi-leveled interactions between texts and readers that are irreducible to their separate parts” (2008, 14): recognition, enchantment, knowledge, and shock. First, the mode of recognition in reading literature “revolves around a moment of personal illumination and heightened self-understanding” (Felski 2008, 30). For example, a literary character can act as a prism that explores and potentially transforms the reader’s sense of self (Felski 2008, 35). Second, engaging with literature as enchantment “is characterized by a state of intense involvement, a sense of being so entirely caught up in an aesthetic object that nothing else seems to matter” (Felski 2008, 54). Literature as knowledge, the third mode, precludes that “[t]he truths that literary texts harbor come, to be sure, in many different guises” (Felski 2008, 103). A reader may perceive literary texts as “semblance, shadow, or illusion, or analogously the counterfeit or imitation” (Felski 2008, 77) of the world beyond literature.

A multiplicity of mimetic devices and storytelling techniques can build the aesthetic effects that create fictional worlds in literary works. This aspect, Felski contends, underpins the notion of using literature as a mode of engaging with texts as knowledge despite, or perhaps because of, fiction’s “epistemological shakiness” (Felski 2008, 90). Shock, the fourth mode of engagement, is less a conscious choice on the part of the reader than “a reaction to what is startling, painful, even horrifying” (Felski 2008, 105) about the (reader’s reception of the) literary text. That is, shock reflects literature’s impact on the affective state of the reader. We extend this notion of uses and engagement beyond literature to all types of fiction. Emphasizing the role that references to fiction can play in interpreting our experiences and in constructing and communicating meaning, we employ these modes as a general framework for analyzing the use of references to fiction in non-fictional forms of oral and written communication. References to fiction offer a variety of ways to do

1 Although our conceptual framework does not directly address adjacent cognitive implications, we recognize that our formulation is partly inspired by, but not solely based on, the idea of conceptual metaphor. References to fiction can be understood in terms of metaphorical entailment (Lakoff and Johnson 2003), as their use can generate a series of semantic and pragmatic implications or extensions that shape how we understand, and reason about, related concepts. In a more interpretive or constructivist sense, we see this use of language as a particular form of framing (Goffman 1974).

this. We can use them as metaphors, examples, comparisons, and/or forms of evidence. Moreover, various forms of argumentation can incorporate such references (Toulmin 2007, 15–21).

Literary references are common in media discourses, such as in the press (Lennon 2004) and in scholarly communication (Beer 2016; Yazell et al. 2021). In everyday language, people often use such references by comparing, for example, a unique situation to a movie or a novel, given that their applicability is limited only by the user's imagination and cultural consumption habits. References to fiction are a regular part of speakers' communicative repertoires in different contexts, and their prevalence can be observed in written and oral discourse in various social spheres.² Different uses of fiction featured significantly in media discourses on the pandemic. For example, social media users compared scientists who gained public visibility during the pandemic with movie heroes or villains (Butler et al. 2021, 440–48). At the same time, references to fiction served as a significant rhetorical device in various discourses on the pandemic in traditional broad-cast and print media.

On the one hand, this use of fiction was consistent with broader cultural consumption patterns during the pandemic, which may be exemplified by the heightened public interest in pandemic-themed fiction (Doherty and Giordano 2020), such as Steven Soderbergh's *Contagion* (2011), a film about the global spread of a severe infectious disease caused by a virus with transmission characteristics similar to SARS-CoV-2 (Sperling 2020). On the other hand, works of fiction “are neither mere representations or translations of social dynamics nor [...] purely works of art to be considered for their aesthetic qualities alone or without reference to the individual and social contexts and developments of their creation and reception” (Gaines et al. 2021,

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- 2 Many implicit and explicit phrases originated or were popularized in fictional sources. First, these phrases can be grammatically, semantically, and rhetorically ordinary. Second, there is the question of the extent to which speakers consciously use references to fiction. Third, identifying manifest and latent references can be a challenging task. Consider, for example, the phrase in contemporary German: ‘Das ist ein (zu) weites Feld’ (That’s [too] far afield). This phrase can be traced back to Theodor Fontane’s *Effi Briest* ([1895] 1966, 287), a realist novel widely taught in German schools. It can be found in everyday speech, German sociology (Esser 1999, 177), and German politics, especially when political vagueness precedes clarity (Gammelín 2020, 17). Readers familiar with *Effi Briest* will find it easier to understand this phrase as a reference to the novel. For those unfamiliar with the novel, its metaphorical meaning, which conveys that a particular topic or issue is too complex, broad, or expansive, is still accessible. By contrast, consider references to Cassandra, the eponymous priestess from Greek mythology whose accurate prophecies were consistently disregarded in both everyday and professional discourse, particularly during the pandemic, where many experts were portrayed as “[b]lessed with uncanny foresight, doomed to be disbelieved” (Confessore 2021). While it is an explicit reference, its meaning is a black box for those unfamiliar with the background of the reference.

12). These cultural artifacts can be seen as imagination machines that explore “our responses to alien worlds and situations which, though they are make-believe, anticipate the kinds of alienness to which we may have to respond in our own lives” (Parrinder 1980, 142). Considering the reception of pandemic fiction, particularly in media discourses dealing with various aspects of COVID-19, the question arises as to how references to fiction were used to create meaning in a novel and unprecedented situation.

Methodological Considerations

To study the presence of references to fiction in pandemic discourses in the print media, we compiled articles from select German, British, and US quality newspapers published between January 1, 2020, and December 31, 2021. The corpus consists of documents from four daily newspapers—*Süddeutsche Zeitung*, *Frankfurter Allgemeine Zeitung*, *The Guardian*, and *The New York Times*—and four weekly news magazines and newspapers—*Der Spiegel*, *Die Zeit*, *The Economist*, and *Time*. Neither the selected print media nor the final corpus constitutes a representative sample for making statistical inferences about the use of references to fiction in the print media and the public sphere during the period of interest. However, the sample does align with our qualitative aim of exploring such references in exemplary quality press. While our findings are substantial, it is important to consider the latent and manifest differences in reporting styles and rhetorical cultures within the public spheres of Germany, the United Kingdom, and the United States, as well as between individual media publications.

In particular, the feuilleton culture in German print media differs from the culture and arts sections of British and US newspapers. For example, the editorial style of *Der Spiegel* diverges from that of *The Economist* and *Time Magazine*. We assume that the thematic and rhetorical range of the German and Continental European feuilleton culture, prevalent in many newspapers, is closer to the style of weekly magazines such as *The New Yorker* in the US and *The New Statesman* in the British print media. While the editorial diversity within and between the German, British, and American print media would require a broader range of sources for a comprehensive analysis, our current sample focuses on the occurrence of various types of references in each selected publication. We found such references primarily in feuilleton texts or in arts and culture sections but also in opinion and editorial pages, political and business articles, lifestyle sections, and occasionally in science sections.

Table V.1: Data Corpus

Documents in Total	179 = 106 documents from daily newspapers + 73 documents from weekly news magazines
Daily Newspapers	<i>Süddeutsche Zeitung</i> , <i>Frankfurter Allgemeine Zeitung</i> , <i>The New York Times</i> , <i>The Guardian</i>
Weekly News Magazines	<i>Der Spiegel</i> , <i>Die Zeit</i> , <i>The Economist</i> , <i>Time</i>
Accessed Databases	sz.archiv.de, faz-bibliothek.de, lexis.com, go.gale.com, ebscohost.com

We used purposive sampling to locate and select articles with identifiable references to fiction published in the selected print media between January 1, 2020, and December 31, 2021. Due to limited access to the selected publications, we had to use various databases to search for and obtain the texts (Table V.1). Specifically, we used *LexisNexis* to access *Der Spiegel*, *Die Zeit*, *The New York Times*, and *The Guardian*; *EBSCOhost* for *Time*; *Gale* for *The Economist*; and the digital archives of *Frankfurter Allgemeine Zeitung* and *Süddeutsche Zeitung*. Differences in the relational architecture and coverage of each database may have limited the accuracy and comparability of the data corpus. However, it was possible to use the same set of thematic keywords in a search string tailored to each database's search syntax, operators, and standards (Table V.2). The database search resulted in a significant overcount of articles, primarily due to texts that met the keyword requirement without containing identifiable references to fiction. A natural limitation of a keyword-based search strategy is the increased likelihood of missing references to fiction outside the scope of the search string. We, therefore, also expect a significant undercount, especially of articles with implicit references. Investigating such references requires a combination of text mining and qualitative analysis beyond the scope of this chapter.

Table V.2: Search String

(corona ∨ covid ∨ pandemic ∨ epidemic)
^
(story ∨ narrative ∨ novel ∨ fiction ∨ literature ∨ film ∨ series)

In the next step of our selection process, we skimmed each document to select articles that contained keywords from both sides of the set and references to fiction. We then read each article selected in the previous step, both as a final step in our selection process and as the first step in our qualitative analysis, which allowed us to

select texts with pandemic-related foci. For example, we included a review of a pandemic novel because of its extensive discussion of the pandemic, while excluding other book reviews of the same or similar novels that did not emphasize COVID-19 as a thematic focus. In total, our final data corpus consists of 179 articles. Each document contains at least one identified reference to fiction and features COVID-19 as a salient theme. In the subsequent step of our qualitative analysis (Schreier 2017), we used MAXQDA to categorize the fictional source of each reference in the documents, their respective journalistic genre, and the professional background of their authors.

Findings

In this section, we present the structural features of our corpus and our conceptual observations. First, we outline the frequency of references to fiction in our sample of articles; second, their changes over time in 2020 and 2021; and third, more broadly, the various functions of such references in different media and typical writing formats, such as general articles, opinion pieces, and literary criticism. We do this by presenting exploratory readings of various texts in which references to fiction are used as meaning-making tools.

Table V.3: Frequency of articles with references to fiction and referenced format

Source	Articles	Referenced Fiction	References
<i>Süddeutsche Zeitung</i>	44	Prose fiction	282
<i>Die Zeit</i>	26	Movie	114
<i>The Guardian</i>	25	TV Series	50
<i>The New York Times</i>	24	Poetry	11
<i>Der Spiegel</i>	22	Drama	11
<i>The Economist</i>	19	Visual Arts	9
<i>FAZ/FAS</i>	13	Other	5
<i>Time</i>	6	Video Game	3

Regarding the frequency of references to fiction in the print media of our corpus, prose, movies, and TV series were the most common formats of fictional narratives referenced in the selected articles published between 2020 and 2021 (Table V.3). In addition, there is a higher frequency of such references in German print media compared with Anglophone media. For instance, *Süddeutsche Zeitung* (daily newspaper) had 44 texts with references to fiction, almost twice as many as *The Guardian* (UK) with 25, and *The New York Times* (USA) with 24. Similarly, *Der Spiegel* (22) and *Die Zeit*

(26), the German weeklies in our data corpus, had more references to fiction compared to the Anglophone *The Economist* (UK) with 19 and *Time* (USA) with 6. We expect these differences to result in part from the influence of the French concept of the *feuilleton* in German journalism, which blends journalistic and literary practices (Kernmayer and Jung 2017, 18–20; Kernmayer 2017, 57–65). While national specificities could be a factor in explaining these differences, our data do not suggest a strict link between national contexts and the frequency of references to fiction. For example, we found relatively few mentions of fictional sources in pandemic-related articles in the German *FAZ*, even though it is known for its extensive *feuilleton* culture (14).

Illustration V.1: Articles with references to Fiction in 2020 and 2021

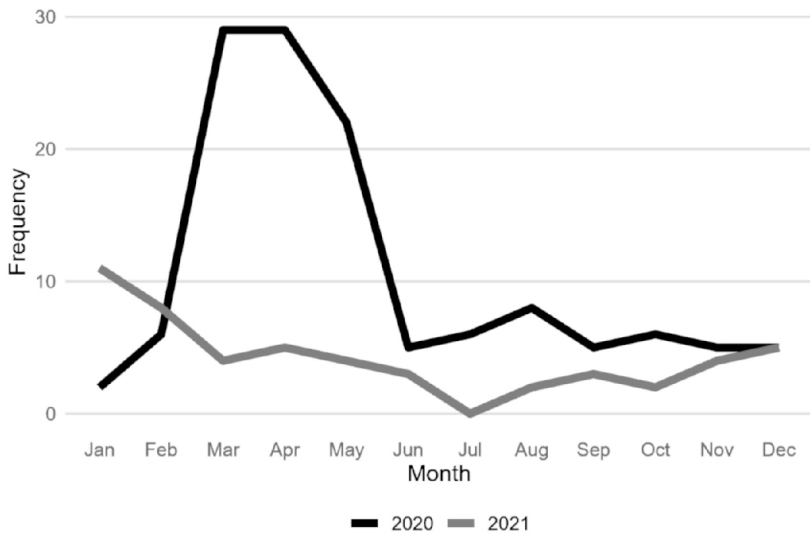


Illustration by the authors of this chapter.

The overall presence of references to fiction hints at their general relevance as a rhetorical device in these texts. In terms of their presence as a means of sensemaking and reassurance during the pandemic, Illustration V.1 shows that the frequency of articles with such references changed over time. It peaked at 29 in March and April 2020, dropped to five in June 2020, and stabilized in the single digits for the rest of the period, except for January 2021. We associate the increase in references with the first wave of the pandemic in Germany, the United Kingdom, and the United States when the first lockdown measures and stay-at-home orders were implemented in all

three national contexts, suggesting the importance of fiction as a source of sense-making in the immediate response to unfolding events.³ In an unknown, threatening situation with yet little solidified scientific knowledge to rely on, media writers turned to fiction. While we discuss the observed uses of fictional sources in more detail in the following, the changes in frequency suggest the initial importance of cultural artifacts in situations of overwhelming uncertainty and a decrease over the subsequent stages of the pandemic.

Fictional narratives seem to offer an archive of experience and knowledge flexible enough to provide some temporary, ad-hoc guardrails of orientation when other forms of sensemaking do not work because of a lack of subjective experience with the situation or institutionalized knowledge about it. In the first wave of the pandemic, most people in Europe and North America found themselves in the first lockdown of their lives, and scientific knowledge about the coronavirus was only beginning to emerge and had to be translated. During the first two years of the pandemic, both dimensions of uncertainty diminished in different patterns. While lockdowns were lifted and reimposed several times, the scientific understanding of the new virus increased rapidly, leading to the improvement and invention of countermeasures—the most important of which were vaccines. For the brief period of the first wave, however, our sample reveals a situation in which fictional sources gained increased importance as a means of sensemaking and reassurance.

Our corpus discloses a wide range of uses of references to fiction in print articles. They function as descriptive devices and, in some pieces, as essential means of making sense of the argument in the given text. Such applications go beyond purely aesthetic connotations and provide an understanding of the physical, social, and cultural experiences of the pandemic. In the following section, we discuss the use of such references in an exemplary set of documents from our corpus to illustrate the heterogeneity of strategies we found in their use. References to fiction were used in news articles and interviews, as seen in the first section. They also appeared in opinion pieces (section two), in features by guest authors from the social sciences written in the tradition of either commentary or social/cultural criticism (section three), and in essays by literary critics and writers (section four).

New Articles and Miscellaneous Pieces

The corpus includes references to fiction in very different forms of journalistic writing about and during the pandemic. While the following sections present their use in more specific thematic and stylistic forms of writing, we first highlight their use

3 While this is beyond the scope of our study, we would assume that the total number of articles on the pandemic also peaked during these months.

in miscellaneous pieces. Most of these articles deal with the situation during the initial outbreak in Wuhan or the initial lockdowns in other COVID-19-affected regions in China and beyond.

Xifan Yang's text from January 30, 2020, asked whether the local, provincial, and national authorities of the People's Republic of China authorities had waited too long with their initial response. When the text was published, it was known that the first cases of the then-novel coronavirus were identified in December 2019, while the central government did not impose a lockdown on Wuhan and other parts of Hubei province until January 23, 2020. The first two paragraphs describe the silence on the streets of Wuhan, in contrast to the speculative noise that characterized Chinese social media immediately after the first lockdown began. Yang notes that Camus's *The Plague* and *Chernobyl* (HBO and Sky Atlantic, 2019), a television miniseries about the 1986 nuclear accident, had gained considerable traction on various online platforms shortly before the first outbreak in December 2019. Citing a user comment on douban.com—a Chinese social networking platform and media database where users discuss fiction, among other things—she compares the events depicted in the miniseries with the reality on the ground: “Wuhan and Chernobyl! How distressing are the parallels!” (Yang 2020).⁴ In terms of the use of fiction, we categorize Yang's reference to the fictionalization of historical events depicted in the series, which shows how ignorance guided policy in the face of a nuclear meltdown, as a double-layered form of recognition of, and shock at, the similarities between the unfolding crisis and historical antecedents. Within her argument, the comparison supports her claim that a delayed policy response of a similar nature, not only in China but globally, could have unintended consequences that would exacerbate the impact of COVID-19.

In other articles, references to fiction are used to compare and understand the individual and collective experience of the first lockdowns in 2020, recognizing parallels between factual and fictional events. Mark Bishop, a university lecturer in journalism writing for *The Guardian*, captioned an autobiographical summary of his daily life in the closed city of Nanning in Southern China with “It's like being in a science fiction film” (2020). A similar genre reference, but to a specific subset of science fiction, was made in *Der Spiegel* (Pitzke 2020), which compared the first wave of the COVID-19 pandemic in New York City, the hardest-hit area in the United States at the time, to movies directed by Roland Emmerich, most of which emphasize destructive stakes on a global scale. Alexander Osang, a journalist and a writer, referenced *The Hurt Locker* (Bigelow, 2008), a film about a U.S. Army ordnance disposal team during the Third Gulf War, to describe the cautious nature of his movement through Tel Aviv, the epicenter of Israel's first wave, during the city's first lockdown due to the perceived and real possibility of contagion: “I began to leave the house

4 Translations of German texts are by the authors of this chapter.

wearing only a face mask and viewed people I met on the street as a threat. I walked around town like the bomb disposal specialist in the movie *The Hurt Locker*" (Osang 2020). He emphasizes how the risk of contagion rewrote the rules, that is, the situational properties that govern an individual's behavior in public places (Goffman 1966, ch. 12). COVID-19 normalized physical distancing and mask-wearing in face-to-face encounters and social occasions, and social gatherings were forbidden, postponed, or held with limited attendees and stringent health protocols.

In terms of his engagement with fiction, Osang primarily recognizes the similarity between his public behavior and that depicted in the film. Moreover, we argue that enchantment is also at play, but not enchantment with literature, but in the sense of being entirely caught up in the particular moment of the pandemic that, as the all-encompassing context, imperiously dictates his perception in general and that of fiction in particular. We find this latent element of negative enchantment by the crisis in many of the articles in our corpus, especially in those that employ a deep intersubjectivity in terms of style and content, depicting people as "embedded and embodied agents" (Felski 2008, 91) and focusing on the particular view from the inside of experiencing the "qualities of a life-world" of the pandemic (Felski 2008, 89).

In addition to using references to fiction to contextualize the situation in the early stages of the pandemic, not only journalists but also persons of interest featured in various forms of reporting on pandemic-related issues occasionally used such references. In an interview about the political response to the pandemic with *Der Spiegel*, Markus Söder, the prime minister of the German state of Bavaria, referred to Emmerich's *2012* (2009), a movie about a cataclysmic disaster caused by a geomagnetic pole shift, to explain his general political approach aimed at preparing German society for the political, social, and economic consequences of the pandemic: "I don't want us to end up feeling like in the last scene of the movie *2012*. You look at the planet, and the world is different. The continents have shifted, and Europe has become smaller" (Clauß et al. 2020).

In a feature report on his central role in spreading conspiracy narratives about the extent, origin, and treatment of the pandemic and in organizing protests against the German political response, Bodo Schiffman, an otolaryngologist, compared his decision to doubt such measures and downplay COVID-19 to that of the main character in the movie *The Matrix* (Wachowski and Wachowski, 1999): "How did it all begin? When he talks about it, he is referring to Neo, the hero of the movie *The Matrix*. Neo is offered two pills, one blue and one red. If he takes the blue pill, he returns to his dream world. If he takes the red pill, he will know the truth. Schiffmann says he took the red pill, just like Neo" (Großekathöfer 2020).

Although the corpus only contains three references to fiction that we attribute to scientists in biomedical disciplines, Stuart Turville, an Australian virologist, referred to *Nanny McPhee* (Jones, 2005), a film based on the *Nurse Matilda* books (Brand

1962), in an article about the importance of understanding the connection between humans, animals, and the environment in planning for future pandemics. In terms of argumentation, we interpret this use of fiction to support his understanding of the role of a scientific expert to policy-makers and the wider public sphere before and during the pandemic: “When you need me, but do not want me, then I must stay” (Davey 2021). Moreover, we argue that Turville’s use of *Nanny McPhee* amounts to engaging with fiction as conceptual knowledge. While this reference remarkably expresses a normative principle of expert behavior in the form of a proverb, the limited number of references to fiction used by biomedical scientists and science journalists suggests, among other things, that referencing fiction may not be part of their core communicative repertoire, at least in their public role as experts when they appear in a non-scientific medium aimed at a general audience.

Opinion Pieces

Most of the editorials and op-eds that contain references to fiction in our corpus, published primarily in the feuilleton, arts, and culture sections of the publications we examined, use them as relatively isolated elaborations to illustrate a singular aspect of their respective points of view. One notable use of fiction as an object of recognition and knowledge is Alexander Kluge’s conceptual analysis of SARS-CoV-2, elaborated through references to Greek mythology, especially Homer’s *Odyssey* (800 BCE) and German folktales in the tradition of the Brothers Grimm. It is part of an open letter by Kluge, a German author, philosopher, academic, and film director, in response to public statements by Giorgio Agamben, an Italian philosopher whose doubts about the severity of the pandemic had been widely criticized in the European public sphere in 2020:

The virus Sars-CoV-2, like all viruses, has four robust characteristics. It can cut, stick, mutate, and replicate. It has learned to disguise itself in a very short period of time (it only recently encountered human lung cells, after all). Just as the cunning Odysseus tells the giant Polyphemus, “My name is Nobody.” (He mumbles his name Odysseus, which sounds like ‘oudeis,’ which means ‘nobody’ in Greek. As a result, the giant perceives him as harmless.) Or, like the flour-dusted paw of the wolf in the fairy tale “The Wolf and the Seven Little Goats,” which causes the young goats to mistake him for their mother and allow him to enter the house. (Kluge 2020)

In addition, several opinion pieces use references at the beginning of their texts to frame or foreshadow the underlying argument. A piece of science journalism published in *The Guardian* on March 6, 2020, arguing for a worst-case scenario approach to preventing future pandemics, refers to science fiction, in which “we sometimes

encounter the idea of a pandemic so severe that it could cause the end of civilisation, or even of humanity itself” (Ord 2020). This genre reference is the starting point for a review of past and possible future pandemics that could pose an existential risk to society. Similarly, a remark on the implausibility of an imaginary fictional film “about a US president mismanaging the response to a dangerous pandemic would never depict its lead character anywhere near as selfish and bumbling as Donald Trump in the age of Covid-19” (Gaffney 2020) is used in an opinion piece criticizing the political response of the first Trump administration during the onset of the first wave of the pandemic in the United States.

Jochen-Martin Gutsch (2021), a columnist and a writer, referred to *Good Bye, Lenin!* (Tykwer, 2003), a movie about the East German experience of the German reunification, to frame the uncertainty and various changes in his social life caused by SARS-CoV-2. He suggested that a movie could be made about the pandemic, similar to the plot structure of the film, in which the main protagonist, Gutsch himself, falls into a coma in January 2020, shortly before the first outbreak in Germany, only to be overwhelmed by the total shock of the changes brought by the pandemic when he awakens in the winter of 2021. We suggest that such uses of references to fiction demonstrate an engagement with fiction through recognition and as knowledge and serve a more substantive rhetorical function in these texts than those used primarily to recognize similarities and highlight comparative elements.

Features/Social and Cultural Criticism

This and the next section examine an even more significant use of references to fiction in social, cultural, and literary criticism, written primarily by public intellectuals and cultural critics. As noted above, this may reflect the journalistic, structural, and rhetorical differences in the German print media, whose *feuilleton* culture transcends the thematic focus on literature and art criticism found primarily in the arts and culture sections of the British and US quality press. Another salient observation concerns the authors of such pieces, many of whom can be considered public intellectuals with backgrounds in the social sciences, the humanities, cultural and literary criticism, the arts, or as writers. Lothar Müller, for example, is a German cultural critic, literary scholar, and feature editor. Eva Illouz, a French-Israeli sociologist, and Rudolf Stichweh, a German sociologist, are internationally renowned scholars who regularly participate in public debates; Illouz in the public discourses of the wider Western world and Stichweh particularly in the German public sphere.

In his opinion piece on the economic and social future of cities after the pandemic, Paul Krugman, an American Nobel Prize-winning economist and regular contributor to *The New York Times*, known in the United States for his wide-ranging public commentaries on current events, uses *The Naked Sun*, a science fiction novel

by Isaac Asimov (1957), as a source of knowledge to introduce and frame the entire argument of his text:

In 1957 Isaac Asimov published *The Naked Sun*, a science-fiction novel about a society in which people live on isolated estates, their needs provided by robots and they inter-act only by video. The plot hinges on the way this lack of face-to-face contact stunts and warps their personalities.

After a year in which those of us who could worked from home—albeit served by less fortunate humans rather than robots—that sounds about right. But how will we live once the pandemic subsides?

Of course, nobody really knows. But maybe our speculation can be informed by some historical parallels and models. (Krugman 2021)

Instead of science fiction, Ilouz, Stichweh, and Müller refer to the historical canon of German literature and European arthouse cinema in their feuilletons. Stichweh's text (2020) refers to Thomas Mann's *Buddenbrooks* as a rhetorical device to elaborate on the contrast between the nineteenth century, when infectious diseases were a regular cause of death in Western Europe, and the public health approach during the COVID-19 pandemic. Using literature primarily as a form of knowledge and an artifact of recognition, Müller (2020b) juxtaposes references to sociological concepts and historical dictionaries with classic German literature, such as Johann Wolfgang von Goethe's *Wilhelm Meister's Apprenticeship* (1795–96) and *The Sorrows of Young Werther* (1774), to discuss the idea and the manifestations of a pandemic society. He uses references to the individual experiences of Werther, the protagonist of the latter novel, as he encounters constraining social structures in his quest for self-realization, to complement and critique macrosociological notions of society that he believes were too prevalent in the public discussion during the pandemic, citing Werther's diary: "I've made all kinds of acquaintances, but I have not yet found real companionship" (Goethe 1774, 13).

In an extended argument for a new social contract that emphasizes the role of state institutions in strengthening global, public, and environmental health, Ilouz refers to Lars von Trier's *Melancholia* (2011), an apocalyptic film about the strained relationship of two sisters just before a mysterious planet collides with Earth, acknowledging how the particular scene she refers to informed her daily experience and thought process:

As we are lost in a global event whose magnitude we have yet to fully comprehend, the final scene of Lars von Trier's movie came to my mind. In the second week of January, I first read about a strange virus in the American press, and I was all ears because my son was about to travel to China. The virus was still far away, like the distant disk of a dangerous planet. My son canceled his trip, but the disk continued its relentless course. Now we are all watching, para-

lyzed, the progress of the pandemic after the world as we knew it has been shut down. (Illouz 2020)

Illouz uses this reference to understand the inevitability and magnitude of events that require the interplay of all subfields of world society. In this sense, she does not compare the rogue planet in *Melancholia* to COVID-19 but rather to potentially even more severe events such as human-induced climate change. Like Müller's and Krugman's texts, her essay is a quintessentially political and social critique, grounded in a social science perspective that uses the fictional imagination to inform its scientific, or in this case sociological, imagination.

Literary Essays

A particular form of literary criticism further engages with the fictional imagination as a form of recognition and knowledge, using a variety of historical and contemporary pandemic fiction to describe and explain COVID-19. Although numerically insignificant compared to the many documents that use references to fiction, the exploration of the pandemic in these texts is explicitly based on fiction. Our corpus shows that such texts were published primarily during the first wave of the pandemic in March, April, and May 2020. This finding is consistent with our observation that this period shows the most frequent use of such references, indicating a profound need for orientation in a situation where little knowledge about the nature of the virus coincided with new and disruptive collective experiences such as lockdown policies. They also appear in every daily and weekly publication of our corpus (e.g., Assheuer 2020; Müller 2020a; Greiner 2020; Roberts 2020; Botting 2020). These texts also highlight how past outbreaks of infectious diseases have inspired art, music, and fiction ("How Pandemics Have Inspired Art, Music and Literature" 2020).

Adam Roberts (2020) argues that novelists have long been fascinated by pandemics. In his text, he reviews fiction from Greek antiquity, beginning with Homer's *Iliad* (800 BCE), and nineteenth-, twentieth-, and twenty-first-century English literature to contemporary films. His engagement with fiction provides the backdrop for his critique of the public understanding of the COVID-19 pandemic and epidemics in general: "We still tend to see agency in our pandemics. [...] With Covid-19, experts insist, your two best bets are: wash your hands often, touch your face never. But people do not warm to the existential arbitrariness of this. [...] This attribution of agency is clearest in the many imaginary plagues science-fiction writers have inflicted on humanity. In place of gods we have aliens, like those in Alice Sheldon's chilling and brilliant short story 'The Screwfly Solution' (1977)" (Roberts 2020).

Thomas Asshauer's text (2020) points out that plagues have always infected the cultural imagination, and that the latter has often suspected that civilization did

not deserve it any other way. This fascination has found expression in a variety of narratives, ranging from medieval cultural myths, with their mechanisms of guilt, punishment, and atonement, to contemporary popular films such as Wolfgang Petersen's *Outbreak* (1995), in which killer viruses avenge the destruction of the African wilderness, and the aforementioned *Contagion*, in which the virus is synonymous with the disrupted balance between humans and animals: "The cultural narrative is almost always identical. Like a hostile agent, the virus creeps into everyday life and infects people drifting mindlessly through the stream of life with disease and death. The viruses are uncanny, even uncannily conservative. They remind ordinary people of the transience of their existence and mercilessly make them realize that it is a miracle that a society as incomprehensibly complex as modern society functions at all" (Asshauer 2020).

Orhan Pamuk's essay, published in *The New York Times* (2020a) and *Süddeutsche Zeitung* (2020b), can be seen as a blueprint for literary criticism of the COVID-19 pandemic. Pamuk, a Turkish novelist and Nobel laureate in literature, discusses similarities between the coronavirus pandemic and several past pandemics, such as the historical outbreaks of plague and cholera. His essay focuses on aspects of social epidemiology, particularly the social factors that structure the course of infectious diseases and the patterns of collective responses. He does so primarily through the use of historical pandemic fiction, such as Daniel Defoe's *A Journal of the Plague Year* (1722) and Alessandro Manzoni's *The Betrothed* (1827):

In the early pages of *A Journal of the Plague Year*, the single most illuminating work of literature ever written on contagion and human behavior, Daniel Defoe reports that in 1664, local authorities in some neighborhoods of London tried to make the number of plague deaths appear lower than it was by registering other, invented diseases as the recorded cause of death.

In the 1827 novel *The Betrothed*, perhaps the most realist novel ever written about an outbreak of plague, the Italian writer Alessandro Manzoni describes and supports the local population's anger at the official response to the 1630 plague in Milan. In spite of the evidence, the governor of Milan ignores the threat posed by the disease and will not even cancel a local prince's birthday celebrations. Manzoni showed that the plague spread rapidly because the restrictions introduced were insufficient, their enforcement was lax and his fellow citizens didn't heed them. (Pamuk 2020a)

Pamuk's use of Defoe's and Manzoni's novels highlights social processes that have been common in many countries, especially in the Global North except East Asia, during the ongoing pandemic: an initial public and political impulse to deny the epidemiological severity, followed by a late response and subsequent distortion of the facts to deny the existence of an outbreak and to acknowledge that earlier action might have been possible and, above all, more effective. Pamuk argues that another

typical response to initial outbreaks was creating and disseminating false information. This has often led to additional forms of suffering and outrage against actors allegedly and actually responsible for the spread of infectious diseases: “The history and literature of plagues shows us that the intensity of the suffering, of the fear of death, of the metaphysical dread, and of the sense of the uncanny experienced by the stricken populace will also determine the depth of their anger and political discontent. As with those old plague pandemics, unfounded rumors and accusations based on nationalist, religious, ethnic and regionalist identity have had a significant effect on how events have unfolded during the coronavirus outbreak. The social media’s and right-wing populist media’s penchant for amplifying lies has also played a part” (Pamuk 2020a). Beyond these similarities, he emphasizes that the disinformation epidemic was fed not only by rumor but also by a plethora of accurate and ever-changing information, which, due to the uncertain and evolving nature of COVID-19, was difficult for non-experts to comprehend. These paragraphs illustrate how Pamuk’s essay, exemplary of the pieces of literary criticism we found in our corpus, substantially builds on and engages with the social knowledge embodied in pandemic fiction. In particular, such forms of journalistic writing do not use references to fiction for purely rhetorical reasons. Instead, they structurally incorporate the fictional imagination as a primary tool to make sense of the physical, social, and cultural experience of COVID-19. In terms of textual engagement, this often involves using fiction as knowledge and as objects of recognition.

However, Pamuk’s text and similar articles, which are very few in our corpus, also display a distinct mode of double enchantment. On the one hand, we perceive in the text a negative enchantment of the pandemic found in many articles in the corpus. As an overarching situational background in which the articles were produced, this enchantment framed any reception and use of the fiction. On the other hand, such texts also seem to be products of enchantment with fiction; that is, we read them as artifacts of an intense involvement with fiction that shaped the author’s individual experience of the pandemic. In a sense, such texts are readings of the pandemic through the lens of fiction.

Conclusion

Due to its ambiguity, fiction invites interpretation. And because readers bring their own unique experiences, their interpretations differ from one another. Accordingly, engaging with fiction can refine and enlarge “our empathic sensitivities to morally charged situations, exposing us to exemplars—imaginary ones—of demanding, complex situations beyond those we are likely to encounter in daily life, expanding the circle of those we care about and our ability to help them” (Currie 2020, 199). But the use of fiction also “can spread ignorance, prejudice, and insensitivity as effectively

as it provides knowledge and openness” (Currie 2020, 204). During the first months of COVID-19, “many critics, historians, and others isolating in their homes turned to fiction as a cultural archive” (Catlin 2021, 1447), highlighting the role of fiction as part of the cultural memory that shaped significant aspects of the public discourse on the pandemic. Our exploratory corpus shows how, during times of crisis, when scientists and experts struggled to communicate their often preliminary findings to the public, parts of public discourse in the quality press turned to fiction to provide meaning to society.

Despite the methodological limitations of our corpus approach, the text data suggest a continuous presence of references to fiction in pandemic-related articles in the sampled publications from the German, British, and US quality press in 2020 and 2021. German print media showed a higher frequency of such references than British and US media. At the same time, there were substantial frequency differences between the different publications in each country. The corpus includes references to fiction in different journalistic genres and article types, such as news articles, interviews, and opinion pieces. The most frequently referenced form of fiction in the corpus was by far prose fiction, followed by movies and TV series. While the use of works of pandemic fiction is widespread in the articles, the corpus does not reveal a dominant genre. The variety of fiction used in the texts is remarkable, including historical works, canonical classics, and a considerable amount of popular and contemporary fiction.

Of particular note is the peak in the frequency of articles with references to fiction in March and April 2020. It then declines and stabilizes at a low rate for the remainder of 2020 and 2021. The time series corresponds to the local stages of the pandemic, as the first lockdowns in Germany, the United Kingdom, and the United States occurred in April, March, and May 2020. We experienced the unfolding events at that time as a period of considerable societal uncertainty and uncontrollability. From this perspective, the data support the notion of fiction as a critical component in the toolkit for making sense of and coping with the pandemic. Our corpus supports this idea—at least in print media and journalism, although especially during the initial lockdowns, various forms of fiction, especially those dealing with infectious diseases, received increased attention in various social spheres, as indicated by, among other things, reading trends, increased sales of literary fiction, and an upswing in streaming service subscriptions and viewership.

With respect to the rhetorical and argumentative uses of referring to fiction in the articles of the corpus, their function within and importance to the purpose of the text varies considerably. Moreover, the argumentative use of such references seems to be more substantial in the social, cultural, and literary criticism we identified. Especially in the literary essays, fiction tends to be central to the overall argument. With regard to the four modes of engagement with fiction identified by Felski, two aspects need to be emphasized. First, the most common modes are knowledge and

recognition. Shock is present in only a few articles published during the early stages of the pandemic. In addition, a few references to fiction indicate enchantment as a mode of engagement with fiction—which leads to the second important aspect.

We assume two patterns in the direction and movement of engaging with fiction in the corpus. Notwithstanding the particular rhetorical and argumentative purpose of the reference to fiction in the respective text, the standard pattern uses fiction as a point of reference that corresponds to the particular aspect of the pandemic that is the thematic focus of the respective text passage or entire text. In other words, first comes the experience of the pandemic and then the reception or, more precisely, the re-reception of fiction. This reception is, in negative terms, enchanted with the pandemic experience. The involvement with the pandemic guides the engagement with fiction. Osang's text on his movement through the public places of Tel Aviv, which resembles the behavior of bomb disposal specialists depicted in a movie, is a paradigmatic example of this negative enchantment. An argument can be made that negative enchantment features in almost any text in the corpus, especially those published in early 2020. In turn, Pamuk's text is one of the very few articles in the corpus that display a form of double enchantment, a circular notion between understanding the pandemic through fiction and revising understandings of fiction through experiencing the pandemic.

In terms of enchantment, COVID-19 entirely caught up society, and the warranted social response imperiously dictated the terms of its reception, especially in 2020 and 2021. In this sense, the use of fiction observed throughout the corpus helped to frame, contextualize, and comprehend the pandemic experience—and by doing so contributed to the disenchantment and normalization of the pandemic crisis.

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A Year of “Very Historic Breakthroughs”?

Scientific Breakthrough Claims and Narratives in the Public Reporting of Coronavirus Research in 2020

Anton Kirchhofer

“A Very Historic Breakthrough”–Not?!

On August 24, 2020, both *Science* magazine and the *New York Times* reported on “a highly unusual Sunday night press conference,” during which “U.S. President Donald Trump revealed what he described as ‘a very historic breakthrough’ in the fight against COVID-19” (Kupferschmidt and Cohen 2020). In view of this breakthrough, it was announced, the U.S. Food and Drug Administration was authorizing a new type of treatment, “issu[ing] an emergency use authorization (EUA) for convalescent plasma to treat people with severe COVID-19” (Kupferschmidt and Cohen 2020). The reports and comments in *Science* magazine and the *New York Times* were decidedly critical, and both of them pointed out two major considerations that called the announcement into question. First, the claim “that the plasma therapy could save the lives of 35 out of every 100” critically ill patients was inflated in consequence of misinterpreted statistics, as the F.D.A.’s commissioner subsequently conceded: “the number is much closer to three to five out of every 100.” In addition, “even that lower estimate is questionable,” since the “data came from an observational study, not a rigorous clinical trial,” as the *New York Times* stressed (“Politicizing Medical Science Will Cost American Lives” 2020). *Science* magazine reported further criticism from independent scientists who denounced the measure as an instance of political interference in scientific decisions: “Eric Topol, a cardiologist who directs the Scripps Research Translational Institute, says the EUA ‘again represents the FDA caving directly to Trump pressure,’ as he believes it did when it issued an EUA (later rescinded) for hydroxychloroquine treatment for COVID-19. ‘It sadly and unacceptably exemplifies loss of independent FDA assessment of evidence and data overridden by political pressure,’ Topol says” (Kupferschmidt and Cohen 2020).

In this situation, falsely proclaiming a scientific breakthrough was not simply an academic matter. There are potentially severe real-life consequences to the propagating of exaggerated, misguided, and potentially harmful breakthrough claims,

and a responsible science journalism must see cause for concern about the relationship between science and politics: “Many scientists worry the same could happen in future decisions about EUAs for COVID-19 vaccines—with far greater potential consequences because vaccines presumably will be given to hundreds of millions of healthy people” (Kupferschmidt and Cohen 2020). That later worry, however, would disappear from breakthrough reporting by the end of the year, when the conflicting breakthrough claims advanced by different political and scientific agents had given way to a celebration of the surprisingly quick development of effective vaccines. But the question of authority over the public designation of an aspect of scientific research as a breakthrough in relation to the COVID-19 pandemic remained virulent throughout the year.

The reports in fact illustrate a number of points that will be relevant to this essay. To begin with, they put into evidence the set of players involved in making, confirming, or rejecting claims about scientific breakthroughs: scientists, science journals, general media, and political agents each claim their share of authority in deciding about whether a scientific breakthrough has occurred or not. Secondly, the reports appear to lend plausibility to those scientists who claim that situations such as the COVID-19 pandemic take societies beyond the operations of what we have come to know as ‘normal science’ (Kuhn 1962). That is, that the situation poses challenges that can no longer be addressed through the processes reaching solutions through iterative cycles of puzzle-solving within the framework of an established scientific paradigm. The pandemic should instead be conceptualized as a time of ‘post-normal science,’ creating a crisis in the conditions of knowledge production, and calling for a “new understanding of science for situations when facts are uncertain, stakes high, values in dispute and decisions urgent” (Waltner-Toews et al. 2020). Finally, the reports also put into evidence the one point that appears to be accepted by all involved: a true ‘scientific breakthrough’ would allow societies to deal effectively with the situation that arose with the spread of the coronavirus in the winter of 2019/2020.

Throughout the first year of the pandemic, the questions of whether a breakthrough had occurred and what it consisted in, received a sustained, if not always extensive, amount of attention in the public reports on scientific research. This contribution will review the evidence of the often contested ‘breakthrough coverage’ during the first year of the pandemic. Its goal is to shed light on the particular varieties of ‘breakthrough narratives’ that were being constructed by different agents and voices in the arena of public discourse on science.

As a first working conception I posit that each breakthrough claim, however great or small the detail in which it is presented, contains at least an implied narrative. The breakthrough represents a turning point, a point that introduces a radical difference between whatever situation existed before, and whatever new situation is created by the event that is characterized as a breakthrough. Those who engage in breakthrough discourse, whether by making breakthrough claims or by reporting,

assessing, or contesting them, will give more or less detailed, more or less established versions of the difference between the pre- and post-breakthrough situations, and of the quality of the event that effected the shift between the two situations. But the very pattern of perception that the scientific breakthrough narrative establishes is a narrative pattern. To focus on the occurrence of breakthrough discourse and on the different, more or less elaborate forms of narrative that are connected to it, may help us better understand both the modes of construction and the functions of this particular kind of science narrative. It may offer, at the very least, a retrospective account of how the public debates around scientific breakthroughs in COVID-19-related research contributed to the cultural process of coming to terms with the Covid crisis.

Prior to engaging in this examination, it may be helpful to outline a preliminary heuristic for the following analysis. In examining breakthrough discourse (i.e., any instance in which a scientific breakthrough is mentioned in any form), I will distinguish between 'breakthrough claims' as instances when something is explicitly described as a breakthrough by a given source, 'breakthrough reports' as instances when a breakthrough claim is reported but not necessarily embraced and endorsed, and 'breakthrough narratives' as the implicit narrative dimensions of a given breakthrough claim, whether embraced or merely reported, which elaborates in greater or lesser detail the events and factors that led up to the breakthrough or stood in its way, as well as the changes of situation that the breakthrough is likely to effect or has already effected.

The account of breakthrough discourse that will emerge in the course of this chapter will trace the several trajectories, shifts of direction, and various players in breakthrough debates through the course of the year 2020. It will record the changing constellations of breakthrough skepticism, breakthrough controversies, and tentative hopes for scientifically substantiated breakthrough claims. In the process, we will see considerable variation in the degree of elaboration, the temporal focus, as well as in the implied argument of the narratives. The multiple agonisms in breakthrough coverage throughout the year give way to a range of celebratory breakthrough narratives that dominated science reporting toward the end of 2020. Those retrospective narratives, in contrast, will be selective in that they leave out most of the controversial claims, as they leave out the story of careful monitoring, insistent warning, and even determined resistance against misleading breakthrough bids that these required at the time. In a field marked by contested and disputed claims, the leading media in science reporting draw on scientific breakthrough narratives that seek to offer orientation and authority, calling for trust in the scientific process by concentrating on the steps that brought about the improbable breakthroughs in the prevention and treatment of COVID-19.

Backgrounds and Frameworks

On Scientific Breakthroughs and Breakthrough Narratives

The ‘scientific breakthrough narrative’ forms one of the major tropes in popular representations of the history of science. There is no shortage, in popular science writing, of accounts of the “scientific breakthroughs that changed the world” (see Horvitz 2002). But the scientific breakthrough narrative is by no means limited to historical accounts of science or to the sphere of popular science writing. ‘Breakthrough discourse’ occurs across a wide range of public as well as specialist discourses of science, from science journalism and science communication to the discourse of the sciences themselves.

Notwithstanding the long tradition and ongoing relevance of breakthrough narratives in the perception and mediation of events and developments in the sciences, only a comparatively small body of work has been done on the phenomenon in science studies. In the history, the philosophy, or the sociology of science, ‘breakthrough discourse’ is rarely employed. But neither, as a rule, is it studied. As Nik Brown ([2000] 2016) notes in one of the few academic engagements with breakthrough discourse, the ‘breakthrough’ trope has often been criticized for being overused. While there are, no doubt, many valid arguments in favor of developing other and more appropriate concepts for representing the processes of scientific knowledge production and specifically the innovative dynamics in science, there is also a case in favor of research on how these dynamics are represented, conveyed, and contested in public discourses in and about the sciences. A clearer insight into the deployment, the functions, and effects of breakthrough discourse in the representation and mediation of science is desirable, if only because scientific breakthrough narratives continue to be used in the context of the public mediation of scientific work and its results. For all its widespread occurrence, we know very little about the varieties, the functions, and the specific distribution of breakthrough discourse and breakthrough narratives across the discursive landscape in and around the sciences.

The same is true, incidentally, for the occurrence of scientific breakthrough narratives in literary fiction, despite the significant number of novels whose plots are clearly constructed around scientific breakthroughs. Contested or hypothetical breakthroughs in contemporary science novels, significant breakthroughs in the history of science in historical fiction, or indeed hypothetical breakthroughs and their potential effects and consequences in speculative fiction, all would de-

serve closer critical attention in the context of an examination of public science narratives.¹

I would like to propose, as a more general working hypothesis, that scientific breakthrough narratives tend to be concerned with assessing and negotiating the *transformative dynamics of scientific innovation*. On the evidence of a cursory review of instances of the breakthrough narrative across literary fiction, popular science writing, and science journalism,² it appears to be one of the fundamental convictions in modern societies that scientific innovation leads to changes not just in the sciences but also in society. As the popular title quoted above indicates, the assumption is that scientific breakthroughs have the power to “change the world” (Horvitz 2002), and one of the points of interest and engagement with them lies in the exploration of the ways in which they are said to do so. As in popular science writing, but arguably with a decidedly different range and set of perspectives, historical breakthrough narratives in literary fiction provide accounts of how, for better or worse, human thought and human societies have been transformed in consequence of scientific innovation. Similarly, contemporary or near-future breakthrough narratives address how, again for better or worse, current or future scientific innovation may transform life in contemporary societies, or in the societies of the more immediate or more distant future. The idea that “[s]cientific and technological innovation has always created social and economic transformation” is also shared by leading science journals (“Scientific Events That Shaped the Decade” 2019, 337). Modern societies, it appears, understand themselves as shaped, in vital dimensions, through the processes of a transformative dynamics of scientific innovation.

Against this background, I propose a further working conception: the scientific breakthrough narrative may be understood as *an established discursive tool, deployed across a wide spectrum of public and specialist discourses in and around the sciences, for negotiating the transformative dynamics of scientific innovation*. As such, the scientific breakthrough narrative may be said to have a distinctly *diachronical diagnostic* dimension. It proposes a specific assessment that not only claims to define a situation but also positions it at one specific juncture within the succession of three distinctly constellated states: a first and third state which differ radically from each other in some specific ways posited by the narrative, and an intervening breakthrough event or phase, in which the factor causing the radical change emerges. The scientific breakthrough narrative therefore enables the discursive positioning of propositions concerning

1 A more comprehensive project, still evolving, of which this chapter is a facet, is designed to look at scientific breakthrough narratives in literary fiction, as well as, contrastively, at breakthrough discourse across a range of public media.

2 I am indebted to the research assistance of Sina Rothert and Mark Kitchingman for gathering the materials for this cursory review.

the transformative potential of individual cases of scientific innovation. The narrative point of view from which the breakthrough is presented may be aligned with any of the three phases: looking back to define a radical shift that has occurred and identify the breakthrough event responsible (narrative perspective associated with ‘phase 3’); or identifying a new breakthrough to assess its anticipated consequences and recapitulate the steps and factors that made it possible or contesting a breakthrough claim by calling into question its transformational qualities (narrative perspective associated with ‘phase 2’); anticipating a breakthrough that has not yet occurred and describing its potential consequences (narrative perspective associated with ‘phase 1’). Scientific breakthrough narratives may thus involve—potentially controversial—evaluations of the specific types of transformation that have taken place or may be expected, as well as of the factors that have enabled such transformative moments or are likely to enable them. Which of these angles and perspectives predominates is contingent on where in the spectrum of public and specialist discourses in and around the sciences the narrative is put forward, and also contingent on the specific positioning of a discursive agent within that particular discourse. At any rate, in a toolbox of public and specialist discourses in and about the sciences, which a more comprehensive research on the narrative mediation of science might aim to establish, the scientific breakthrough narrative will need to be included as one of the prominent components.

Approaches to Breakthrough Coverage in Science Reporting and Science Journalism

The current contribution undertakes a case study in the field of science reporting in the media, examining the ‘scientific breakthrough’ coverage in leading science journals and leading news media as it relates to the coronavirus and the disease it causes in humans. Specifically, I trace the occurrence, the varieties, and the functions of the ‘scientific breakthrough narrative’ in public representations of scientific research relating to the coronavirus. I review the coronavirus coverage in science journals as well as in general journalism, drawing on the *Lancet* and *Science* magazine as well as *Nature* for the former, and on the *Guardian* and the *New York Times* for the latter. I am conscious of the limitations of this choice of media and the fact that the choice is somewhat slanted towards quality journalism. But in the polarization of the landscapes of journalism and public media that has occurred at least in the course of the 2010s, these newspapers and their media presence have also come to be identified as ‘liberal’ in outlook—an outlook that has been contested as biased by public voices classified as ‘very conservative’ or right-wing, corresponding to a new division of the public sphere that has emerged or at least become considerably less marginal during the past decade or so. The mediated voices catering to this kind of counter-public are not represented in my sample, nor, indeed, are non-Western media channels repre-

sented, resulting in a narrative that privileges US-American and Western European research and coverage. Both absences must be acknowledged as a limitation of the current sample of discourse, to be remedied in the course of future research. This is especially true for the question to what degree the course of breakthrough debates in science journalism and the leading media may have been affected by the pressures exerted through the existence of these other media and discourses.

The following guiding questions will help orient the analysis: How have scientific breakthrough narratives been part of the public representation and public perception of the Covid crisis? Which findings, events or developments precisely are being designated as 'breakthroughs' at a given point, what backstories are presented and what future consequences are anticipated? Who draws on this narrative pattern in discussing the design, the results, and the developments in scientific research relating to the coronavirus? Which of the voices and players in this field propose or rely on them? Which call them into question? And more generally: What are the discursive contexts in which the narrative pattern is employed, in what variations does it occur, and what functions are associated with it in each context?

My contribution will focus chiefly on the first year of the pandemic. This choice is based on the evidence gathered through searches of the selected media for the years 2020 and 2021, relying on the search engine offered by each of the media, and for the terms 'breakthrough' and 'Covid' or 'breakthrough' and 'corona.' All in all, the material returned by that search is not extensive. It yielded around 60 results for the year 2020, in all four media, distributed somewhat unevenly across the timeline and the different media, suggesting that breakthroughs remain a special and exceptional concern, rather than the day-to-day business of science reporting. The amount is still significantly higher than the number of items found for the following year, when breakthrough coverage in terms of scientific discoveries played a decidedly minor role (while the rather unrelated problem of 'breakthrough infections,' infections suffered by persons who had been vaccinated, became a matter of concern). I will return to the question of distribution and frequency of breakthrough references in more detail below.

It must be stressed that the material and its analysis cannot claim to go beyond the character of a probe. All quantitative statements will need to be taken with a pinch of salt, given the fact that digital searches through each of the four media come with certain limitations. I suggest, nevertheless, that the patterns identifiable even in this limited material are substantial enough to warrant further and more extensive research into the occurrence and the functions of the 'scientific breakthrough narrative' in the context of public representations of science, whether employed by scientists, journalists, academics, or politicians or, indeed, in the context of literary discourse.

Approaches to the “Intra-Relationship Between Normal Science and Normal Science Reporting”

Joan Haran and Jenny Kitzinger’s “Modest Witnessing and Managing the Boundaries Between Science and the Media” (2009) is particularly helpful in establishing a backdrop for the current analysis. The authors examine the ways in which the media, both general and scientific, were handling the claims of having achieved a breakthrough in the cloning of humans put forward by South Korean geneticist Hwang Woo Suk and his international team of collaborators. They trace the steps from the excitement of the initial announcements to the subsequent exposure of these claims as fraudulent through the work of South Korean investigative journalists, aided by whistleblowing members of Hwang’s team. The paper does not explicitly engage with the concept of ‘breakthrough,’ but the incisive analysis of the interrelations between scientist researchers, policy makers, scientific journals, science journalism as well as general journalism, which the authors demonstrate in their analysis of both the initial enthusiastic coverage and the later debunking of Hwang’s work, will be helpful in observing breakthrough discourse in coronavirus research reporting.

Haran and Kitzinger effectively demonstrate “how science journalism and news reporting routinely depends on official sources and how science correspondents often have an investment in narratives of scientific progress” (2009, 647). In discursive practice, these “mutually reinforcing connections” (2009, 646) extend across the range of scientists’ specialized arenas of publication and exchange via the leading science journals and leading public media. In the latter, scientific developments of a particular significance will be reported not only in the ‘science sections’ but also in the main sections, resulting in “an investment [on the part of science journalists] in a story that will get their byline on the front page” (2009, 647).

Haran and Kitzinger’s account highlights, at the same time, that this “intra-relationship between normal science and normal science reporting” (2009, 647) is routinely disavowed. In the public perception, the role of science journalism—in its different degrees of specialization and authority—for the validation and public positioning of scientific work tends to be overlooked. The public discourses thus appear to seek to establish a reductive picture of their own function, as mere observers and transparent media offering windows, as it were, on the work done by scientists in specialized seclusion. Arguably, this amounts to an implicit refusal to acknowledge the interrelationships between the spectrum of players from scientists and scientific institutions, funders, and policy makers, via major (peer-reviewed) science journals to the different types of science reporting in the wider media, and to critically examine the impact and effects of these discursive constellations both on the public perception of science and on the sciences themselves.

Although Haran and Kitzinger do not explicitly problematize the concept itself, it may be no coincidence that they choose the example of an ostensible ‘scientific breakthrough’ for their case study. The breakthrough appears as a central figuration drawing public attention to the work of scientists. It not only takes a prominent position in the public presentation and presswork of scientific institutions but no doubt contributes to shaping the practice of science itself, and perhaps to shaping the frameworks and conditions within which scientists’ research continues to be devised, carried out, documented, and assessed.

Two inferences from Haran and Kitzinger’s account of the “intra-relationship between normal science and normal science reporting” (2009, 647) appear especially relevant for the present context. The first of these concerns *the relationship between science and the public*: instead of conceptualizing science as divided into a more or less hermetical inner world of specialists on the one hand and a public arena of science reporting on the other, it is more realistic to envisage for each particular science report a spectrum of interrelated positions which includes

- a range of *scientists’ voices*, including the main research scientists, team ‘members and collaborators from other institutions (national or international), and scientists not involved in the research,
- *institutional voices*, such as speakers on behalf of research institutions, funding bodies, and science policy bodies,
- *science journals* (peer-reviewed) carrying scientific papers, but also press releases and news and opinion sections,
- *science journalism*, science sections of established media (newspapers, etc.),
- *political journalism*, with particularly salient science coverage in the context of general news, with exceptional achievements being reported on the ‘frontpage,’ and
- *popular journalism*, celebrating particular scientists and covering backstories and personal interest angles.

Not all of these positions will be visible in all cases, but the reporting and the establishing of the significance of scientific results is an effect of the interplay of these several agents, rather than a purely scientific process which is simply being relayed to a wider public by the media.

The second point to be drawn from Haran and Kitzinger’s account concerns the specific status of breakthrough narratives in relation to ‘normal science.’ The idea that scientific breakthrough narratives are one of the elements in the connections between ‘normal science and normal science reporting’ adds a specific angle of interest to an examination of the incidence of breakthrough discourse under the conditions of the COVID-19 pandemic, since the pandemic creates a situation that in the eyes of some scientists no longer fulfils the conditions for the practice of ‘normal

science.' On March 25, 2020, a group of nine scientists from research institutions across Europe and North America published a jointly authored blog post in which they claimed that the beginning pandemic should be classified as the latest instance of a situation to which the operations and procedures of 'normal science' were no longer applicable. Instead, they argued, the situation created by the COVID-19 pandemic should be conceptualized in terms of "Post-Normal Science (PNS)"—a term originally coined by two of the nine authors (Funtowicz and Ravetz, 1993), and defined by them as a "new understanding of science for situations 'when facts are uncertain, stakes high, values in dispute and decisions urgent'" (qtd. in Waltner-Toews et al. 2020).

Haran and Kitzinger's work thus helps sharpen the focus of the following analysis in two specific respects. First, it enables a clearer recognition of the constellations of science reporting and science journalism and of their role in mediating the yields of scientific research and in shaping the public perception of scientific innovation. Second, by extending their proposition of a correlation between 'normal science' and 'normal science reporting' to explicitly include the paradigm of the scientific breakthrough narrative, a question arises regarding the role of scientific breakthrough narratives under conditions of 'post-normal science,' or more specifically: about the role of scientific breakthrough narratives under post-normal social conditions that affect the frameworks under which, in other circumstances, 'normal science' is practiced.

It might then be that both aspects stand in a correlation. Being positioned at the interface between science and society, or more precisely between the specialist discourses of the sciences and the wider social discussion in public media, the study of scientific breakthrough narratives might shed light on the question not only of the mediation of science through public media but on the co-production of scientific breakthroughs through an interplay of specialist and public voices. How do the pressures, crises, and controversies in and among different sections of the public sphere connect to, and perhaps impact, the monitoring and critical assessment of scientific breakthrough potentials within the specialist arenas of scientific discourse? How do they affect the various dimensions of specialism—the interplay between the authority of knowledge and expertise on the one hand, and the principal openness of all scientific insight to further debate and revision or falsification, an interplay embodied in the peer review process, on the other? And how do they come into play in the complex public arena where controversy and the establishment of voices of authority in leading media intermingle, where multiple interfaces exist between the specialist discourses and the public arena listed above, the dimensions of public outreach—comprising a journalistic ethics of verification and responsible journalism—and at the same time an openness to political debate, positioning, and disagreement? Haran and Kitzinger have highlighted how the dimensions of specialism and of public remediation come together in the production of the

leading and validated science of the day. By focusing on the co-production of validated cases of scientific innovation under conditions of the pandemic, the material may also provide insights into the possible functioning of scientific breakthrough narratives in the contested discursive territory of ‘normal science’ vs. ‘post-normal science,’ of scientific practice and its multiple discursive remediations under the decidedly post-normal conditions of the COVID-19 pandemic.

2020: A Year of Breakthrough Claims and Narratives

My review of the breakthrough coverage in leading media of science reporting shows not so much a clear-cut chronology of separate phases but rather a succession of distinct tendencies and prominent positions with certain chronological overlaps. Nevertheless, the dates as well as the sites of publication have a bearing on the trends I seek to highlight. For this reason, I have slightly adapted the author-date system of recording quotations to make both the dates and sites of publication instantly visible.³ It will be seen that the narrative dimension linked to individual breakthrough claims may be very sketchy in some cases and quite elaborate in others. My account of the material will take note of this as appropriate.

End of the Year/End of the Decade Reviewing: Illustrating a ‘General Breakthrough Appetency’ in ‘Normal Science Reporting’ (December 2019–January 2020)

To set the background for the following case study, I will begin by looking at the situation just before the virus became a major focus of public attention. A glance at ‘normal science reporting’ around the end of 2019 provides a useful insight into breakthrough discourse under conditions of normal science and under ‘normal’ societal conditions. It can serve as a foil to the ensuing analysis of the evolving situation once the virus begins to dominate not merely science reporting but the general journalistic coverage. For these reasons I start by exploring the scientific breakthrough narrative in the context of customary reviews of the major events and developments of the year in these media.

End of the year reviews are a regular element in all fields of journalistic coverage. In late 2019, they were often extended into ‘end of the decade’ reviews. Science journalism is no exception to this practice, nor is this limited to the public segment, the

3 In addition to the last name of the author and the exact date of publication, I include a brief reference to the site of publication (*Guardian*, *NYT*, *Nature*, *Science* mag., *Lancet*). This will allow the reader to keep track of the temporal dynamic of the individual voices and contributions without having to turn to the bibliography in each case.

science sections of general media. Leading science journals featuring peer-reviewed original research participate in this kind of reporting as well. *Science* magazine has in fact offered an annual ‘breakthrough prize’ since the mid-1990s, and at the conclusion of each year crowns the winner of this prize, along with nine runners-up, which are also presented and lauded, though more briefly. *Nature* does not award a prize, but the final issue of 2019 provides its review of the “scientific events that shaped the decade.” The pronouncements of both *Science* and *Nature* are invariably reported in the science sections of leading general media.

In its review, *Nature*’s editorial also looks ahead to the coming decade, declaring, “The 2010s saw breakthroughs in fields from gene editing to gravitational waves. The coming decade must focus on climate change.” It goes on to detail, “Scientific and technological innovation has always created social and economic transformation. But the past decade showed, as few others have, the speed and scale at which such change can happen. If it continues at the present rate, the shape of the next ten years—from information technologies to applied bioscience, energy and environment—looks ever more contingent on the discoveries made in that time” (NN, *Nature*, 12/19–26/2019, 337).

I have quoted this passage for two reasons. First, it exemplifies the suggestion presented above about the functional dimension of the scientific breakthrough narrative: the proposition that scientific breakthrough narratives are fundamentally concerned with the transformative dynamics of scientific innovation is posited here as a truism. A second point is illustrated by this passage by implication: the public discussion of science—in which *Nature* is one of the most prominent voices and platforms—has the role of monitoring the work of scientists in order to single out those events in science to which can be attributed the potential of a transformative dynamics of this kind. Science reporting and science journalism need to be on the lookout for the scientific breakthroughs that are likely to ‘change the world.’ In this capacity, they will adopt all of the various points in the time scale we have identified as implied in the scientific breakthrough claim. They recapitulate the major breakthroughs of the (recent) past, from a point-of-view where their status as breakthrough is ascertained, even if not all of their implications may have become clear. They speculate about the areas where future or imminent breakthroughs will occur or are desirable, about the factors that may potentially bring them about, and about the effects (and possible benefits) that may ensue. And of course, as part of their day-to-day business, they will monitor, relay, and critically assess the breakthrough claims that come to their attention through the various relevant channels.

Early Pandemic Science Reporting: ‘Breakthrough Hesitancy’ (February–May 2020)

Breakthrough discourse is rare, albeit not completely absent during the initial months of the pandemic. However, it is accepted as a given that without a scientific breakthrough, there are no prospects for a swift return to pre-pandemic life. Remarkably, the dominant note in relation to breakthroughs is a decided skepticism. Writers express their reservations and express warnings against potential misguiding of public expectations both through the use of the label and the kinds of stories frequently associated with it. A writer in the *Lancet* warns very early on against the mistaken perceptions of scientific processes and against the misguided expectations created by certain versions of publicized breakthrough stories (Harmann, *Lancet*, 03/07/2020). A writer in *Science* magazine expresses his hesitation regarding breakthrough claims made in press releases of a particular scientific institution which are not backed up with relevant scientific detail: “The word ‘breakthrough’ was thrown around,” writes Derek Lowe, arguing that such an announcement “is best met with a shrug until more details are released” and cautioning readers against unsubstantiated news flashes: “We can expect more announcements of this type in the near future, I would think” (Lowe, *Science*, 05/06/2020).

At the same time, writers articulate a fundamental conviction that any effective strategy to end the pandemic, or at least to end it quickly, would require a scientific breakthrough (e.g., Bokar-Lindell, *NYT*, 04/07/2020). This is accompanied by what might be described as a shift in the ‘chronopolitics’ of breakthrough coverage: a veritable ‘breakthrough hesitancy.’ Next to no mention is made of any past breakthroughs, while instead there is a combined attention to possible future breakthroughs—which currently are nowhere in sight—and a decided cautiousness regarding any breakthrough claims that might emerge from different sources. In addition, there is a general consensus on the areas in which such a breakthrough might be possible: the search is for different substances for treatment, possibly involving the use of antibodies (Lowe, *Science*, 05/06/2020), and, more remotely, the possibility of a vaccine (Bokar-Lindell, *NYT*, 04/07/2020). The emphasis, however, remains on stating that no breakthrough in any of these areas appears imminent to any qualified observers.

In parallel, a limited but promising potential for breakthroughs is identified outside these classical areas of scientific research. The *Lancet*, for instance, reports on the use of digital means for monitoring the emergence and spread of what at this stage was still referred to as an ‘epidemic.’ The article reports on work published on February 20, 2020 (Sun et al. 2020), whose aim was to “put together a line list of suspected, probable, and confirmed individuals on the basis of working criteria of the respective case definitions”: “This line list would allow for quick preliminary assessment of epidemic growth and potential for spread, evidence-based determi-

nation of the period of quarantine and isolation, and monitoring of efficiency of detection of potential cases. Frequent refreshing of the line list would further enable real-time updates as more clinical, epidemiological, and virological (including genetic) knowledge become available as the outbreak progresses” (Leung and Leung, *Lancet*, 02/20/2020, e156).

The contribution analyses the currently existing difficulties and determines the conditions that would produce ‘a breakthrough’: “We surveyed different and varied sources of possible line lists for COVID-19 (appendix pp 1–4). A bottleneck remains in carefully collating as much relevant data as possible, sifting through and verifying these data, extracting intelligence to forecast and inform outbreak strategies, and thereafter repeating this process in iterative cycles to monitor and evaluate progress. A possible methodological breakthrough would be to develop and validate algorithms for automated bots to search through cyberspaces of all sorts, by text mining and natural language processing (in languages not limited to English) to expedite these processes” (Leung and Leung, *Lancet*, 02/20/2020, e156).

But even in this case, the point is to assert that a breakthrough has not yet happened. The work by Chinese scientists discussed in the article does not constitute a breakthrough in itself. It just enables speculation about what a “possible methodological breakthrough” might look like. Even here, the predominant note is one of caution and patience, since a decisive breakthrough does not appear to be in sight.

The sole instance where a certain development is actually characterized as a breakthrough concerns the question of how the scientific research into possible treatments or means of prevention is organized. The ‘breakthrough’ consists of a novel way of organizing additional funding for the WHO’s urgent Covid response while ensuring the WHO’s continued independence from the particular interests and agendas of any of the donors: a crowdfunding mechanism, running through “the UN Foundation, in the first instance,” where “funding from all donor sources (individuals, companies, and philanthropies) is comingled when disbursed to WHO for WHO to put to urgent use” (Usher, *Lancet*, 03/28/2020).

To sum up, in these early days of the pandemic, it is remarkable that the term ‘breakthrough’ is very nearly absent from science reporting in relation to the coronavirus in the *Guardian* and the *New York Times*. The fact that the science journals (*Science*, *Nature*, *The Lancet*) predominantly express reservations or qualifications about most breakthrough claims reported elsewhere is not addressed in the leading general media. The few cases where breakthroughs are mentioned in relation to the pandemic underline a consensus that any effective strategy toward ending the pandemic would require the occurrence of a scientific breakthrough. At the same time, however, all writers assert that no chain of events appears to be discernible that might be confidently claimed to become part of a scientific breakthrough narrative.

Monitoring Therapeutic Breakthrough Claims (May–July 2020)

By May 2020, the term ‘breakthrough’ begins to pop up in discussions of possible treatments. There is a succession of reports, from different sources, about the possibility of effective treatments of COVID-19 in its different manifestations. Both science journalism and the leading science journals see their role not only in reporting these claims but also in contextualizing and critically assessing them. The treatments whose effectiveness is assessed in this context are hydroxychloroquine and coronavirus antibody therapy, then Dexamethasone in contradistinction to Remdesivir, and later an interferon booster. Gradually, the journals begin to display a readiness to engage in principle with the possibility that trials may reveal the effectiveness of new or existing medication for treating COVID-19 in one of its manifestations. At the same time, however, the pattern noted by Haran and Kitzinger, according to which the public reporting and the wider public echo wait for their cue, acting only after validation and endorsement of breakthrough claims by the leading science journals, appears to come into disarray in several ways.

The earliest candidate, hydroxychloroquine, is proposed and retracted in quick succession in the *Lancet*, with apparently no wider coverage in relation to breakthrough claims. On May 22, 2020, the *Lancet* carries a study on possible beneficial therapeutic effects from “Hydroxychloroquine or chloroquine with or without a macrolide.” The study takes a very cautious stance and refrains from recommending the substances for treatment. It never comes close to categorizing the treatment as a breakthrough but quotes in passing an earlier article by Chinese scientists in which this treatment is described as a “breakthrough” (Gao et al. 2020). Within weeks, however, the *Lancet* publishes a retraction even of this cautious stance, in which three of the four original authors cast doubt on the reliability of the data source for their article, which had not been made accessible to them or to independent reviewers, and by implication on the reliability of their fourth co-author (Mehra et al., *Lancet*, 05/22/2020; Mehra et al., *Lancet*, 06/04/2020).

The retraction in the *Lancet* does not receive any immediate coverage as a case of an unsubstantiated breakthrough claim. In fact, it comes after, rather than before, lively and controversial public debates and controversies about the therapeutic values of the substance. In early April 2020, the *Guardian* already covers an extensive account of how political leaders including then-US president Donald Trump had endorsed the taking of Hydroxychloroquine on the strength of the possibility that it might have preventive or therapeutic effects in relation to COVID-19. While scientists warned that the study on which these claims were based were not reliable, the claims were promoted by US media outlets such as Fox News, conspiracy theorists, and influential personalities such as Elon Musk. Even without any scientific proof, the *Guardian* reports, “[a]n 85-year-old [malaria] medication was well on its way to becoming a Covid-19 meme”: “The scientific debate over the drug was drowned out

by a decidedly partisan one" (Wong, *Guardian*, 04/07/2020). Without any prominent deployment of breakthrough discourse, the account which the *Guardian* gives of the spread of an unproven therapeutic claim speaks to the pressures which the pandemic appeared to be putting on the long-established patterns of what Haran and Kitzinger have termed the "intra-relationship between normal science and normal science reporting" (Haran and Kitzinger 2009, 647). The emergence of an 'alternative public sphere' based on a principle of distrust and suspicion against the liberal democratic public sphere represented by the leading media analyzed here, which had in many ways preceded the pandemic, clearly contributed to these pressures. It does not, however, appear to be the only factor responsible for the observable variations in breakthrough coverage.

It does not, for instance, appear to produce the next case, which is a report by the Press Association, relayed in the *Guardian*, announcing that a "[b]reakthrough [is] close on coronavirus antibody therapy" (06/07/2020). Whereas earlier claims relating to the effectiveness of antibody treatments had been greeted with skepticism in science journals (as indicated above, in this case, the *Guardian* relays the report without any caveats and without waiting for approval by the science journals. The reason must remain a matter of speculation, though one possible explanation could be the fact that in this case the claim originates with scientists working for the British Swedish company AstraZeneca, which may appear as a trustworthy source in a British context, as well as carrying particular interest to a British readership.

Dexamethasone is the treatment option that creates the widest echo and whose breakthrough claim is reported widely and without reservations. The 'breakthrough' is covered simultaneously by *Nature* and *Science* on June 16, 2020 (Ledford 2020a; Kupferschmidt 2020), and in an article in the *Guardian* the following day (Boseley, *Guardian*, 06/17/2020). The discovery of the treatment is immediately claimed as a success of British science in press conferences by the British government (specifically Prime Minister Boris Johnson and Health Secretary Matt Hancock, quoted in *The Guardian's* live blog, Sparrow and Perraudin, 06/16/2020).

The report in *Nature*, echoed in the *Guardian* on the following day, details the findings and specifies the beneficiaries. The effectiveness is greatest among "critically ill patients on ventilators" among which group the drug is reported to have lowered mortality by 33 %, reducing the percentage of deaths from just above 40 % to just under 30 %. The article goes on to identify a second group of beneficiaries: "Those who were receiving oxygen therapy but were not on ventilators also saw improvement: their risk of dying was reduced by 20 %." It also points out that the treatment makes no difference to all other patients: "The steroid had no effect on people with less severe cases of COVID-19—those not receiving oxygen or ventilation." The report goes on to quote "a chief investigator on the trial," "Peter Horby, an infectious-disease specialist at the University of Oxford, UK," who described the findings as "a major breakthrough," and then contrasts the results with those relating

“the only other drug shown to benefit people with COVID-19 in a large, randomized, controlled clinical trial,” “the antiviral drug remdesivir”: “Remdesivir was shown to shorten the amount of time that patients might need to spend in hospital, but it did not have a statistically significant effect on deaths” (Ledford, *Nature*, 06/16/2020).

The attitude taken in *Science* magazine with regard to the Dexamethasone trial is somewhat more reserved. *Science* holds back its own assessment: “Although full trial data have not yet been released, several outside commentators hailed the result as a ‘breakthrough’” (Kupferschmidt, *Science*, 06/16/2020). The article then details the mode of operation and the statistical effects of dexamethasone treatments on the different groups of patients, and it also includes a plea of urgency to account for the fact that the recommendation was publicized before the trial data backing up the recommendation had been consolidated and finalized for publication. Once these results are made available in preprint (Horby et al. 2020), *Nature* publishes a revised version of its earlier article (Ledford 2020b), which includes more detailed information but does not use the term ‘breakthrough’ any longer.

In July, again without any precedent in the leading science journals, the Guardian reports on a further “‘major breakthrough’ in the treatment of coronavirus patients” achieved by “[t]hree professors at the University of Southampton school of medicine” who had established a company to produce an “interferon beta booster” whose share price had now suddenly risen significantly. A study of “101 people” given “a special formulation of the professors’ interferon beta drug, called SNG001, delivered directly to their airways via a nebuliser” show significant positive effects compared to a placebo group: “the odds of patients developing a severe version of the disease were reduced by 79 %, and their breathlessness was also ‘markedly reduced’, the company said” (Neate, *Guardian*, 07/24/2020). This breakthrough claim finds no wider echo, however, and the ‘special formulation’ of the drug appears not to be ready for general use.

The public coverage of these several ‘major breakthrough’ claims displays some notable variations to the pattern of ‘normal science reporting’ described by Haran and Kitzinger, where the general science journalism follows the cue of validation by reports in science journals. While the leading media of science reporting clearly embrace their role of ‘breakthrough monitoring,’ the pattern according to which they do so appears to be susceptible to variation on account of a range of factors. A successive ‘breakthrough appetency’ may most clearly be discerned in relation to Dexamethasone. But even here, there are indications that initial responses are calibrated not simply in accordance with, and in consequence of, the positions emerging from the leading science journals. British media of science reporting appear to display a greater readiness to credit and relay breakthrough claims made by British scientists and institutions, as the respective responses by *Science* and *Nature* demonstrate, and evidenced by the relative prominence of breakthrough coverage in the *Guardian* as compared to the *New York Times*. National proximity is also in evidence in the case

of the AstraZeneca antibody treatment. The ‘major breakthrough’ claim relating to Synairgen’s interferon beta booster is reported by the *Guardian* on the strength of the scientists’ company’s press announcement, and without the precedent of a report to that effect in a science journal. National proximity may be a factor here, too, as the *Guardian* reports on a breakthrough claim mounted by scientists from the University of Southampton. And it may even become a factor in reporting on the ‘major breakthrough’ claim relating to Dexamethasone, which is widely relayed. Still, it appears that British science media show a greater readiness to embrace a claim proposed by British scientists, even if the intensity of the initial breakthrough claims is not sustained and in fact retroactively toned down in *Nature*.

The controversies concerning the effectiveness of hydroxychloroquine do not appear to provide the pattern for all the variations which have just been listed. In fact, it appears that they are barely touched by breakthrough discourse. Instead, the tentative (and as it turns out sometimes premature or inconsequential) reporting on different therapeutic breakthrough claims appears to produce variations that speak for a growing if still cautious ‘breakthrough appetency,’ and a readiness to attribute greater credit to as yet unsubstantiated breakthrough claims calibrated by national proximity and the previous reputation of the claimants.

The leading media’s own readiness to deviate from the sequential pattern of science reporting will be toned down again in the face of a growing tendency toward the strategic adoption of breakthrough discourse by political actors in a constellation of ‘conflicting public spheres.’

‘Race for the Vaccine’ and Politicized Breakthrough Claims (July–October 2020)

While scientists across the world are working on the development of vaccines and beginning to report the results of their preliminary tests, breakthrough discourse in the public coverage of science takes on a new quality. This is in consequence of a growing tendency among politicians, notably among governments and their representatives, to mount their own breakthrough claims. Science journalists and science journals see a need to respond to these. The discussions around the scientifically unsupported claims about hydroxychloroquine as a ‘miracle cure’ were an early instance of the resulting controversial constellation, but that debate did not involve any significant dimension of ‘breakthrough discourse’ on either side. This changes in the course of the summer of 2020, as governments, and especially political actors with leanings that can be described as populist, begin to display a particular propensity towards presenting breakthrough claims, with science journalists and leading news media seeing the need for resistance.

Back in June, responding to the announcements of the results of the Dexamethasone trial, the British government, and prime minister Boris Johnson himself, had been quick to classify the results both as a breakthrough and a success for British

science. Another such claim is made in July with respect to results of early stages of vaccine trials. On July 20, 2020, the *Lancet* features a news release announcing that “British, Chinese COVID-19 Vaccine Trials Show Promise.” The article points out that “[o]ver 250 candidate vaccines are currently under investigation worldwide, with billions of dollars poured into this research,” and goes on to detail the promising results of two of these (University of Rochester Medical Centre 2020). It does not use the term ‘breakthrough’ in relation to the results reported by either the British and Chinese trials, however. On the same day, the *Guardian* reports that the British prime minister and health secretary have spoken of the British results as “a major breakthrough” (*Guardian*, 07/20/2020), but avoids endorsing it. The fact that the breakthrough claim is mentioned only in quotation marks suggests quite clearly that the *Guardian* takes its cues from science journalism while remaining skeptical of other sources. A few days later, indeed, an opinion piece in the *Lancet* will describe both the Chinese and British results as “unquestionable breakthroughs in the global response to the COVID-19 pandemic” (Horton, *Lancet*, 07/25/2020), but this assessment has not been made at the time when the *Guardian* breaks the news. As the *Guardian* reports, the UK government seeks ways for a speedier approval of a potential British-developed vaccine than would be possible in the UK under EU membership, hence the ability to bring the benefits of the vaccine breakthrough to the British people is pitched as a benefit of Brexit (see Boseley, *Guardian*, 08/28/2020).

Apart from this instance, however, the several processes of vaccine development and testing worldwide do not attract any large amount of breakthrough discourse in the leading media. In close proximity to the aforementioned report, the *Observer* (the Sunday edition of the *Guardian*) informs its readers that “the race for a Covid-19 vaccine is getting dirty” (Spinney, 08/30/2020). The article, which surveys the efforts toward developing vaccines that are underway around the world and addresses the political dimensions as well as the scientific debates around the handling of these efforts, does not employ or discuss the term ‘breakthrough’; it was only returned in the search on account of ‘breakthrough reports’ referenced in it as potentially of further interest to readers. The article details the undertones of Cold War rhetoric and imperial ambitions in the contexts of the Russian, Chinese, and North American efforts. In addition, it reports scientific disagreement concerning the proper speed in vaccine development, pointing out that considerations of urgency should be balanced against the risks contingent on the mass deployment of an insufficiently tested vaccine, and specifically reporting skepticism and debate among scientists concerning the risk of “antibody-dependent enhancement,” where the antibodies produced after a vaccine “can cause the recipient to experience a worse bout of the disease if that person becomes infected naturally later on.” It may be noted in passing that the reporting of disagreement among scientists, and coverage of the points that are here listed as controversial, will no longer play a role in the coverage of the vaccine breakthroughs at the end of 2020. The article then goes on to point out that British science

sides with those in favor of speedy processes, as the “front-running Oxford University/AstraZeneca vaccine [...] is one of a number of projects running phase 2 and 3 trials simultaneously” (Spinney, 08/30/2020).

By this time, there is a new challenge in breakthrough reporting: politically motivated but insufficiently substantiated therapeutic breakthrough claims. Most prominent among these is the announcement of “a very historic breakthrough” by US President Donald Trump, referenced already in the opening section of this chapter. The leading media see the need to resist this characterization, deploring the politicizing of scientific breakthrough claims and evidence-based decision making, while pointing out the risks that attend the “emergency use authorization (EUA) for convalescent plasma to treat people with severe COVID-19” issued by the U.S. Food and Drug Administration (Kupferschmidt and Cohen, *Science*, 08/24/2020). The *New York Times* editorial board takes a similar view, headlining “Politicizing Medical Science Will Cost American Lives” (08/24/2020), and returns to the question to further substantiate its resistance in early September (Lamas, *New York Times*, 09/02/2020).

A subsequent therapeutic breakthrough claim, mounted by the Brazilian government, is met with a summary dismissal. *Science* magazine reports, “On 19 October, the Brazilian government organized a high-profile ceremony to announce what it billed as a new breakthrough in the fight against the COVID-19 pandemic: the antiparasitic drug nitazoxanide. President Jair Bolsonaro was present, as were several other Cabinet members. ‘We are announcing something that will begin to change the history of the pandemic,’ science minister Marcos Pontes said” (Escobar, *Science*, 10/28/2020). The report is framed with a simple, decided and ironic dismissal: “Only one thing was missing from the presentation: the evidence. And when it emerged four days later, scientists were decidedly underwhelmed” (Escobar, *Science*, 10/28/2020).

Meanwhile, in reporting on the FDA’s approval of Remdesivir in October 2020, science journalism merely sees a need to return to the position of monitoring breakthrough claims. The step does not call for resistance to political interference in evidence-based scientific decisions but simply for clear statements concerning the limited benefits to be expected of the treatment. The *New York Times* quotes a medical expert who declares, “This is not a blockbuster drug. This is not some massive breakthrough. It’s a drug that appears convincingly to benefit patients, but it’s not some kind of miracle cure” (Levenson, *NYT*, 10/22/2020, updated 10/29/2020).

Validated Vaccine Breakthroughs (November–December 2020)

Starting in November 2020, news of the results of vaccine Phase 3 trials move to the center of reporting. There is never any question that the results reported constitute anything but breakthroughs, and the coverage is extensive. Beginning with widely relayed reports on the mRNA vaccine breakthroughs by Pfizer/BioNTech and

Moderna on November 9 and 10, there is constant and insistent breakthrough coverage for much of November. The *Guardian* alone has four substantial pieces in these first two days, and follows it up with another three within the next ten days. The focus is first on BioNTech, then on Moderna, and then on the science behind both of these vaccines. A piece on the future Nobel Prize winner Katalin Karikó (Kollewe, *Guardian*, 11/21/2020) demonstrates that what has now come to be recognized as a breakthrough was already achieved in 2005 and consisted in the ability to produce mRNA that did not trigger inflammatory reactions and could therefore be safely injected into humans. Two weeks after BioNTech and Moderna, the Phase 3 results reported by Oxford scientists on the AstraZeneca vaccine are also positive and are reported as "the latest breakthrough." There is additional praise for the AstraZeneca vaccine on account of its being far less expensive (US-\$3 as opposed to US-\$70 per dose) and far easier in the logistics of distribution and storage than its competitors (Boseley, *Guardian*, 11/23/2020).

The assured status of these scientific results as breakthroughs prompts far more developed 'breakthrough narratives' than had been offered with the breakthrough claims in the course of the year. There are now extensive accounts of the frequently difficult paths that led to the results. By December 6, in an article titled "The Vaccine Miracle: How Scientists Waged the Battle Against Covid-19," the *Observer* looks back over a succession of breakthroughs in 2020. The narrative begins with the "sequencing breakthrough" by virologist Zhang Yongzhen at the Shanghai Public Health Clinical Centre, who published "the genome of the Sars-CoV-2 virus in January" 2020, and moves straight on to the "international effort" in the development of vaccines, of which around 200 had been or were still in the process of undergoing clinical trials before singling out the three vaccines that had announced the successful passing of Phase 3 clinical trials in the course of November.

The type of scientific breakthrough narrative offered here is quite selective in comparison with the story of breakthrough discourse that has emerged in the course of this chapter. The article does not record the several trajectories, shifts of direction, and various players in the breakthrough debates through the course of the year, and it has little place for the controversial claims, requiring a careful monitoring, insistent warning, and even determined resistance against misleading breakthrough bids. In a field marked by contested and disputed claims, these narratives offer orientation and authority.

The vaccine results thus provide a vindication of 'normal science' and its ability to produce socially desirable outcomes, the means of shaping and transforming the shared social world in desirable ways. This perspective is prominent in the *Guardian* and *Observer* (see Kollewe, 12/06/2020; Vallance, 12/13/2020) and in *Science* magazine (see Thorp, 12/18/2020). It is true that there is close temporal proximity in the reports, resulting no doubt from the extraordinary news value attached to them. Nevertheless, and in spite of the acceleration of regular testing procedures used in some

cases, the coverage of the vaccine results as breakthroughs also somewhat restores the sequential patterns of science reporting, where the results of tests are published after peer review, and where the leading media in science reporting, beginning with science journals (*Nature*, *Science*, *The Lancet*) and continuing with the leading general media such as the *Guardian* and *New York Times*, then go on to announce the significance of the results, and endorse their character as a scientific breakthrough, reflecting on the paths by which it became possible and discussing the magnitude and quality of the transformative effects to be expected from them.

Journals can now extend a similar perspective—the idea that success is the product of patient and thorough scientific research, and this in turn will provide reliable distinctions between valid and invalidated breakthrough candidates—to the range of the successive therapeutic breakthrough claims. In the reporting of the *Guardian*, the breakthrough claims made by British scientists are given precedence. First comes a report of a further breakthrough achieved in this way by UK scientists in Edinburgh, devising ways of preserving the lives of the critically ill (Sample, *Guardian*, 12/11/2020). The news is based on a paper published in *Nature*, though the breakthrough claim relayed does not feature in that paper but is made in the investigators' press statement. Two weeks later, the *Observer* recounts the story of the identification of "breakthrough medicines that could change the course of Covid" through the means of "the world's largest randomised Covid-19 drug trial," again instituted by two Oxford scientists (McKie, 12/17/2020). The many controversial therapeutic breakthrough claims which presented cause for concern in the course of the year now reappear in their proper place, having been evaluated in large-scale randomized trials. The confirmation of the effectiveness of Dexamethasone "remains one of the most dramatically successful outcomes in the battle against Covid-19. A cheap treatment for inflammation was found to save lives of seriously ill patients while a trio of much-touted therapies were shown to have no effect" (McKie, 12/17/2020). What is vindicated with the confirmation of the breakthrough claims founded on the procedures required by 'normal science' is the confidence in the procedures of normal science, even in situations that display characteristics of 'post-normal science.'

Science magazine awards the distinction of the '2020 Breakthrough of the Year' to the new vaccines (Cohen, 12/17/2020). The accompanying article offers an extensive and differentiated breakthrough narrative that comes with a message: the vindication of the processes of normal science, even under the exceptional conditions created by the pandemic. The development of the vaccines is placed in the context of a global race, indeed a veritable imperial scramble for the vaccine that prominently includes Russian and, above all, Chinese efforts. The article is also careful to qualify the breakthrough label, emphasizing that it would be misleading to expect a swift and immediate effect and to attribute an instant transformative power to the breakthrough: "To be sure, the clinical trial results reported to date have mainly come from

glowing company press releases, not the full presentations of data that could reveal caveats. Vaccine doses will be scarce for even the wealthiest countries until at least spring, and the world's poor will surely wait longer, despite the creation of a global alliance, the COVID-19 Vaccines Global Access Facility, to increase access." In spite of these qualifications, the assurance of a validated breakthrough presents a vantage point from which the situation can be put into perspective. The difficulties have not vanished, but a position has emerged from which it will become possible to identify challenges and devise strategies to meet them: "[T]he pandemic-battered world has a long trip ahead on a steep mountain road with no guardrails. Vaccine hesitancy, manufacturing problems, and breakdowns in supply chains could botch ambitious rollouts. SARS-CoV-2 might mutate to evade protective immune responses. Vaccines might prevent disease, but not transmission, delaying the end of the pandemic. Worst of all, rare, serious side effects could surface when vaccines move from efficacy trials to entire populations" (Kupferschmidt, *Science*, 12/18/2020).

The situation in late 2020 thus seems to warrant a vantage point of interpretive authority over the state of scientific research and its implications for the urgent societal issues linked to the coronavirus crisis. It creates the opportunity to move from a situation of open controversy largely dominated by the fault lines of the political situation to a situation dominated by a clear message. A pivotal point has been found around which the details of an authoritative breakthrough narrative will continue to unfold. At the same time, the narrative recapitulation of the paths by which the breakthrough has been reached serves to validate and vindicate the effectiveness of the established modes of operation of 'normal science.'

The fact that breakthrough discourse appears to become less frequent in 2021 may well have to do with the fact that the difficulties listed here have come to occupy the practical management of the pandemic. Consequently, the '2021 Breakthrough of the Year' in *Science* magazine has no direct COVID-19 connection, but two of the 'runners-up' relate to effective medication and to antibody treatments (see Cohen 2021 and Couzin-Frankel 2021).

Conclusion

Breakthrough reporting has a complex relation to the exceptional, as the review of materials on breakthrough claims in COVID-19 research illustrates. On the one hand, the very designation marks and highlights an exceptional moment, a moment that will bring a change of perspective whose nature and effects cannot be predicted in their entirety, and which therefore require discursive evaluation. On the other hand, the occurrence of these exceptional moments is to be expected within the regular operations of 'normal science.' The fact that *Science* magazine can count on finding at least ten candidates (one winner and nine runners-up) for the award of

'Breakthrough of the Year' speaks to the fact that it may be confidently expected that there will not be a shortage of such exceptional events within the regular operation of 'normal science.'

It must be noted, however, that the question of the degree to which the steps and procedures taken in reaching the vaccine breakthroughs answer to the description of 'normal science' or 'post-normal science' is not explicitly raised in science journalism at the time. It is also far beyond the expertise of this chapter. What an examination of breakthrough discourse in 2020 does show, however, is that breakthrough discourse under conditions of the pandemic occurred in a 'post-normal' societal environment. The celebration of the vaccine breakthroughs allows the embattled public spheres, which have long been the hallmark of pluralistic Western societies, to reassert pre-eminence against the challenges mounted by populist politicians and right-wing media, and to maintain an idea of global leadership in science in the face of competition in research from other, non-Western world powers. The confident identification of the breakthrough of the year does occur in a 'post-normal' social and political setting where *stakes remain high, values in dispute and decisions urgent*, even though it looks as though facts have become somewhat less uncertain.

Scientific breakthrough narratives in this context appear to have specific functions. They maintain and confirm the generally held assumption in modern societies concerning the transformative power of scientific innovations—the assumption that societies are shaped by the ways in which they implement their advances in technology (and not, for instance, by the agency of supernatural entities, or for that matter by means of 'conspiracies'). At the same time, they provide a pluralistic space for negotiating the assessments and expectations concerning the ways in which such a transformation will take place or has taken place.

In many cases, it appears, the scientific breakthrough narrative will be consolidated in retrospect, once the event marked as 'the scientific breakthrough' has been identified and more or less agreed on, and the intermediate potential trajectories have at least started to unfold. However, the narrative itself potentially emerges already with the breakthrough claim—which may be made simultaneously with the first presentation of the results of research, in some cases even before their publication. The familiar genre features of the narrative may even be invoked before results have been achieved, or research has been undertaken, for instance in order to mobilize support for undertaking certain kinds of research.

Clearly, the pandemic has created intense public interest and intense pressures on the processes that belong to these early stages of scientific research. The evident need felt by the leading media in science reporting to monitor and manage the breakthrough discourse around COVID-19 research, their determination to resist 'hostile takeovers' but also their occasional tendency to indulge in the circulation of unconfirmed and anticipatory breakthrough claims, especially in cases of national proximity, testify to the exceptional exposure which research processes experience

under the conditions of a pandemic situation in which diffuse societal expectations are centered on science.

The decrease in ongoing breakthrough discourse in relation to COVID-19 research in 2021 appears to be contingent on the fact that the question of what constitutes the scientific breakthrough in relation to COVID-19 has been largely settled. While this question is still open, this unsettledness creates the potential for a great deal of contentiousness in breakthrough reporting, which can be exploited from many directions. This, in turn, creates the need to resist the propagation of what must be categorized as unsubstantiated and misguided scientific breakthrough narratives—as well as the danger of succumbing to the invitation to relay premature and ephemeral breakthrough claims. Once the breakthrough question has been settled, science reporting can return to its established sequential patterns and to the position of 'modest witness' (see Haran and Kitzinger 2009 above).

This return to normal science validated by the modest witnessing of science journalism in the leading media also implies a reaffirmation of that fundamental tenet, specific and perhaps exclusive to modern societies, that scientific innovation has the capacity to shape and transform society. The wider scope of projected research on the scientific breakthrough narrative will no doubt need to observe the operations and functions of that narrative in very different historical and societal settings, quite different from the very distinctive context of the COVID-19 pandemic. Similarly, the literary dimensions of this wider project on scientific breakthrough narratives would need to widen its scope beyond science in novels with contemporary settings, and will need to involve research both on historical science novels and on speculative fiction. Speculative fiction, indeed, has been considered in some of its genre definitions as precisely a type of narrative that imaginatively spells out the societal and above all the human consequences which the transformative dynamics of scientific innovation may entail. Given its pervasive spread across public and specialist discourses in and around the sciences, the scientific breakthrough narrative stands to be examined as one of the core elements in the narrative meaning-making of modernity.

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Contagious Economic Failure?

Discourses Around Zombie Firms in COVID-19-Ridden Germany and Italy

Till Hilmar, Rocco Paolillo, and Patrick Sachweh

If one walked the streets of German cities on the night of January 31, 2021, they could not fail to notice: of the 80,000 barbershops across the country, many were brightly lit that night. In a moment of public protest, organized around the slogan “Lights on—before it turns dark forever” (Henning 2021),¹ shop owners were protesting against the government-decreed shutdown of their stores, arguing that mandatory business closures had brought them to the brink of bankruptcy. A palpable sense of loss was in the air: a loss of clients and employees, as well as of the future of one’s business. In fact, Germany’s largest barber chain, Klier, which maintained about 1,350 shops and employed about 9,000 people around the country, had announced insolvency just a few weeks earlier, in December 2020. Earlier in January 2021, in Italy, restaurant owners joined square protests following the hashtag #ioApro (Masi et al. 2021), threatening to remain open despite the lockdown decree. According to a survey by FIPE (2021), one of major trade associations in the sector, in the early months of the pandemic, more than 90 % of restaurateurs interviewed experienced economic damage because of the pandemic and most had negative expectations for the future.

The COVID-19 shock hit economies around the world hard, with disparate ramifications for different groups (Altig et al. 2020). Afraid of the novel and lethal virus, people radically altered their traveling and shopping behaviors; state-induced health and social distancing requirements forced firms in customer contact-intensive sectors such as hospitality, travel, and the services to close or radically scale down their activities. Commentators soon warned that mass insolvencies were looming. A January 2021 OECD report predicted that, in some sectors of the economy, around a third of all businesses would be struggling to survive as a result of the pandemic (Demmou et al. 2021). Yet soon after the virus first hit, governments around the

1 All translations of sources in languages other than English in this section are by the authors of this chapter.

globe stepped up, devising a range of policy measures to keep businesses afloat. By spring 2021, more than 14 trillion dollars had been globally spent on pandemic relief in the form of loans, direct cash transfers, short-time work programs, or tax credits to businesses (Economist 2021; Tooze 2021).

How does the public perceive and make sense of this simultaneity of existential economic danger and unprecedented government aid to businesses? In this chapter, we explore this question by examining newspaper representations of ‘zombie firms’ in the course of the pandemic. According to definitions offered by economists, a zombie firm is a business that is de facto insolvent but is still artificially ‘kept alive’ by credit and, frequently, by taxpayers’ money (Adalet McGowan et al. 2017; Banerjee and Hofmann 2022; Caballero et al. 2008). In fact, from the perspective of mainstream economics, zombie firms appear as illegitimate in a variety of ways: they are unprofitable, indebted, state-supported, and potentially dangerous because their existence is assumed to negatively affect the economy as a whole. However, when the pandemic hit, these ‘dangerous’ corporate actors were suddenly ubiquitous. Surprisingly, perhaps, before announcing insolvency, Klier, the German barber chain, was labeled a zombie firm in newspaper reports. In Italy, some restaurant chains could be quickly identified as zombies in public discourse.

The notion of the zombie firm, we suggest in the following, is a cultural trope, rich in fictional references to movies, literature, and broader repertoires of popular culture (e.g., Becker et al. 2021; Wald 2008; Lauro 2017b). It affords a powerful distinction between the ‘healthy’ from the ‘sick’ elements of the economy—and this, we argue, explains the political leverage of the metaphor in public discourse during the COVID-19 crisis. We trace the debate around zombie firms during the COVID-19 pandemic in two societies, Germany and Italy. Exploring a corpus of 203 newspaper articles (105 in Germany and 98 in Italy) published in four newspapers in each country between 2020 and 2022, we employ computational social science methods and a supplementary qualitative analysis to examine how this discourse evolved during the pandemic. Our findings reveal that the trope is variously used, from the left and the right, to delineate and negotiate normative ideas about the legitimate relationship between the state and market actors. As a “folk economic” (Swedberg 2018) theme sustained by fictional references, we observe that the zombie firm trope occupies a central place in the political-economic imagination emerging from the COVID-19 pandemic.

The Zombie in Popular Culture

The zombie is a hugely popular figure in mass media and culture. Ever since George A. Romero’s movie *Night of the Living Dead* (1968), a plethora of movies, novels, comics, and video games have been released that feature zombies or are set against the back-

ground of the zombie apocalypse (imagined as a kind of ultimate battle between humans and zombies). AMC's television series *The Walking Dead* (2010–2022) is among the most successful productions of its kind ever released. As a cultural theme, zombies are closely associated with pandemics and viral dangers: they are infected with a mysterious pathogen and are highly contagious, forcing humans into a struggle for survival during which various social pathologies manifest and become apparent—this is the original theme of *Night of the Living Dead* (Molpeceres 2017).

Zombies are part of a broader set of fictional “outbreak narratives” (Wald 2008), stories that revolve around the spread of dangerous ideas or practices that gradually evolve into a full-blown threat to the cohesion of society. Such stories are often charged with racialized connotations. Although the meanings of the zombie trope have dynamically evolved to reflect the particular cultural, social, and political parameters of historical crisis situations, there are some qualities that are specific to it. First, the zombie, more of a human-like figure than other kinds of monsters, is associated with a condition of sickness and physical impairment. A complex pathogen is the source of this disease; therefore, zombies are subject to scientific scrutiny. Second, zombies are imagined as hungry, an “emphasis on consumption, on eating flesh” (David McNally qtd. in de Bruin-Molé 2021, 161) has been a recurring motif in their representations. Zombies are also associated with the idea of cannibalism, which adds the notion of a total loss of self-restraint and control to the association with consumerism. In light of these negative qualities, a dominant theme in the canon is that of zombies as a “killable horde” (de Bruin-Molé 2021, 162) of mindless, soulless creatures that are devoid of individual personality and can justifiably be killed. Scholars argue that the zombie trope has long served as a political delineation of ‘us’ vs. ‘them’—that it has, subconsciously, represented the ‘other’ in the Western, liberal political imagination with its more or less latent claims to colonial and racial superiority (de Bruin-Molé 2021; Lauro 2017a).²

Moreover, the zombie trope has also been applied to capitalist economies. “[T]he zombie,” notes Sarah Juliet Lauro, “has been a very useful figure for thinking through the workings of neoliberalism in our era” (2017a, xiii). Its associations with worker alienation and exploitation, harmful and excessive consumerism, as well as more broadly, with crisis and the breakdown of order in society, make it a powerful symbol in ‘folk economic’ reasoning. In its earliest representations, the theme was associated with slave labor in the context of the Caribbean plantation economy (Lauro 2017a, x). In the meanings that circulated during the first zombie boom following

2 Megen de Bruin-Molé (2021) argues that the zombie theme has become more nuanced, and that next to the “killable horde,” there is also the genre of the “friendly” zombie as the therapy-intensive “chronically ill” person, as well as the most recent type of an uncannily liberated, “mindful consumer.”

George A. Romero's movie in the late 1960s, the themes of worker alienation, passivity, and conformism also occurred. Zombies were a reminder that capitalism inflicts damage on individual subjectivity, producing a workforce of listless, roaming corpses who are estranged from their inner selves. In the wake of the Financial Crisis of 2008, which saw an impressive boom in zombie representations (Drezner 2014), a different, more neoliberal connotation of zombie subjectivity moved to the fore: now, the zombie tends to represent a set of deficiencies on the part of individual or corporate economic actors who are not able to perform well economically, who are seen as enfeebled and unproductive. The disease that afflicts them seems to obstruct them from regaining their innate economic prowess. Zombies hence symbolize a threat to what is perceived as the natural order of the economy.

This arguably constitutes a transition from more left-wing to more right-wing dominant political associations of the trope (for a similar argument, see Vint 2017). In the latter, the idea of a zombie apocalypse as a catastrophic, end-game scenario takes center stage, as “the rise of the zombie metaphor both reflects and reifies collective perceptions of societal breakdown” (Drezner 2014, 839). Although this theme has sometimes also been invoked by public health authorities and disaster communication experts, it has frequently been summoned by the political right to stir distrust in government institutions such as the health care system and law enforcement. In the far right-wing interpretation, the source of this malaise is a kind of societal enfeeblement. In a manner that is reminiscent of Albert Hirschman's (1991) perversity thesis, this framing of the zombie apocalypse scenario regards the welfare state as the cause of moral and societal collapse—social policy, in this imagination, is the source of the zombie disease—and thus resonates well with libertarian rejections of ‘big government.’

The Zombie Firm as Seen by Economists

At a first glance, ‘zombie firm’ appears to be a rather peculiar term that is mostly used by economists. Despite originating in the field of economics, the concept has been used in the mass media. In the decade after 2010, the use of this term in international newspapers and other news outlets has increased by a factor of 12 (see Banerjee and Hofmann 2022, 3). ‘Zombie firm’ refers to a corporate entity, not a natural person. But this does not necessarily lessen the power of the metaphor. We can assume that, as part of a cultural discourse, some characteristics of zombie subjectivity are transferred onto corporate actors.

Economists agree that zombie firms are a problem. They define them as the opposite of ‘healthy’ firms (Andrews and Petroulakis 2019, 1; Caballero et al. 2008, 1943; Adalet McGowan et al. 2017, 3). Zombie firms are regarded to have negative economic effects because they drain resources and investment from healthy firms and thus

harm macroeconomic growth. Their number has increased in the past few decades. According to Ryan Banerjee and Boris Hofmann, the number of zombie firms “rose from about 4 % of all listed firms in the mid-1980s to as many as 15 % in 2017” in fourteen advanced economies (2022, 4). Scholars also concur that the scope and scale of corporate debt, as a phenomenon of macroeconomic concern, has increased over the past few decades.

However, there is disagreement over how to define these firms in the first place: are they merely underperforming in their day-to-day business (in terms of their operating profit); are they indebted and also unable to pay off interest rates; or do they also need to be lowly evaluated on the stock market in order to count as a zombie? Equally important, how long is the time period during which a firm must be in distress in order to count as a zombie? In some definitions, this is not specified, while in others, a measure of two (Banerjee and Hofmann 2022, 6–7) or three (Andrews and Petroulakis 2019, 12) consecutive years of distress is proposed. Evidently, this is a consequential issue, as a firm might perform poorly in one year but thrive in the next. In fact, the (official) number of bankruptcies did not rise during the first two years of the COVID-19 crisis thanks to extensive relief programs (Djankov and Zhang 2021). Moreover, within economic discourse, there is an interesting variation in terms of how the causes of ‘zombification’ are described: while some economists foreground the role of the state as *too generous* via those market actors in this respect (i.e., in the form of too extensive subsidies after the Financial Crisis; see Adalet McGowan et al. 2017), others posit that it is the relative feebleness of state action—hampered by financialization and weak regulation of the banking sector—that drives these processes (Schularick 2021).

In one sense, then, zombies are seen as the ‘bad apples,’ the opposite of good and healthy firms based on a set of individual characteristics; in another, they are viewed as a symptom of a larger process, of a deeper problem that pervades the economy. In combination, these two competing perspectives raise the essentially unresolved question of who is to blame for the zombification of these corporate actors: the state or the market? The discourse around what constitutes healthy firms and a healthy market environment—and what the role of the state should be in securing such an environment—points us to a fundamental tension between a more leftist and a more rightist interpretation of the zombie theme and, in our case, the zombie firm. This difference between left- and right-wing viewpoints likely also informs the media debate on this topic. We therefore take it up as our guiding analytical distinction in the remainder of this chapter.

Comparing the German and the Italian Debates Around Zombie Firms

We study the German and the Italian debate on zombie firms between 2020 and early 2022 comparatively, investigating the representation of the topic in major newspapers of opposite political leaning. When the pandemic hit, both Berlin and Rome launched an impressive set of emergency government aid programs in order to save businesses. They mobilized between 40 % and 50 % of the respective 2019 GDP in fiscal relief to this end, the two most extensive fiscal responses among all OECD members (Anderson et al. 2020; OECD 2020, 27). Notably, the two societies also confronted the economic shock of the pandemic on very different grounds. In 2019, Italy's public debt stood at around 140 % of the GDP, while that of Germany at a mere 60 %.³ As tourism, restaurants, and interpersonal services play a major role in the Italian economy, the country was hit particularly hard by the economic downturn. Germany, with its export-oriented industrial model, was able to weather economic stress much better (OECD 2020). Although estimates differ, the share of zombie firms in the Italian economy was merely slightly larger than in Germany before March 2020.⁴

We are interested in how the relationship between state and economy is variously represented by invoking the zombie firm trope in public discourse, and the comparison of the German and Italian cases provide an especially suitable framework to examine this question. On a discursive level, in these two societies, the legitimate role of the state in the economy is widely assumed to be very different. After the Financial Crisis of 2008, this conversation was dominated by the German *debt hawk* position. In the German political class as well as the public, the image of balanced state accounts (the infamous 'schwarze Null') has long had great political traction (it was closely associated with German leadership in Europe), whereas the discourse about Italy had long revolved around issues of political dysfunctionality,

3 This was, as political economists note, not the outcome of a radically different economic philosophy in each case. It was rather driven by the diverging political-economic pathways since the turn of the millennium: Italy had embarked on a path of accumulated disadvantage because of large public debt obligations inherited from the 1970s (Piattoni and Notermans 2021).

4 Assessments seem to differ depending on the way this phenomenon is measured. According to some estimates, the number of zombie firms declined quite significantly in Italy after 2013 (when around 20 % of listed companies were labeled as zombies (see Rodano and Sette 2019, 13), down to a mere 11 % in 2018 (Schivardi et al. 2020, 574). According to a different estimate, the share was reduced to about 15 % (Schularick 2021, 16). Marco Pelosi, Giacomo Rodano, and Enrico Sette find that, for Italy, "as of 2019, the incidence of zombie firms was at the lowest level in the full 24 years included in our sample" (2021, 11). For our purposes, what matters is that there is evidence that before the onset of the pandemic, the Italian share approximated German levels, where it had remained more or less stable after 2008.

an overblown welfare state, and low productivity. Again, here we target a cultural discourse *about* the economy, not the actual political economic formations, which are, in fact, rather similar in these two societies (Fazi 2021; Piattoni and Notermans 2021).⁵ The juxtaposition of a *frugal* Germany and a *prodigal* Italy, however, constituted the dominant discursive formation in early 2020. We assume that politically left-leaning newspapers invoke the trope of zombie firms to frame state interventions in the economy as necessary and beneficial—in terms of addressing the existential threat to businesses, but also in terms of a broader political project in which the role of the state is favorably seen as actively shaping the economy in the future. By contrast, we suppose that politically right-leaning newspapers use the zombie trope to warn about state intervention as a pernicious driver of the zombification of the economy. They draw on political rhetoric that emphasizes the primacy of ‘natural’ market dynamics over ‘artificial’ state support, and calls for ending pandemic state relief soon.

Method and Data

We used computational text analysis to study newspaper articles as a part of public discourse about zombie firms.⁶ This set of techniques allows to mine text as data to discover patterns between words based on their similarity, structural association, or predictive power (Evans and Aceves 2016, 25; Benoit et al. 2018). We use text analysis to detect underlying patterns and differences in Italian and German newspapers of different political alignments, which inform the qualitative inspection of their content.

To capture a plurality of voices from across the mainstream political spectrum of media outlets in the two countries, we collected articles from major center-right and center-left newspapers in each country (Germany: *Frankfurter Allgemeine Zeitung* and *Die Welt* for the center-right, *Süddeutsche Zeitung* and *Die Zeit* for the center-left; Italy: *Il Giornale* and *Il Corriere della Sera* for the center-right, *La Repubblica* and *Il Fatto Quotidiano* for the center-left). We collected articles published between January 2020 and February 2022 in order to investigate the discourse around zombie firms during the outbreak and evolution of the pandemic. We downloaded articles in that time

5 Italy implemented a range of austerity and budget consolidation measures since the Financial Crisis, hence the Italian model is, in practice, very close to the German one (Piattoni and Notermans 2021, 313).

6 The code with detailed description of our steps is available at <https://doi.org/10.5281/zenodo.10970892>.

range if they included both synonyms of *zombie firms* and synonyms of *covid* in the text.⁷

The final sample (corpus) of selected newspapers comprises 203 newspaper articles: 105 German articles published between February 2020 and February 2022 and 98 Italian articles published between January 2020 and December 2021.⁸

Results

Comparing the Most Distinct Language

In Illustration VII.1 and Illustration VII.2, we explore the main differences in the terms used by right-leaning and left-leaning newspapers in each country separately. We use the keyness technique, which reports the opposite relative frequency of terms found in a target group (right-leaning newspapers) when compared to a reference group (left-leaning newspapers). Keyness relies on the chi-squared test χ^2 as a measure of the likelihood of one term being cited in one group compared to the other group. A χ^2 equal to 0 means there is no difference in the frequency of that term between groups, positive values mean the term is more likely to be used by right-leaning newspapers than left-leaning, while negative values mean that the term is more frequently used by left-leaning newspapers. Illustration VII.1 shows the results of keyness on the corpus level (using the entire set of articles as the source of analysis), which allows to detect the general differences between right-leaning and left-leaning newspapers in terms of their discourse. Illustration VII.2 reports sentence-level keyness, narrowing down the analysis to sentences that mention terms related to zombie firms,⁹ so as to highlight differences between newspapers' alignments when the precise concept is taken into account.

At first glance, these analyses reveal some general differences. Right-leaning newspapers in both countries are more likely to mention economic aspects of a debt relationship (DE: overindebtedness: *Überschuldung*, suspension [of obligations]: *Aussetzung*; IT: industrial crisis: *crisi aziendali*, relaunch: *rilancio*) or political-economic actors involved (DE: *Deutsche Bank*, eurozone: *Euro-zone*; IT: [giancarlo] *giorgetti*,

7 We extended the keyword search to include the term '*Insolvenzantragspflicht*' for Germany and synonyms of firms subject to '*decozione*' for Italy (broadly, legal practices related to insolvency claims), which may relate to the zombie firm topic. For collection of data and data management, see the code.

8 German composition: *Frankfurter Allgemeine Zeitung*: 42, *Die Welt*: 28, *Süddeutsche Zeitung*: 26, *Die Zeit*: 9; Italian composition: *Il Giornale*: 6, *Il Corriere della Sera*: 44, *La Repubblica*: 32, *Il Fatto Quotidiano*: 16.

9 For details on data cleaning, dealing with synonymous, and further methodological choices that affect the analysis, see notes in code.

i.e., the minister of economics, state: *stato*). German left-leaning papers tend to use terms relating to the labor market such as ‘short-time work’ (*Kurzarbeit*), ‘employees’ (*Beschäftigte*), and ‘unemployment’ (*Arbeitslosigkeit*). Italian left-leaning newspapers cite consequences of the crisis such as ‘inflation’ (*inflazione*) and groups that are affected (families: *famiglie*), along with examples of struggling firms (*Alitalia*, *Ama*) (Illustration VII.1).

Illustration VII.1: Keynes analysis, corpus level

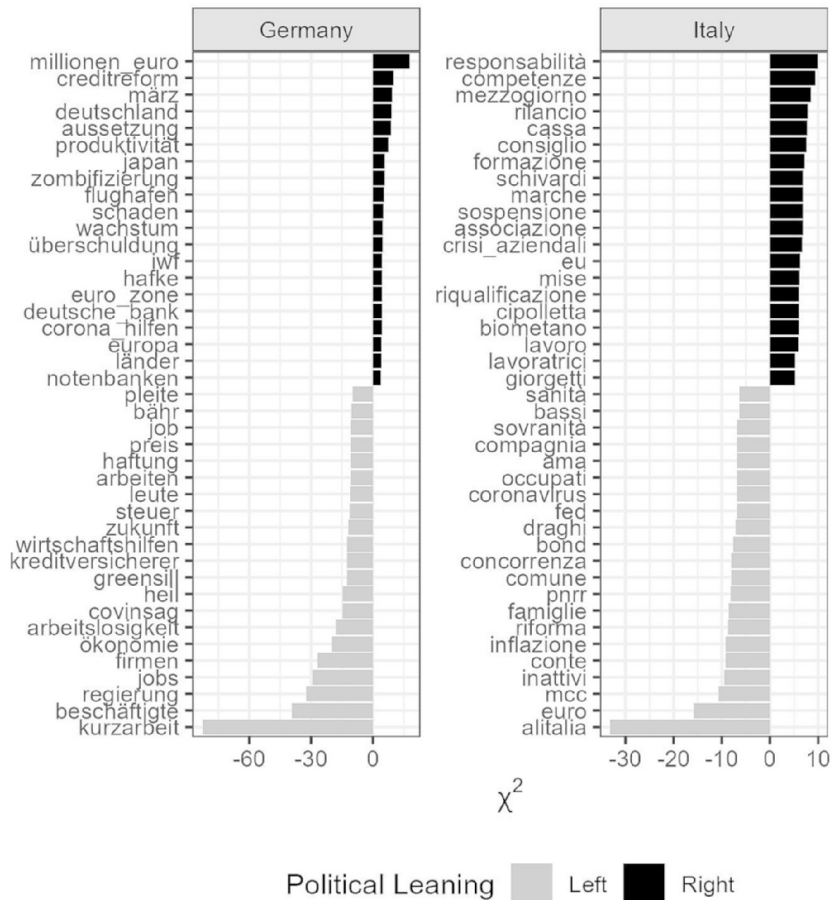


Illustration by the authors of this chapter.

Illustration VII.2: Keyness analysis, sentence level (including synonyms of zombie firm)

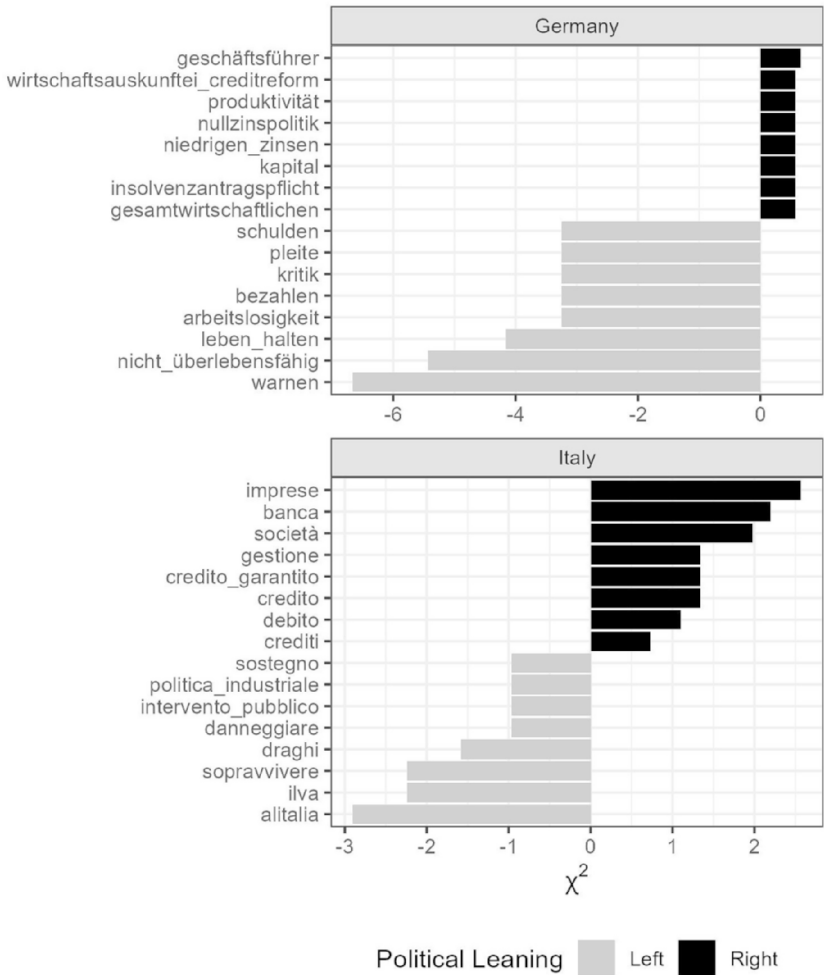


Illustration by the authors of this chapter.

Sentence-level keyness (Illustration VII.2) seems to confirm most of these differences. In the right-leaning media, zombie firms are more likely to be associated with a language of credit and debt, such as ‘zero-interest rate policy’ (*Nullzinspolitik*), ‘low interest rates’ (*Niedrige Zinsen*), ‘requirement to file for insolvency’ (*Insolvenzantragspflicht*). Left-leaning newspapers, instead, stress the condition of zombie firms as not being able to survive on their own (*Nicht_Überlebensfähig*) and associate them with unemployment (*Arbeitslosigkeit*) and debts (*Schulden*). Similar to their German counterparts, Italian right-leaning newspapers associate zombie firms with

words related to credit such as ‘guaranteed credit’ (*credito garantito*), ‘debt’ (*debito*), and ‘bank’ (*banca*). Italian left-leaning newspapers, by contrast, are more likely to cite topics of public debate as public intervention (*intervento pubblico*) and industrial policy (*politica industriale*), along with political actors such as Mario Draghi (*draghi*) and names of specific problematic firms.

Exploring the Semantic Environment of Zombie Firms

Keyness analyses can reveal differences in the distinct language of articles compared, but do not provide information on the meaning of words in context. To address this point, we present a co-occurrence analysis of left-leaning and right-leaning newspaper articles in each country (Illustration VII.3 and Illustration VII.4).¹⁰ We report the co-occurrences as a network graph. Each node is a word whose size represents its degree, i.e., the total amount of co-occurrences it receives, which we take as an indicator of its semantic importance. The link between two words represents their co-occurrence, and the thickness of the link reflects the number of times the co-occurrence happens (the more often the co-occurrence, the thicker the link).

In the German network of co-occurrences (Illustration VII.3), ‘zombie firms,’ ‘coronavirus crisis’ (*Corona-Krise*), and ‘companies’ (*Unternehmen*) are among the most frequently co-occurring terms in both political domains. However, financial terms such as ‘insolvency’ (*Insolvenz*) and ‘economy’ (*Wirtschaft*) are characterized by greater centrality in right-leaning than in left-leaning newspapers, together with more monetary economic terms such as ‘risk’ (*Risiko*) and ‘danger’ (*Gefahr*) or ‘European Central Bank’ (*Europäische Zentralbank*). For left-leaning newspapers, the top terms concern policies that aim to mitigate the crisis. Policy actors such as ‘government’ (*Regierung*) and ‘federal government’ (*Bundesregierung*) occur more often, and in connection to intervention measures such as ‘short-time work’ (*Kurzarbeit*) and ‘short-time work allowances’ (*Kurzarbeitergeld*). The rank of interests of the two political alignments is highlighted by the difference between the words *Insolvenz* and *Kurzarbeit*: they occur in both networks, but the former with higher weight in the right-leaning newspapers and minimal weight in left-leaning newspapers, and, by contrast, the latter with higher weight in left-leaning newspapers and much smaller weight in right-leaning newspapers.

10 This analysis counts the terms that appear together either in an article or in a specified window around a single term. Here, we compute co-occurrences within a twenty-word window (taking into account twenty words on the left and twenty on the right, hence considering a total of forty words), which we considered as enough for a semantic unit. For the sake of simplicity in visualizing our results, we report the top 21 words for each unit. We considered this choice the best trade-off between clarity and comprehensiveness to show semantic patterns of the most important terms.

Illustration VII.3: Co-occurrences forty-word window Germany

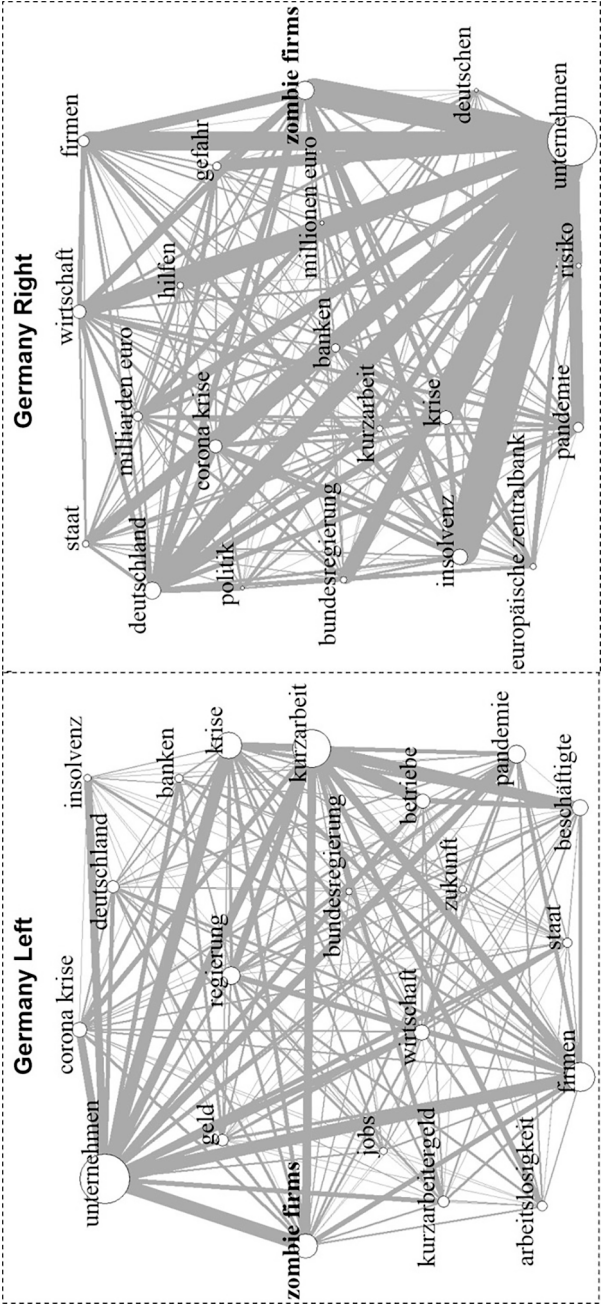


Illustration by the authors of this chapter.

In the Italian network (Illustration VII.4), right- and left-leaning articles align more strongly in terms of the language they use than expected. For instance, ‘firms’ (*imprese*), ‘organizations’ (*aziende*), and (economic and job) market (‘market’; *mercato*) score high in both political domains, followed by ‘crisis’ (*crisi*), ‘pandemic’ (*pandemia*) and ‘Italy’ (*Italia*). On both sides ‘layoff payments’ (*cassa integrazione*), an instrument similar to *Kurzarbeit*, has high co-occurrence scores and is connected to the word ‘workers’ (*lavoratori*). However, these terms appear to be more tightly inter-linked in right-leaning newspapers with words such as ‘growth’ (*crescita*), ‘recovery’ (*ripresa*) and ‘risk’ (*rischio*), together with governance actors as the ‘state’ (*stato*), ‘president’ (*presidente*), and ‘country’ (*paese*). Observations from left-leaning newspapers align with results from Illustration VII.2, showing higher co-occurrences for names of struggling industries acting as zombie firms (*Alitalia*) together with terms of the political landscape at the national level, such as Mario Draghi (*draghi*) and the ‘government’ (*governo*), and at the European level, such as ‘Europe’ (*europa*) and ‘European Central Bank’ (*bce*).

These analyses confirm our earlier findings. The language found in right-leaning newspapers is more closely associated with issues of debt and credit in both countries; institutional actors are more likely to be cited by German left-leaning and Italian right-leaning newspapers; the left-leaning framing in both countries tends to foreground specific actors who suffer from the shock, like workers, families, and policies that seek to cushion the crisis’ detrimental effects.

Tracing the Qualitative Discourses on Zombie Firms

In the next step, we move from the quantitative approach to the qualitative analysis of the corpus to investigate patterns we found in more depth, and detect nuances that might have been overlooked in the frequentist approach of descriptive text statistics. To do so, we use the top terms generated in the text statistics described above to identify relevant passages in newspaper articles. We qualitatively analyze the newspaper articles according to how the term *zombie firms* is used and what kind of arguments about the role of the state in the economy are advanced.¹¹

In the German papers, early on in the pandemic, the zombie firms theme appears together with dire warnings about the state of the economy. Some commentators point out that the underlying problem—the cheap availability of credit (*Nulzinspolitik*)—had existed already before the pandemic, but that the pandemic state aid aggravated the situation because it provided massive liquidity and has relaxed the rules according to which unproductive firms are forced to exit the market. The diagnosis that there are ‘unhealthy’ firms in the economy that suck off resources is,

11 Translations presented in this section were created using DeepL and cross-checked by the authors of this chapter.

in fact, advanced both by right-leaning and by left-leaning newspapers in the first few months of the pandemic.

A recurring theme in conservative German papers is to portray the suspension of 'the requirement to file for insolvency' (*Insolvenzantragspflicht*) as the main cause of a massive proliferation of zombie firms. For example, in an August 2020 report in *Die Welt*, economist Patrick-Ludwigh Hantzsch notes, "The government nourishes zombie firms. [...] These undead are putting the entire economy at risk. [...] While interest rate zombies are kept alive by cheap credit, this 'new species' manages to survive only thanks to legal exceptions" (qtd. in Dierig et al. 2020).

Left-leaning papers, while initially striking a similar tone, soon begin to criticize and reject the trope. This, as it becomes evident from the qualitative analysis, is linked to their defense of 'short-time work' (*Kurzarbeit*) as a successful, economically rational tool to cushion the pandemic shock in the German labor market. As the *Süddeutsche Zeitung* notes in January 2022, "The crisis management of the former government has worked. Employees notice that the short-time work program was a success. It was expensive, but it has saved jobs. Does anyone still remember the warnings about how short-time work would fatten zombie firms and that a wave of bankruptcies would soon sweep the country? It has proven to be a myth of market liberals who condemn any kind of crisis politics" (Hagelücken 2022). Like other articles that reject the zombie firms theme, the critique of the myth of nourishing zombie firms is a defense of active state intervention in response to the crisis. For left-leaning newspapers, the fact that the number of insolvencies has not substantially risen (by early 2022) is a fact that the warnings were wrong. Right-leaning commentators, for their part, continue to argue that the number of insolvencies has remained low only because the real extent of financial difficulties has merely been concealed by generous state spending (invoking the cultural theme that zombies must be disclosed, using the tool of insolvency regulations), thus calling for a reduction of the activities of the state in the economy and for allowing for the 'purification' of the market to proceed.

The discourse of Italian newspapers revolves mainly around state interventions, in particular 'payroll subsidies' (*cassa_integrazione*). At the beginning of the pandemic, there is a general consensus about the need for state intervention to avoid the proliferation of bankruptcies. However, by 2021, most newspapers point out that state relief programs have in fact created a condition of dependency that will likely cause 'unhealthy' firms to collapse once the funding runs out. As the argument goes, this will not only reveal pre-existing zombie firms but also generate new ones. Similar to their German counterparts, most Italian right-leaning papers stress that zombie firms survive only due to the supply of credit by the government (which in fact also covers old, pre-pandemic debts) and pledge for a return to 'free' market dynamics that regulate through mechanisms of competition and purification the market independent of state intervention. As *Corriere della Sera* notes in December

2020: “This year, bankruptcies halved compared to 2019. [...] Only in the next few months will we begin to understand how many of the firms held up in 2020 are not dead, but they are not even alive. They are zombies: unable to generate the cash needed to keep going; kept alive only through a continuous flow of government-guaranteed credit to repay old debts or through moratoriums on repayments to be made to banks, government refinancing, or ever new waves of layoffs” (Fubini 2020).

A frequently cited topic is the set of recommendations of the Group of Thirty (G30) led by Mario Draghi and Raghuram Rajan, who argue that there is a need to continue state support after the pandemic on a global level, but to limit it to firms that are classified as capable of surviving. The recommendation to promote policies aligning to “digitalization, environmental sustainability, or the promotion of new or strategic industries” (Group of Thirty 2020, 4) is closely related to visions about the new economy and the “corporate welfare” of firms (Confindustria president Carlo Bonomi qtd. in Mania 2021). In this respect, the discourse is similar to some voices in the German discourse about the crisis as a “transformative recession,” which envisions new corporate models rooted in “digitalization” and an “ecological restructuring of society” (Fitzenberger and Walwei 2020).

However, in the Italian debate, different positions emerge as far as the criteria for allocation of funds and the role of the state are concerned. One salient trope in this regard is introduced by Mario Draghi, who distinguishes between *good debt* (*debito buono*) and *bad debt* (*debito cattivo*).¹² While the former refers to investments that lead to a constructive renewal of the market and a firm’s solvency in the future, the latter is seen as a waste of money, a situation of stagnation and prolonged indebtedness. Right-leaning newspapers reject this position, as it would imply a “selective use” (economist Marcello Messori qtd. in Di Vico 2020) of debt by the state, which can then decide on whom to fund. The criticism is to limit the independence of firms that cannot count on debt capital—i.e., access to external loans when required—to support their own functioning (Di Vico 2020).

Left-leaning newspapers show less cohesive positions. They recognize the need for state interventions such as layoff payments (*cassa_integrazione*) at the beginning of the pandemic, but some commentators are skeptical about their efficacy in the long run, pointing out that the recovery programs have created a condition of dependency. Similar to their right-leaning counterparts, they express a fear that the number of zombie firms will only grow in the future, arguing that the pandemic state aid programs may have also concealed those zombie firms that had already existed before the pandemic. However, they are less concerned with the relation of zombie firms to credit or the banking sector and rather portray zombie firms as a

12 To the best of our knowledge, the first mention was at the Rimini Meeting in August 2020 (Euractiv 2020).

general result of the inefficiency of the state in providing support. When it comes to future scenarios and the recommendations of the Group of Thirty, the differences are most evident, in particular after the appointment of Mario Draghi as Prime Minister of Italy. Unlike right-leaning media commentators, they seem to embrace the need for state intervention, and in particular the need to allocate credit based on the likelihood of firms to survive. Alessandro Bombassei, the president of Brembo automotive industry, summarizes this position in a nutshell in an interview with *La Repubblica* in February 2021: “Unemployment benefits and citizenship income are band-aids, not a long-term cure. I believe that the government will find the solution to produce the least social impact possible. [...] It’s pointless to continue subsidizing companies that have no future, you need to direct funds and investments to promising sectors and productive companies” (qtd. in Pons 2021).

Overall, our results show how the zombie firm trope accompanies not only debates about credit and the financial sector but also about the involvement of the state in the economic landscape, revealing different political alignments in public opinion. While right-leaning newspapers in both countries use the zombie theme to articulate pledges for freedom of the market from state intervention, left-leaning newspapers are more prone to embrace such measures but differ with regard to how much confidence they have in their efficiency.

Conclusion and Outlook

In this chapter, we have examined discourses around zombie firms in Italian and German newspapers during the first two years of the COVID-19 pandemic. In a situation in which many businesses—in particular, small businesses and the self-employed—faced an existential struggle for economic survival, there was a widespread need for making sense of the causes and the consequences of the crisis and state interventions (Boin and ‘t Hart 2022). The zombie theme is one important symbolic and affective ‘folk economic’ trope that has a prominent place and a rich history in the critique of neoliberal subjectivity and global, crisis-ridden capitalism. Here, we focused on a shift in the meaning of the zombie metaphor that makes it increasingly amenable to conservative positions. We have analyzed discursive representations of firms that are seen as undergoing a process of zombification, or already recognized as a zombie, and that are ‘artificially’ kept alive by state support—a discourse that separates ‘healthy’ from ‘unhealthy’ market actors (Caballero et al. 2008; Adalet McGowan et al. 2017).

We could see that a lively debate about zombie firms—and, connected to this theme, about the gloomy prospect of mass insolvencies of businesses during the pandemic—exists in the Italian and German public spheres. However, depending on political alignments, the theme can be invoked in different ways: right-leaning and

conservative newspapers tend to portray zombie firms as a problem of debt relationships as well as one of excessive government activity in the economy; left-leaning and more progressive voices are more inclined to defend fiscal and social policies intended to help struggling businesses (and, by extension, workers and vulnerable groups in society) against these changes.

Notably, the differences between the Italian and the German discourse are not as stark as one might expect, which contradicts the assumption that German commentators would be more strongly concerned with problematizing the negative effects of state and corporate debt. While right-leaning newspapers in the two countries similarly connect zombie firms to the issues of credit and industrial production, the differences between left-leaning newspapers are more evident. The critical discussion and rejection of the zombie firm trope and the positive reference to state intervention (see *Kurzarbeit*) is somewhat more pronounced in the German than in the Italian left-leaning media. Italian left-leaning newspapers reject state intervention to a lesser degree than their right-leaning counterparts but are still skeptical as far as the efficiency of public aid in the long term is concerned. Zombie firms are seen as an outcome of unsuccessful state intervention rather than as a structural and inevitable effect of excessive state intervention, as in right-leaning interpretations. Despite this difference, they also tend to foreground the issue of credit, somewhat similar to right-leaning newspapers. On these grounds, we agree with scholars who argue that it is high time to move beyond persistent clichés about the contrasting role of Italy and Germany in the architecture of the European political economy (Fazi 2021; Piattoni and Notermans 2021). Our comparative analysis of zombie firm discourse is one step in this direction.

The zombie firm theme, as it became apparent from our empirical analysis of newspaper articles, is a predominantly conservative fictional representation of economic processes. This is, first, because it is rooted in the idea that zombies are greedy, cannibalistic, and contagious (de Bruin-Molé 2021)—they endanger other market actors around them, thereby threatening to drag down the economy as a whole (Adalet McGowan et al. 2017)—and, second, because of their close association with debt and indebtedness as a condition of economic dependency. Literary scholar Fred Botting (2013) argues that the figure of the zombie perfectly institutes the debt-relation in neoliberal societies: in contrast to the figure of the vampire, which symbolizes booming credit markets and consumer subjectivity, the zombie connotes debt, stagnation, and the state of being deprived of agency. And this fictional representation is, in fact, related to actual power relations in society. Forms of structural power (Hacker and Pierson 2002; Lindblom 1977) grant large companies an influential market position. Large firms' bankruptcies can have macroeconomic consequences such as rising unemployment and spillover effects on dependent industries. On these grounds, it is considerably easier for larger companies to obtain credit from stakeholders. Conversely, in what they call "the great debt divergence,"

political economists Joseph Baines and Sandy Brian Hager observe that small firms have, since around the 1970s, been increasingly at a disadvantage when it comes to access to credit; and that their debt servicing burden has simultaneously increased (2021, 893).¹³ A firm's position in a given political economy of debt, then, is a major factor in determining its economic prospects.

In the context of the historically unprecedented pandemic state aid programs in Germany and Italy, the zombie firm theme can serve as a powerful symbolic tool to cast doubt on the legitimacy of certain forms of economic and social policy (such as short-time work programs). In this sense, it can function as a compelling cultural logic invoked by market-liberal commentators and policy makers to warn against the dangers of an active, interventionist state. But the zombie theme can also be used, as we have shown, to introduce a discussion about the necessary transformations of firms in a changing economic environment, of defining sustainable (for instance, green or digital) business models. This is one way in which it is also invoked by more leftist commentators, and this logic also undergirds more future-oriented, positively charged ideas about struggling firms, such as Mario Draghi's differentiation between good and bad debt.

The problem of zombie firms is not going to go away anytime soon. In light of the recent inflation and energy crisis and the contraction of growth in large parts of the world, zombie firms may well continue to linger among us—both as a material reality and as a powerful metaphor that shapes economic reasoning.

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13 Indeed, in our analysis left-leaning newspapers in both countries pointed out cases where small businesses did not have access to public support because the funds had been drained out by large companies that governments could not let close, such as Galeria Karstadt Kaufhof in Germany (Busse 2021) and Ilva and Alitalia in Italy (FQ. 2021; Di Foggia 2020). For the Italian case, authors stress how their status of zombie firms goes back to time before COVID-19 (Di Foggia 2020).

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“Vacuna o muerte”

Latinx Political Cartoons as Vehicle to Raise COVID-19 Vaccination Awareness

Anna Marta Marini

In the United States, the Latinx population was hit particularly hard by the COVID-19 pandemic. Among other factors, high infection and low vaccination rates marked the Latinx pandemic experience; the differential was evidenced even by the data collected by the Centers for Disease Control and Prevention (Oppel et al. 2020; Noe-Bustamante et al. 2021; Piedra et al. 2022). Although mainstream media often imputed such outcomes to the minority’s alleged prevalence of underlying medical conditions and hesitancy towards health measures and vaccines, reality is much more complex and directly related to labor and structural violence issues. Furthermore, the lack of COVID-19 information that is culturally coded has also played a major role in the spreading of misinformation across Latinx communities. Medical communication has been either monolingual or erroneously translated to Spanish, filled with jargon and oblivious of the specificities of Latinx access to health care.¹ As the vaccine campaign began, the problem was amplified by the fact that—just like these communities had prior difficulties to access testing—the Latinx population on the average encounters structural barriers to access vaccines (among many, see Cheng and Li 2022).

As the vaccine campaigns unfolded, several activist groups formed to fight against misinformation across Latinx communities, in particular in rural and marginalized areas. Among them, COVIDLatino emerged as a project promoted by Arizona State University and aimed at providing critical information on testing

1 The term ‘Latinx’ is meant as an inclusive definition to refer to people of Latin American heritage who live and/or work in the United States in a stable manner, regardless of their gender. ‘Chicanx’ is the agender term identifying Mexican Americans who are openly proud and politically engaged against assimilation and erasure of their heritage; evidently, all Chicanx individuals are Mexican American, but not all Mexican Americans are Chicanx.

and vaccines across the country, with a specific focus on the Southwest.² Its campaigns endorsed the work of Chicano cartoonist Lalo Alcaraz, who was then briefly employed by the California Department of Health to create material specifically promoting vaccination in the Latinx communities. Keeping his cartoons as main reference, this chapter examines the discourse specific to Latinx cartoons on the COVID-19 vaccination campaign, highlighting its strong connections to Latinx heritage and themes specific to the structural violence that the Latinx communities have endured since the start of the pandemic.

Raising Awareness Through Political Cartoons

Eduardo López Alcaraz, better known as Lalo, was born in San Diego to a couple of Mexican migrants. Attending San Diego State University in the 1980s, Alcaraz joined the Movimiento Estudiantil Chicano de Aztlán (MEChA) and started producing editorial cartoons for the local newspaper; he then graduated in architecture at Berkeley and from 1992 through 2010 created editorial cartoons for *LA Weekly*, getting syndicated in 1998 (Fernández L’Hoeste 2017, 25–28). His best-known syndicated cartoon is *La Cucaracha*, a Latinx-themed political daily strip, and through the years his reputation has progressively grown outside the Latinx audience. As Héctor D. Fernández L’Hoeste underlines, Alcaraz’s work is tied to an “attitude”—that “implies a healthy dose of irreverence,” as the artist himself “is critical of the status quo and skeptical of the printed word” (2017, 31)—as well as a consolidated connection to the Latinx community.

The artist defines himself as a ‘pocho,’ a slur used by Mexicans to describe Mexican Americans and Mexican migrants who lack or have lost an ‘authentic’ connection to their heritage and language fluency. However, the term has been reclaimed by those Chicanxs that feel it defines, rather, the pride of having both Mexican and American cultural roots, embodied by their code-switching and customs peculiar to Mexican American communities. As the artist himself puts it, explaining his POCHO endeavors,³ it is a process of re-imagination of a pejorative term used to insult “a

2 The project has a bilingual website (<https://covidlatino.org>), which has been updated and reshaped repeatedly since 2021, as well as a YouTube channel (<https://www.youtube.com/channel/UCOJV3HICXxcq8QmpVpTKqQ>) and social media profiles. By the time of the last revision of this chapter in September 2024, the project has grown, archiving part of the initial material while adding artwork and animated videos on long COVID, including Lalo Alcaraz’s “No tacos para ti! (Spanish)” published on March 15, 2024, by the new YouTube channel @ellaboratorioASU.

3 Lalo Alcaraz is the founder of the satirical publication *POCHO Magazine* (printed throughout the 1990s) and main editor of the *POCHO* website that collects political cartoons by Latinx artists, as well as his own daily strip *La Cucaracha* (<https://www.pochocom.com>).

citizen of two worlds but not really of either" into the identity of an individual that "belongs in BOTH worlds and wears BOTH identities proudly." His editorial cartoons and strips are, thus, strongly influenced by notions connected to his own liminal identity and cultural in-betweenness, often characterized by code-switching between English and Spanish, as well as themes and iconographies that are culturally relevant to the Mexican American population.

During the pandemic, Alcaraz tackled COVID-19-related topics, blending satire and culturally coded commentary on its developments, the authorities' responses, and public reactions to both the virus spread and the consequent measures imposed. He produced most of these cartoons with the aim of engaging the Latinx audience, featuring a variety of discursive strategies, culturally charged puns, Catholic symbols, Latinx historical figures, political commentary, and play on stereotypes targeting Latinx residents and migrants. For his contribution, Alcaraz was the first Latinx recipient of the Herblock Prize (March 2022) due to his coverage of issues affecting the Latinx minority, as well as the peculiar perspective from which he tackled the pandemic and the contemporary surge of nativist views during the Trump administration.

Some of Alcaraz's satirical commentary on the pandemic was accompanied by references to traditions and popular culture tropes that are widespread among Latinx individuals, but not necessarily outside their community. As Christina Michelmore stresses, political cartoons are a graphic version of an editorial, since they analyze and interpret a situation, influencing and orienting the readers toward a stance on the issue represented (2000, 37). They embody a kind of news discourse—opinion news—that enables the public to judge what is happening on the basis of the cartoonist's rendition of it, and thus organize and interpret what they see giving meaning to it within their own set of values and beliefs. On the cartoonist's part, there is an assumed shared political and cultural knowledge that allows the readers to catch and interpret the visual and verbal references, as well as an assumed up-to-date knowledge—since quite often cartoons are based on immediacy and the timely depiction of the most recent turn of events.

Martin J. Medhurst and Michael A. DeSousa trace a few fundamental parameters to analyze political cartoons: "political commonplace, literary/cultural allusions, personal character traits, and situational themes" (1981, 200). Alcaraz's COVID-19-related cartoons in which the virus appears as an active agent in the pandemic—albeit helped by human spreaders—mix the anthropomorphized traits the artist gives it with situational narratives that have "little salience beyond their immediate context" (Medhurst and DeSousa 1981, 202). The cartoons that he produced to raise pandemic-related awareness, though, combine political commonplace and ethnic heritage-relevant allusions. Political commonplaces represent something the readers are assumed to be familiar with and that they can identify as a cue that the topic described is related to politics, whereas cultural allusions refer to fictional figures

recognizable by the public. Expanding Medhurst and DeSousa's definition, it can be argued that these allusions embrace as well elements belonging to popular culture imaginaries that are relevant to the specific audience the cartoon is aimed at.

Alcaraz's political cartoons are characterized by colorful art and a simple structure, often revolving around one main subject. The metaphors are usually immediate and quite all-encompassing, understandable by the American public broadly. However, the ones aimed specifically at the Mexican American—and in many cases, more broadly Latinx—audience are often more articulated and rely heavily on shared cultural referents. Since the onset of the pandemic, Alcaraz regularly brought COVID-19-related topics in his daily strip *La Cucaracha* and, at the same time, used his syndicated political cartoons to address issues that hit the Latinx communities in particular. Besides satirizing the authorities' often inadequate responses to the unfolding of the pandemic, Alcaraz targets his own community, exposing how the virus outbreaks and related measures have been met with ambivalent reactions by the Mexican American population.

In the case of the "Welcome to the LA Quarantine" cartoon (July 2, 2020; Illustration VIII.1), Alcaraz reprises in detail one of the best-known engravings by Mexican artist José Guadalupe Posada (1852–1913), whose "calacas" were a satirical political commentary on Mexican society in the Porfiriato era,⁴ as well as on political actors involved in the Revolution. Affirming the black nature of Mexican humor (Breton 1966, 18), Posada's illustrations were strongly rooted in Mexican heritage and contributed to indelibly shape fundamental iconographies of Mexico's post-revolutionary popular culture. Alcaraz reclaims the spirit of Posada's work to expose his own people in a way that they surely understand and interpret in the correct, meaningful way: he criticizes Mexican American citizens for organizing parties and backyard barbecues during the pandemic. The organization of gatherings that became superspreading events in the summer of 2020 was not circumscribed to the Latinx population, but he targeted his ethnic peers explicitly to raise their awareness.

In general, the ways in which the Latinx communities articulate their sociality are rooted in their heritage and aimed at reinforcing their in-person social networks, preserving their customs through group activities, and spending a significant time cultivating their family and community bonds. Intergenerational gatherings in which food is shared among many people are common; for Mexican Amer-

4 Initially influenced by the work of Manuel Manilla, throughout his life Posada produced political illustrations and cartoons for newspapers, criticizing the hypocrisy of the upper classes, the political elite's inherent contradictions, and in general the Mexican status quo. It is worth noting that the pervasive Día de Muertos figure of *La Catrina* derives from his satirical illustration *La calavera garbancera*, as some of his most known engravings were reprised in post-revolutionary times by other Mexican artists such as Diego Rivera (on Posada's prolific artistic production and its relevance, see, for example, Bonilla 2013).

icans, they take the form of "carne asada" or barbecue. Such kind of events implied high chances of infection and the development of severe symptoms before the diffusion of vaccines. Alcaraz's take on Posada's condemnation of social hypocrisy points the finger at the illusionary attitude his peers exhibited: no matter how much they told themselves that there was no risk in socializing without precautions, they were condemned to contract the virus with possibly grave consequences.

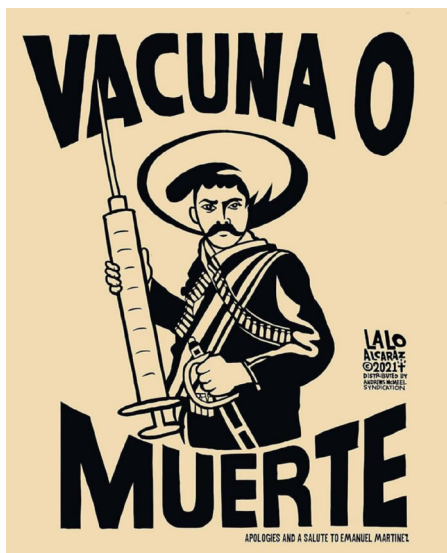
Illustration VIII.1: Eduardo López Alcaraz critiques the Mexican American community for organizing backyard parties



From Eduardo López Alcaraz's X (formerly Twitter), <https://x.com/laloalcaraz/status/1278593217005359105>, July 2, 2020. © Eduardo López Alcaraz, 2020.

When the vaccination campaigns started, Alcaraz tried to raise awareness among the Latinx minorities right away. The cartoon "Vacuna o muerte" (April 29, 2021; Illustration VIII.2) reproduces in detail the famed print "Tierra o Muerte" by Mexican American artist Emanuel Martinez. The original work, in turn, refers to Emiliano Zapata and the motto "Tierra y libertad" (land and freedom) that symbolized the agrarian struggles in rural Mexico at the beginning of the twentieth century. Martinez created the image in 1967 to support his adhesion to the Alianza Federal de Mercedes (Federal Land Grant Alliance) in New Mexico, supporting the Movimiento Chicano led by activist Reies López Tijerina. The rifle Zapata holds is substituted by a vaccine syringe, invoking a political stance regarding vaccination as a form of reclamation for underserved Mexican American communities.

Illustration VIII.2: Eduardo López Alcaraz's "Vacuna o muerte" draws on Emanuel Martínez's "Tierra o Muerte" to suggest vaccination as a means to reclaiming Mexican Americanness

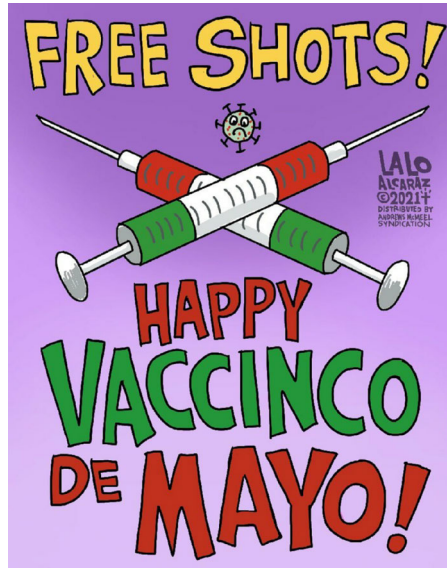


From Eduardo López Alcaraz's X (formerly Twitter), <https://x.com/laloalcaraz/status/1387861582214926337>, April 29, 2021. © Eduardo López Alcaraz, 2021.

Published on May 5, 2021, "Happy vaccinco de mayo" (Illustration VIII.3) plays with one of the yearly commemorations for Mexicans and Mexican Americans. The date marks the anniversary of the Battle of Puebla, in which the Mexicans fought against the rule of the Second French Empire and defeated the French forces in 1862. Nowadays, the celebration is much more popular in the United States, where it has become a symbol of Mexican American pride and heritage. Alcaraz addresses once again the gatherings Mexican American communities engage in, connecting them to the necessity to be vaccinated before participating in intergenerational events.

Besides his own interest in raising awareness regarding the vaccination campaign, Alcaraz eventually started a collaboration with the project COVIDLatino to spread information about vaccines, leveraging his consolidated audience across Latinx minorities to combat misinformation.

Illustration VIII.3: Eduardo López Alcaraz again calls attention to get vaccinated before attending in-person gatherings, this time in the context of Cinco de Mayo



From Eduardo López Alcaraz's X (formerly Twitter), <https://x.com/laloalcaraz/status/1390053427623825410>, May 5, 2021. © Eduardo López Alcaraz, 2021.

COVIDLatino: Promoting Vaccination in the Latinx Community

The COVIDLatino health communication campaign was launched in May 2021 to foster health literacy within the Latinx population, providing information on the COVID-19 pandemic that is science-based and shaped for a Spanish-speaking audience. According to the official website, COVIDLatino “is focused on providing critical & timely information to ease the burden of COVID-19 on Latinx communities,” both on the SARS-CoV-2 spread and vaccination. Its main communication strategies relied on the circulation of cartoons and animated videos that address fundamental concerns, sources of misinformation, and motives of hesitancy specific to the Latinx communities examined by the scholars and professionals involved in the project. In spring 2021, COVIDLatino's clips were officially used by the California Department

of Public Health for its public service announcements promoting the vaccine booster campaign.

The project stems from the work that Gilberto Lopez directs at the School of Transborder Studies (Arizona State University) on science communication that is culturally relevant for the Latinx and immigrant populations. For underserved minorities that include individuals who are bilingual or non-proficient English-speakers, it is fundamental to access, process, and understand health information that is tailored in the most effective way possible. Observing the lack of clear information his own community was dealing with at the onset of the COVID-19 pandemic, Lopez began to work specifically on the health communication that was circulating among Latinx people. In his early approaches to the task, his laboratory collaborated with the transmedia content agency Creative Frontiers in spring 2020 to produce the COVID Health Animation Project, addressing misinformation on the pandemic in Urdu and Spanish. At the same time, with the support of the University of California and local organizations, a team of scholars conducted a survey on agricultural Latinx communities and developed a mixed-methods study to pinpoint the community's specific concerns, beliefs, and struggles (Lopez 2020a).

As Lopez underlines (2020b), the pandemic was not the 'great equalizer' as it was often claimed in public discourse about the allegedly indiscriminate consequences of the spread. Despite media discourses that depicted the pandemic in democratic terms, the socioeconomic reality of it actually aggravated underlying discrimination and structural violence differentials, disproportionately affecting rural communities and marginalized minorities. The pandemic hit both urban and rural Latinx communities hard, as the outbreak—and the institutional response to it—exacerbated preexisting health inequities (Macias Gil et al. 2022). Latinx citizens and migrants are overrepresented in essential jobs and activities that cannot be carried out remotely, are subjected to unequal access to basic and quality health care, and more often live in multigenerational households.

Contextual vulnerability was one of the crucial factors that shaped the impact of the pandemic on the Latinx population. The main reasons for differential transmission were directly related to structural factors, especially workplace vulnerability (Do and Frank 2021; McClure et al. 2020). High rates of transmission were connected to the conditions endured at worksites, as well as to the lack of childcare infrastructure and paid sick leaves, in both rural and urban contexts (Quandt et al. 2021). Latinx workers employed in so-called 3D jobs (dirty, dangerous, and demanding), meat packing, and agriculture dealt with limited—or non-existent—respect for preventive measures and work conditions that discouraged proper recovery from COVID-related illness. The workings of racial capitalism operating within public health implied complications as well for ethnic healthcare workers, in particular those who were employed in particular in taxing nursing roles (McClure et al. 2020, 1248).

A few fundamental factors characterized the issues intrinsic to the Latinx pandemic experience. For immigrants and non-proficient English speakers, the lack of reliable public health communication and consistent care delivered in Spanish "delay[ed] critical messaging at a time when recognition of symptoms and precaution application is vital to reduce transmission" (Zaeh et al. 2021, 14). Likewise, the impossibility to be supported by one's own family during hospitalization, access an interpreter or health mediator, and express concerns and conditions effectively to healthcare providers increased the Latinx patients' potential vulnerability.

Furthermore, COVID-19 had an especially heavy burden among older adults belonging to ethnic and racial minority populations, due to a combination of exposure risk, so-called weathering processes, and healthcare inequity (Garcia et al. 2021). Limited healthcare access and pervasive lack of insurance make these individuals particularly prone to contract infectious and chronic disease that remain ineffectively addressed. Such underlying conditions add to the burden constituted by chronic stressors including "poverty, marginalisation, restricted access to resources and social support, limited opportunities, acculturative stress" (Garcini et al. 2021, 285). In addition, the nursing and assisted-living facilities that most Latinx individuals can afford were characterized by insufficient resources to guarantee prevention and efficient intervention during the pandemic (McClure et al. 2020, 1249).

Underserved and marginalized Latinx communities were facing distress and mental health stressor secondary to the pandemic that were not addressed by public institutions. As Luz M. Garcini et al. (2021) highlight, besides the widespread intersectional issues related to social isolation and economic uncertainty, primary stressors for Latinx individuals included misinformation, increased immigration-related preoccupation, and forced isolation from their habitual networks of social support. At the same time, the studies reflect how "robust and collective coping skills to foster resilience" within the community emerged that are culturally specific (Garcini et al. 2021, 291). COVIDLatino emerges from these intents to deal with health communication in ways that complement public health information and purposely fight against misinformation, conspiracy, and fake news regarding all aspects related to COVID-19.

During the first stages of the pandemic, the Latinx access to testing was complicated by the logistics of the public health official response that left large rural areas and marginalized neighborhoods even more underserved than usual. When the vaccination campaign eventually started in December 2020, the same type of obstacles complicated the immunization of the Latinx population. The need to register online, the inflexibility of scheduling, and the location as well as opening hours of vaccination sites were only a few main issues that communities facing digital divide, dependence on public transportation, lower education attainment levels, and inflexible work schedules had to cope with. In addition, misinformation and con-

fusion spread quickly due to the lack of dedicated information material on the vaccines, leading many to rely on information found on the internet, through social media, or by word-of-mouth. The material provided by the Centers for Disease Control and Prevention (CDC) barely reached marginalized communities and in general used technical jargon and “unnecessarily complex information about COVID, about vaccines” (Lopez 2021) and thus could not offer an efficient means to counter misinformation and hesitancy. The necessity to find more effective ways to raise awareness and spread information led these activist movements to rely on storytelling and the comics medium.

Several scholars have tried to pinpoint the communication factors that can be more effective among Latinx populations. In particular, Armando De Alba, Daniel Schober, and Patrik Johansson’s study evidences that the means perceived as most effective for health education and promotion are “videos, brochures, and websites,” accompanied by the use of “visual aids, large font size, and a well-spaced layout,” as well as cartoons and pictures that allow individuals to share them with their family members, including children and the elderly (De Alba et al. 2021, 392–93). Likewise, tailored language is key to both catch the interest of the users and get the message across. In general, the use of Latinx American dialects and code-switching have become fundamental elements appealing to Latinx cultural heritage, as opposed to dominant monoglossic Anglo culture and its mainstream means of communication. In the case of health communication, the employment of specific linguistic strategies can reduce the sociocultural distance between the individual and health professionals, facilitating a positive attitude, lower diffidence, and increased identification.

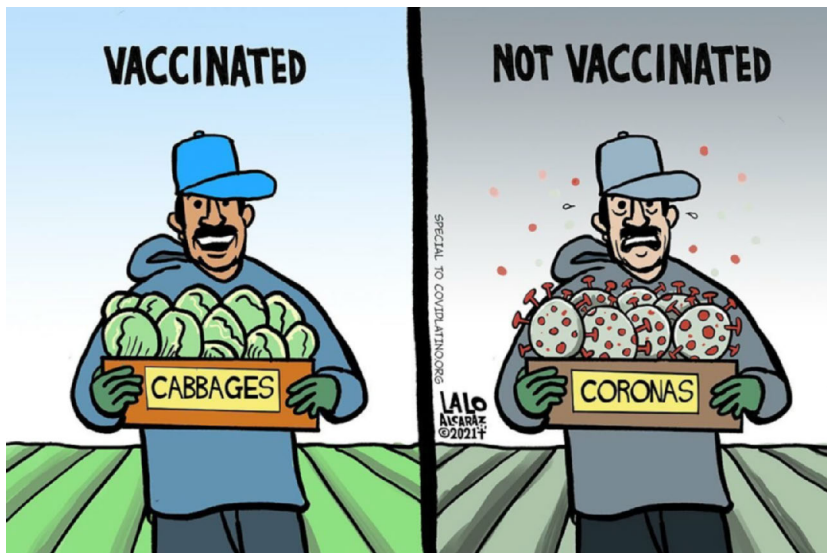
In spring 2021, COVIDLatino teamed up with Lalo Alcaraz for its vaccination awareness campaign,⁵ leveraging the cartoonist’s fame and consolidated effort to address pandemic-related topics. Besides his own cartoons dedicated to COVID-19, Alcaraz began to create art that would convey messages coherent with the campaign. One of the first images to carry the project’s mention was dedicated to Latinx immigrants (Illustration VIII.4). The population of agriculture laborers includes a high percentage of immigrants, whose origin is mostly Mexican and, in more recent years, Central American.⁶ For these workers, Spanish is their primary language

5 Lalo Alcaraz was chosen as Artist in Residence for 2021–2022 by the ASU School of Trans-border Studies.

6 According to official data provided by the Economic Research Service of the United States Department of Agriculture (USDA-ERS), 51 % of hired farmworkers are of Latinx origin. However, the 2019–2020 report by the Department of Labor established that 63 % of the farm labor workforce was born in Mexico and 5 % in Central America (and thus does not take into account Latinx workers born in the United States). The amount of so-called non-work-authorized (i.e., undocumented) agricultural workers is 56 % of the total. It is fundamental to stress that most of these individuals have lived and worked in the United

and only around 31 % of them reports speaking English "well" (DOL 2022, 14). The agricultural and farming sector never stopped producing during the pandemic, and it is often characterized by long working hours (46 h/week on the average), low rates of government-provided health insurance (39 %), and average hourly wages around US\$13. Besides workplace vulnerability due to fewer protective measures for COVID-19 (Quandt et al. 2021), farm workers suffered from high rates of reinfection and limited access to vaccines.

Illustration VIII.4: Eduardo López Alcaraz simultaneously tries to inspire Mexican American farm workers to get vaccinated and highlights the systemic problems in this line of work



From COVIDLatino's X (formerly Twitter), <https://x.com/covidlatino/status/1400900896276422656>, June 4, 2021. © Eduardo López Alcaraz, 2021.

For COVIDLatino, Alcaraz has expressly tackled the consolidated hesitancy correlated to consolidated issues in accessing healthcare (Illustration VIII.5). The dangers intrinsic to vaccination represent one of the fundamental causes of such hesitancy, as Latinx individuals struggled to find reliable public health content. The lack of popular health communication specifically created in Spanish and bereft of medical jargon pushed many to look for answers on the internet and, in particular, on social media. Similar to their in-person networks of social support, the connections

States for years of even decades, most of them paying taxes while trying to obtain a documented status to no avail (see DOL 2022).

established in virtual spaces seemed more reliable than the convoluted, inaccessible information provided by a healthcare system that discriminates them anyway. Alcaraz's cartoon is very simple and yet the message is immediate and made more impactful by the colorful art, as well as made in such a way to be easily understood by children and elderly members of the community.

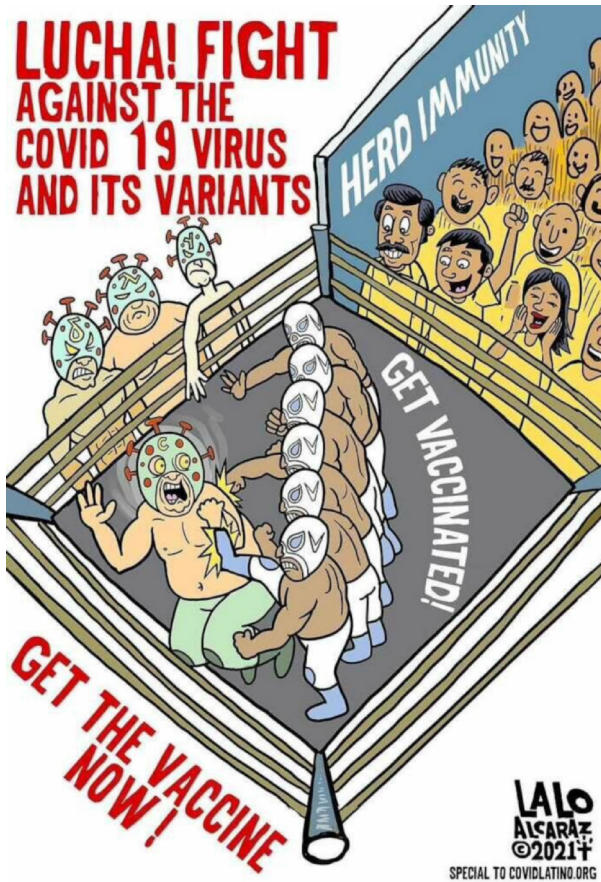
Illustration VIII.5: Eduardo López Alcaraz seeks to counteract vaccination hesitancy



From COVIDLatino's X (formerly Twitter), <https://x.com/covidlatino/status/1388210982569140225>, April 30, 2021. © Eduardo López Alcaraz, 2021.

Appealing once more to Mexican American heritage and popular culture, Alcaraz leverages iconography that is immediately recognizable in his incitement to fight the virus through vaccination (Illustration VIII.6). The vaccine is embodied by a group of luchadores whose mask reminds of iconic luchador El Santo, a figure most Mexican Americans of any generation would recognize. These wrestlers successfully fight virus-masked luchadores represented as the 'bad' social actors in the ring, establishing a dichotomy that is fundamental to structuring the lucha libre ethos: técnicos (the positive, correct, and well-meaning luchadores) fight against and eventually defeat rudos (villain luchadores characterized by unfair and malicious attitudes).

Illustration VIII.6: Eduardo López Alcaraz pits heroic luchadores against the coronavirus



From COVIDLatino's X (formerly Twitter), <https://x.com/covidlatino/status/1412456656747773971>, July 6, 2021. © Eduardo López Alcaraz, 2021.

COVIDLatino counts with the support of transmedia content agency Creative Frontiers and other artists, whose illustrations and animated videos can be found on the official website. In particular, the character Mama Lucha—a play on the homonymy between the word 'fight' and the hypocorism often used for women named Luz—has become the embodiment of healthcare, explaining COVID-19-related issues in detail and in accessible language (Illustration VIII.7).

Illustration VIII.7: Mama Lucha explains the spread of COVID-19 in a brief video

Screenshot from COVID Latino, “Sana distancia durante COVID-19,” YouTube, https://www.youtube.com/watch?v=-Dz-q_s2jiw, April 17, 2021. © Creative Frontiers, 2021.

These videos are characterized by simple, well-made infographics and a narrator explaining—in Spanish with English subtitles—details about COVID-19 symptoms and illness, as well as possible consequences. The introductory characters are ethnically coded, albeit much more subtly than it happens in Alcaraz’s work, while the bodies on which the medical information is detailed are stylized. It is worth mentioning the video “La pandemia y la salud mental de los niños” (the pandemic and children’s mental health) as an effort toward expanding the project’s scope, to include issues that might be left unaddressed by the structures Latinx communities have access to. Furthermore, the website provides some additional resources with detailed explanation about the registration process for testing and vaccination.⁷ However, the collaboration with Lalo Alcaraz on the Super Vaccine Vato videos is perhaps the most significant project the platform engaged in to create popular culture content that uses tropes and communication strategies relevant to the Chicana urban population.

7 These blog posts were published on the official COVIDLatino website in April 2021 but are unavailable at the time of finalizing this chapter.

Super Vaccine Vato and the Positive Cholo

One of the focuses of Alcaraz's art has been the reclamation of the cholo identity as a legitimate and articulated expressions of Chicane heritage, especially connected to working-class barrios. Initially emerged in California, cholo culture is characterized by a specific set of fashion elements, slang, beliefs, customs, and references. Albeit often equated with gang affiliation and criminalized tout court—both by institutions and in the mainstream imaginary—it is a much wider subculture embracing urban expression from lowriding to graffiti, often adopted by Mexican American youth to oppose cultural assimilation and, at the same time, differentiate themselves from incoming Mexican migrants. In fact, it often represents a "countercultural performance" (Rios and Lopez-Aguado 2012, 387) responding to ethnic and class marginalization, as well as criminalization. Especially when incorrectly superposed to pinto subculture—identifying prison veterans that usually speak Chicane *caló*, follow a strict code of conduct, and are heavily tattooed—cholo style turns the Chicane body into a "network of signifiers" that testify to the "abject status in society" (Olguin 1997, 161) imposed on ethnic subjects that do not adhere to monoglossic mainstream culture.

Alcaraz channels his reclamation of cholo identity as integral part of the heritage of many Mexican American urban communities in the two animated videos made in collaboration with COVIDLatino and released in December 2021 and April 2022 on YouTube. The shorts were produced by ASU School for Transborder Studies and Alcaraz's Pocho Villa Productions and aim at raising awareness about vaccines and the need to follow up vaccination with booster shots. The narrative revolves around Super Vaccine Vato—a cholo superhero created by Alcaraz—who engages with Latinx individuals that refuse to get vaccinated and thus endanger their neighbors. He sports a handlebar moustache and wears a typical cholo attire including a bandana, baggy chino shorts, white high socks, and sneakers. The character is a spin-off of Alcaraz's superhero that occasionally appears in his syndicated comic strip *La Cucaracha*. Super Vato is "faster than a speeding Gonzales / more powerful than a vato loco / able to leap tall cholas in a single bound!"; as a play on undocumented immigration, he is "not and alien. He was born in East LA" (Super Vato poster strip, March 19, 2018). He is presented as a relatable code-switching, culturally coded alternative to mainstream superheroes with which Mexican American youth can identify, whose actions are limited to his neighborhood and helping out his peers, at times not entirely legally nor effectively.

Illustration VIII.8: Super Vaccine Vato is eating tacos as he is called on duty



Screenshot from COVID Latino, “Super Vaccine Vato,” YouTube, <https://www.youtube.com/watch?v=Dl5-kmoTBl8>, December 10, 2021. © Arizona State University School of Transborder Studies and Pocho Villa Productions, 2021.

In the COVIDLatino videos, his superhero costume is characterized by the Super Vaccine logo on his t-shirt and bandana, a slightly simplified look and a specific color palette.⁸ Super Vaccine Vato is found at a taco cart (Illustration VIII.8) run by a fellow Mexican—a renowned character of as well—that reiterates the videos’ message by stating that “tacos are life, but you know what? If you ain’t vaccinated, no tacos for you!” (COVID Latino 2022).

Super Vaccine Vato is supported by a chola assistant, who manages the community members’ calls for help (Illustration VIII.9) and whom he displaces on a flying lowrider car decorated with Mexican skulls (Illustration VIII.10).

8 A selection of Super Vato strips can be found on the pocho.com website. The original iteration of the cholo superhero is a take on mainstream US comics heroes played on primary colors (yellow cape, red t-shirt, and blue pants), a classic print bandana, and an S-logo on his chest remindful of Superman’s shield and a police badge at the same time.

Illustration VIII.9: Super Vaccine Vato's female assistant takes calls in the office



Screenshot from COVID Latino, "Super Vaccine Vato," YouTube, <https://www.youtube.com/watch?v=DL5-kmoTB18>, December 10, 2021. © Arizona State University School of Transborder Studies and Pocho Villa Productions, 2021.

Illustration VIII.10: Super Vaccine Vato with his lowrider car and his female assistant



Screenshot from COVID Latino, "Super Vaccine Vato Episode 2: Boosters," YouTube, <https://www.youtube.com/watch?v=whi9IRZEPcA>, April 26, 2022. © Arizona State University School of Transborder Studies and Pocho Villa Productions, 2022.

In the first video, the superhero intervenes to stop unvaccinated tío Rigo (uncle Rigoberto) from participating in a local party and convinces him to get the first dose of the vaccine. Super Vaccine Vato tackles his hesitancy fueled by misinformation by pulling up information on a tablet (Illustration VIII.11) and breaking down data in ways that can be understood immediately. For example, he counters Rigo's abstract underestimation of the risk of hospitalization that is "29 times more likely" for unvaccinated people by offering a different contextualization: he tells Rigo to imagine being 29 times more likely to be bitten by a perro (dog) than his neighbors, turning the imperceptible quality of virus infection into a concrete situation whose possible consequences are clearer to the listener. Likewise, the superhero leverages the man's wish to participate in the carne asada gathering he is excluded from—and that represents a consolidated Mexican American way of bonding—as well as the Latinx hesitancy to deal with healthcare providers mentioned in the previous section. Rigo doesn't "like hospitals" and eventually chooses to be vaccinated; Super Vaccine Vato administers the first shot and issues a vaccination card (Illustration VIII.12).

Illustration VIII.11: Super Vaccine Vato uses data and information to convince Rigo of the advantages of getting vaccinated



Screenshot from COVID Latino, "Super Vaccine Vato," YouTube, <https://www.youtube.com/watch?v=Dl5-kmoTBl8>, December 10, 2021. © Arizona State University School of Transborder Studies and Pocho Villa Productions, 2021.

Illustration VIII.12: Uncle Rigo receives his vaccination card, which allows him to participate in community events



Screenshot from COVID Latino, "Super Vaccine Vato," YouTube, <https://www.youtube.com/watch?v=Dl5-kmoTBl8>, December 10, 2021. © Arizona State University School of Transborder Studies and Pocho Villa Productions, 2021.

The language spoken by the characters is key to the construction of the idea that the narrative takes place in a Mexican American barrio and the linguistic choices are clearly aimed at appealing to a Mexican American audience that can identify or at least recognize the dialect. In particular, Super Vaccine Vato and his chola operator speak Chicano English with an emphasis on its prosody and simple forms of code-switching.⁹ The dialogue is filled with tag (e.g., the use of the words 'órale,' 'güey,' and 'ese') and single noun (e.g., 'abuelas' [grandmothers], 'familia' [family / community], and 'comida' [food / gathering]) switches that represent emblematic switching and are "often heavily loaded in ethnic content" and barely translatable (Poplack 1980, 589). Occasional simple intra-sentential switches are also present (e.g., "vaccines are effective at stopping hospitalization and severe illness, pero [but] guess what?") and a few instances of code-switching between slangs (e.g., "cáele [drop by there], homeboy!"). The type of slang employed reinforces the connection to barrio realities (e.g., 'homie' / 'homs,' 'homegirl,' 'loco') and Latinx neologisms that emerged during the pandemic (e.g., using 'la rona' to refer to the coronavirus).

9 As Otto Santa Ana defines it, Chicano English is an "autonomous vernacular dialect of native-English-speaking" Mexican Americans (1993, 3), influenced by Mexican Spanish and primarily circumscribed to speakers that have grown up in Mexican American contexts (among many, see Fought 2002). Prosodically, it is characterized by a variety of intonation patterns traceable to regional Mexican patterns and a syllabic rhythm similar to Spanish.

In the second episode, Super Vaccine Vato appeals again to *la raza*'s sense of solidarity and social responsibility by promoting booster shots to the students at a local school. The kids fight against the "new villain Omicron" who threatens them inside the classroom and eventually celebrate their victory joining him for tacos. In this case as well, the superhero provides simple explanations about the necessity of boosters: they are "what gives *la raza* the ability to fight Omicron y los variants" and thus, "all kids eligible for el booster should get it as soon as possible." Being directed also at children, the video relies less on slang and more on simple code-switching based on a few words known even to Mexican Americans who are not quite bilingual (e.g., 'escuela' [school] and 'vacuna' [vaccine]).

When the first Super Vaccine Vato clip was relaunched through the WILDsound Festival platform, selected feedback from the public was gathered stressing that it was "really funny," a "clever take," "relatable," "informative," and it "looked infographical" (Wildsound Festival 2022). Despite the diverse selection of interviewees, most of the feedback betrays that the selected audience members were clearly not quite knowledgeable of the Mexican American context—for example, one defines the superhero tentatively as "this Hispanic vato." However, the audience found this type of video effective in making COVID-19-related information "more digestible" and acknowledged that it is "specifically targeting the Latinx community." Humor was recognized as a good vehicle to convey relevant messages in a relatable, engaging way and the pace and animation were overall praised. Unfortunately, no Latinx feedback was recorded and one of the interviewees pointed at the fact that it was made in a "quasi stereotypical way [...]" but it was really funny," failing to either question the use of stereotypes or speculate on possible means of cultural identification for the Latinx viewer.

It is worth noting that Super Vaccine Vato operates a shift of the cholo masculinity paradigm as part of Alcaraz's reversal of the mainstream stereotype. The performance of cholo cultural resistance is often connected to a specific type of gendered coping mechanisms, characterized by the enactment of machismo, criminal affiliation, and overall toughness implicit in everyday life in marginalized barrios. This expression of masculinity gives rise to the criminalized cholo subject exploited by the mainstream imaginary as a paradigm encompassing Chicanos in general, equating overt reclamation of their interstitial heritage with toxic masculinity and gang affiliation. Aggressive and deviant, the "hypermasculinity of the stereotypical cholo" in popular culture is thus often the embodiment of the related Chicane abject identity (Mora 2011, 121) that allegedly emerges from the barrio culture, rather than structural violence and social marginalization. As Fernando Delgado (2000) notes, Chicano masculinity is connected to the transgressive subjectivity projected by mainstream society onto the cultural hybridity intrinsic to Mexican American identity. The performance of Chicane-ness, reclaiming ethnic and class marginalization,

code-switching and using a specifically Mexican slang, is perceived as threatening and implicitly connected to thugs and gangs.

However, it is possible to assert Chicano identity and adopt cholo stylization while distancing from such connections, both challenging the stereotype and evidencing social aspects of cholo culture that are neglected by mainstream representations. Besides their criminal endeavors, gangs that are strongly rooted in their neighborhood facilitate the existence of a support network compensating for the lack of infrastructures and institutional neglect. Few studies look into the positive attitudes towards education and mutual support among Latinx gang-affiliated youth (e.g., van Dommelen-Gonzalez et al. 2015), highlighting the types of social network that can help marginalized individuals to overcome environmental factors and health inequities that makes them more liable to become part of gangs in the first place.

Alcaraz's cholo superhero draws on such notions and the positive aspects of Chicano masculinity that revolve around respect for one's own peers and more vulnerable community members, courage, generosity, and stoicism (Mirandé 1997, 79). Within Latinx communities, defined cultural expectation characterize positive machismo connotating ideal male subjects as supportive, present, dedicated to their family and peers, responsible, and conscious of the importance of education (see Behnke and Taylor 2005). The role of education—whether formal or more in general related to information—is usually key to the construction of barrio representations that challenge the stereotype and tackle the contemporary shift toward less marginalized identities (for example, see Netflix's series *Gentefied*, 2020–2021). Super Vaccine Vato embodies a cholo that protects his community and knows how to deal with its members in an effective way, talking to them in their own terms and leveraging shared beliefs and attitudes. This spin-off of Super Vato redeems to an extent the original superhero's penchant for illegal (albeit usually innocuous) acts and leverages his nature rooted in his community and heritage.

Conclusions

Evaluating the efficacy of culturally specific information is possible and a few studies have proven that, when its creation is accompanied by clear infographics, images, and cartoons, the material is more accessible, appreciated, and efficient in transmitting its message (see De Alba et al. 2021). However, it is impossible to estimate how effective the COVIDLatino cartoons campaign specifically has been, partly due to the lack of related data on the project's website and partly by the type of ramified, word-of-mouth dissemination that characterizes it on social media. Looking at the official accounts, numbers are rather low for an ongoing two-year project and videos haven't been viewed or shared in a significative way, as the project seems to

have remained rather circumscribed and connected to the academic activity of its team.

Furthermore, the content is not exempt from critical aspects. On the one hand, COVIDLatino has tried to address a fundamental gap in the communication of relevant facts, data, and preventive measures directed towards Spanish-speaking communities. On the other hand, Alcaraz's roots in Mexican American urban culture and his lifelong activity in Chicana contexts of cultural production lend his COVID-19-related work a flavor that is inextricable from such background. Albeit certainly closer to their experience than most official and mainstream media information, the cartoonist's work doesn't quite open to other Latinx communities. Despite the effort represented by the other videos proposed by COVIDLatino (including the Mama Lucha character), it might have been fruitful to expand the project's scope to include a more diverse representation of Latinx subjects. If unaccompanied by other narratives, the specific focus of Super Vaccine Vato in embodying the reality of urban Mexican American neighborhoods might come across as limiting the audience it can reach—incurring the risk to flatten even different Mexican American experiences to one, often stereotyped, representation.

However, it is important to stress that the work carried out by COVIDLatino represents the effort to overcome communicative barriers that affect Latinx communities, exposing the problematic relationship between public institutions and minorities that are marginalized and coping with structural violence on a regular basis. Albeit strongly characterized, Super Vaccine Vato embodies a public health superhero that comes across as relatable, entertaining, and engaging, working as a tool to counter misinformation and educate adults and children regardless of their ethnicity.

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Donald Trump's Viral Narratives and Shifting Pandemic Communication

A Search for Playful Affordances (2014–2021)

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Donald Trump has a long history of disparaging (racial) others based on diseases that they might presumably bring to the United States. During the Ebola epidemic in West-Africa (2013–2015), he often tweeted about the threat of Ebola, and regularly expressed the view that any flights from Africa must be stopped, suggesting that West-Africans were consciously trying to sneak the Ebola virus into the United States (Polak 2021, 51). When COVID-19 first became visible on the world stage, Trump initially ignored it (Haberman 2022, 412), and he then blamed China, calling the coronavirus “the Chinese virus,” a term that became a force to be reckoned with in the worldwide surge of anti-Asian racist violence (Wu and Wall 2021, 108). Later, he called the virus a hoax, presumably in response to skepticism about coronavirus measures from his regular support base, while also first hogging and then dividing among the states necessary medical equipment, based on governors’ political allegiances, ‘selling’ on Twitter the false claim that hydroxychloroquine was a proven drug against the disease, as well as floating the suggestion that light or disinfectant might work to combat it (Haberman 2022, 424). On the campaign trail, he regularly mocked Democratic candidate Joe Biden’s careful avoidance of crowds and mask-wearing, but after he had himself contracted the disease, argued that he had been to “the real school” of the coronavirus and was therefore the presidential candidate best equipped to deal with its challenge (Klar 2020). He also prepared for a reemergence from the hospital in a Superman costume, or at least circulated the persistent rumor that he wanted to do so (Polak and Zwetsloot 2022, 377).

As a result of these often seemingly contradictory antics, President Donald Trump’s behavior in response to the COVID-19 pandemic throughout 2020—the period when the pandemic first raged in the United States, and the final year of his presidency—has often been described as flippant, unpredictable, and ineffective (Bump 2020). While it was all of those things, I want to argue here that it is helpful to understand his shifting responses over the year, as the situation changed, in the context of *play*, and particularly, in terms of *playful affordances*. Trump was, I

will show, consistently looking for possibilities within the given situation to draw attention to himself and to assert his superior position vis-à-vis any perceived opponent. Rather than, as one might expect, combating the pandemic, Trump perceived himself, and behaved, as if he were engaged in a fiercely competitive game for attention and superiority in which the pandemic played a role as one of the gameable challenges in play, but in which fighting it was not the only or even primary aim. Rather, 'winning,' broadly but always personally, and being seen as such by his supporters, was key. Fighting the pandemic occasionally offered a means for doing so—as he had in the past employed pandemics to proclaim his superiority—but was hardly the focus of his response. Instead, he played to win, in a broadly intuitive sense: personally, to appear healthier, better, richer than, and dominant over others, as a president up for reelection, to get good rankings (polls, approval ratings, treatment in the media), and—as is central to play—for its own sake, and to engage other players, a reflex that Trump had shown for decades. A key element in Trump's pandemic play became the notion that so much around managing the pandemic (in terms of policies and safety measures) became politicized. And thus, in the US's polarized political landscape, spectacles of disruption and grotesque disorder could easily work to his advantage too. I will study Trump's manner of playing with the pandemic in terms of affordances, focusing particularly on the affordance of 'fuck-up-ability'—the perceived potential of action that Trump played with especially effectively. As James Gibson, who introduced and popularized the concept of affordance defines it, "[a]n object's affordances are the 'possibilities of acting' that we perceive when we look at it" ([1979] 1986, 160). The idea that an affordance is perceived is very important, since it understands affordances as fundamentally relational and more than just 'objectively given' possibilities of action offered by the environment. Gibson's 'affordances' refers to both the environment and the human at once, the physical (part of the world of matter) as well as phenomenal (part of the world of the mind) ([1979] 1986, 160).

I will show that a central affordance that Trump perceived and employed in his pandemic play to gain personally as a politician, both long before and during his presidency, was the affordance of 'fuck-up-ability,' the possibility of acting that allowed him to spectacularly and cartoonishly mess up 'serious' politics and management of a public health crisis. The term 'fuck-up-ability' may seem unduly frivolous; I employ it nonetheless, to emphasize both the seemingly trivial, playful and autotelic motivation of Trump's bumbling, and also the serious political effects and implications of political leadership that is not interested in effectively managing a crisis.

Play and Playful Politics

Play is fundamental, not just to human beings, but to life in general. Play is also a notoriously difficult concept to define. The game of finding a form of play that does not fit within a given definition yet is undeniably play is never far away from efforts to come up with a set definition. Benchmarking inevitably invites attempts at circumvention, and voilà: play. One effect of this is that play can easily come to be anything, with the effect that the concept also loses its explanatory power. Nevertheless, a key element of play, and playful modes of being more broadly, is to try out what is possible. Miguel Sicart argues in *Play Matters* (2014) that this very basic and fundamental notion of play and playfulness means that play is not something *in* or *of* culture, but that it is much more universal to life. To live, species constantly have to seek out and generate all kinds of affordances, and this search is both a matter of survival and one of play, dismantling the common 'work versus play' or 'survival versus culture' binaries.

Put this way, everything, including turning a courtyard into a playing field by playing football, urban gardening, primate colonies, industrialization, and capitalism could all be understood as play and as key elements in survival—a serendipitous, creative, and adventurous journey to see how and where one can grow or move towards. Play, as well as life itself, then, is a constant search for affordances. This is problematically broad as a definition of play. However, Sicart's assertion that play is a "mode of being in the world" (2014, 70) actually does seem particularly apt to describe Trump, although perhaps Sicart had a more creative notion of play in mind than Trump seems to embody. However, the idea that play is a mode of being in the world—a kind of openness to playful engagement—is a helpful point of departure, even if it is somewhat vague. How Trump played with COVID-19 and the pandemic's narratives and fictions was determined in large part by his very basic attitudes and mode of being. In particular, his attitude seemed to be defined by a focus on competition rather than a broader, more open-ended playful engagement with his surroundings and position. So, from the outset, I would like to engage three further concepts of play: Roger Caillois's notion of "agon" as the (presumably level) playing field that sets the stage of a competition for dominance within the set rules of a particular game ([1958] 1961, 14); Eugène Fink's (1960) notion that play inherently generates *Spielraum*, a term that refers to both the literal English translation 'play space' and also to 'leeway' or 'wiggle room' (see translators' note 2016, 11); and Johan Huizinga's (1938) famous idea of "the magic circle" (toverkring) as the constitutive locus of play. I will briefly unpack each of these concepts and relate them to instances of how Trump played with and around COVID, and then employ them to enter into a discussion of Trump's seeking and use of playful affordances during the pandemic.

In *Man, Play, and Games* (1958), Roger Caillois, building on Huizinga's very broad definition of play, took up the challenge to classify different forms of play into four

categories: *agon* (in which competition is dominant, such as football and chess), *alea* (which revolves around chance, such as lottery and roulette), mimicry (which centers on simulation, such as playing house), and *ilinx* (in which vertigo is key, such as rapid whirling). These are to be understood as four ‘quadrants’ of play (Caillouis [1958] 1961, 12–13). Caillouis particularly explores the notion of *agon* as play that is competitive and that, premised on equal conditions for each player and unequivocal and strictly enforced rules of engagement, will allow the best player to win. The politicization of play often involves the fact that the playing field is usually not level at all, and that while the rules of engagement might seem equal for all, they are in fact determined in part by categories such as gender and class.

For example, when Trump, in October 2020, ‘battled’ and then ‘conquered’ a bout of COVID-19, this was often framed in terms of sports metaphors, not least by his own campaign, which routinely disparaged Biden’s purported ‘weakness’ in trying to avoid infection through masking and social distancing. This framing of the disease and infection risk is clearly agonistic in the Caillouisian sense, but the playing field is not level. When Trump was treated for COVID-19 in the Walter Reed National Military Medical Center, the care he was given included experimental treatments not available to anyone else (Walker 2020). In a national context in which many people had limited access to healthcare or even sick days, any suggestion that Trump’s ‘victory’ over the virus was a matter of personal merit within a competition against Biden (who avoided the disease) must be understood as an attempt to make a political point through the suggestion of *agon*. This politicization of competitive play can be linked to Chantal Mouffe’s (2000) notion of agonism, by which she means political engagement with opponents within the circumscribed boundaries of democratic politics. Like Caillouis, Mouffe derives this word from the Greek ‘*agon*’—conflict, struggle, or contest—but rather than focusing on the play aspect of contest, she emphasizes political struggle. Whether Trump’s playing with the coronavirus actually stayed within the politically agonistic, or really veered into antagonistic territory—and became disruptive of political agonism (i.e., the political struggle between opposed interests) remains to be seen.

One factor that is important in answering that question is what the boundaries of the ‘normal’ political field are. Play generates *Spielraum*, Fink argues. On the most literal level, this is obviously true: once we are kicking a ball around a particular space, that space becomes our playing field. Creating such *Spielraum* through play is neither trivial nor free of risk, largely because this is (also) about claiming space, and occupying space in such a way that the game played there is dominant. If, for instance, a group of white, male Trump supporters ostentatiously ignore local mask mandates in grotesque, and therefore mediagenic and meme-ify-able displays of protest (as was, for example, the case when hundreds of protestors assembled in Michigan’s state capitol on April 30, 2020), they are not just creating play space to enact their defiant stance, but they are also seeking to create additional wiggle room

for themselves within public space regulated by coronavirus measures while forcing at-risk others out of the space.

As such, this behavior drives other players off the playing field and effectively undoes the *agon*, including the agonistic model of politics that Mouffe uses the term for, while simultaneously creating play space on another level. This is an example of antagonistic play by Trump supporters—not Trump himself—that does indeed disrupt the long-established, democratic playing field, albeit in a fashion that does resonate on several levels with equally long-established American principles, such as white men's entitlement to bodily autonomy and freedom of expression.

Johan Huizinga in *Homo Ludens* coined the term 'magic circle' to describe more or less the same as what Fink calls play space (although Huizinga's notion is less clearly political): a magic circle is an (often imaginary) world that is played into being. If a group of people (or just one person, really) play that a particular space is their castle, then, within the game it is their castle. They will still know that it's *not really* a castle, but the reality of the game is superimposed on the material world as long as the game lasts. Once players (or even just one of the players) decide to quit the game, the castle no longer exists, although it may be reconstituted after the quitter(s) have left. On the other hand, a magic circle that is consistently sustained may easily come to change the shape of previous realities. If the castle, as in the example above, is really a statehouse, and therefore has some resonances of being a castle, or at least a seat of power—indeed also *the occupiers'* seat of democratic power—the wiggle room lies in the question to what extent they are agonistically or antagonistically occupying the castle. This kind of play in and with magic circles could often be seen, among Trump supporters, but also by Trump himself, for instance, in his suggestions for ways of 'imaginatively' solving the crisis, for example by denying its existence, by doing fewer tests in order to achieve 'better' statistics, and by suggesting bogus cures (Haberman 2022, 424). All of these interventions on the one hand may have exacerbated the scientific reality of the pandemic's impact, and on the other hand, within the magic circle of Trump and his supporters, made the problem 'disappear' or shift into the older and more familiar agonistic game of combatting the Democrats.

Before moving on to a discussion of the different playful affordances that Trump and his supporters found in their various strategies of playing with and in the pandemic, I want to emphasize that, of course, combating a virus outbreak itself—i.e., limiting the spread of the virus, finding vaccinations, or trying to forge group immunity—can be viewed as a game of sorts (a game that has over the last few years found and generated all kinds of affordances), but this was rarely what Trump engaged in personally, although federal agencies under his command, such as the American Centers for Disease Control, and other federal and state agencies did. Instead, Trump played mostly with *outbreak narratives* (Wald 2008), and in doing so he often played with the specific affordances of such narratives.

Playful Affordances

Here, I want to briefly unpack the concept of *affordances*, in order to bring some clarity to the kinds of affordances that are at stake here. James Gibson's original notion of affordances was very much tied to the material world. Moving from surfaces to affordances, Gibson explains:

The *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or ill. [...] If a terrestrial surface is nearly horizontal (instead of slanted), nearly flat (instead of convex or concave), and sufficiently extended (relative to the size of the animal) and if its substance is rigid (relative to the weight of the animal), then the surface *affords support*. It is a surface of support, and we call it a substratum, ground, or floor. It is stand-on-able, permitting an upright posture for quadrupeds and bipeds. It is therefore walk-on-able and run-over-able. ([1979] 1986, 127)

This notion has become very important in design, which often revolves around creating specific affordances, such as 'sit-ability,' rather than objects, such as chairs, as well as in digital media and game studies. Gibson sees an affordance as more relational and more about the combined interactional agency of human and environment than, say, a tactic, possibility, method, approach, strategy, or, from a more sociological standpoint, a habit. An object's affordances are the possibilities of acting that we perceive when we look at it. The 'perceive' here is important, as it indicates that affordances are not 'objectively given,' but a product of perception.

During the occupation of the Michigan State House on April 30, 2020, in protest against the state's mask mandate, viral photos showed white men presumably screaming in the faces of white security officers wearing face masks in accordance with the mask mandate. A photo taken by Jeff Kowalsky focuses on a bearded man who takes on an intimidating pose. His fanatical gaze, forward-leaning posture, and open mouth suggest he is very angry, and he stands well within the 1.5-meter range of social distancing rules, without wearing a mask, thus putting at risk the guard opposite him, at a moment when there was hardly any treatment available for COVID-19 yet. The state house afforded the protesters all kinds of material options (including the surficial affordances Gibson mentioned, such as stand-on-ability and walk-on-ability), but the more obvious affordances of the space are material in a different, more implicitly political way and many are entirely social, political, or playful, without being tied primarily to the material circumstances at hand. One example of the first kind (material affordances that are really political affordances that are being brought into play by the protesters) lies in the fact that the protesters are able to enter the building as a crowd, unmasked and without social distancing, and are able to come into short range of the guards. Here, their freedom to protest

and the coronavirus measures work against each other, but the democratic right to enter government buildings and to protest wins out, despite the fact that this means the guards may risk infection. An example of a political affordance of the situation is the protesters' whiteness; it is entirely possible that this is a key factor in allowing the clash of opposing freedoms and interests to bend in the protesters' favor. A few weeks later, the murder of George Floyd set off massive Black Lives Matter protests that were, also in Michigan, met with far less equanimity by law enforcement (Kishi and Jones 2020).

As noted, looking for possibilities and *Spielraum* is essential to play, and the statehouse in which it was taken and the uniformed, masked policemen, in part because of their composure and official nature, have a certain kind of 'dethronability.' Because of their correctness and officialdom, there is a great deal of potential dramatic effect in soiling and humiliating them, not personally, but as political commentary. The administrative and parliamentary setting, next to affording respect and democratic deliberation, because of its presumption of democratic agonism, also has the inherent political affordance of fuck-up-ability. This is both an invitation to play in a crude and antagonistic way and a highly political affordance, which has driven the alt-right as well as anti-coronavirus measures crowds throughout the pandemic. These political and institutional affordances clearly included specific affordances to racist actors, both as mentioned above, because they employ whiteness as a received sign of dignity and absence of threat, but also because the coronavirus first came from China. As such, the pandemic, and its framing by Trump, among others, afforded a setting for racist conspiracism.

While neither this protest against the coronavirus measures nor Trump's racist framing of the pandemic was necessarily playful, both responses to the pandemic share a focus on finding affordances to deal with it without losing any of the *Spielraum* that the subjects created before the pandemic, which the pandemic or the measures to deal with it might curb. As noted before, play, in general, has the ability to bring out affordances that might not have been obvious at first, and this is even more visible through online playing. Online, it is possible to find and employ immaterial affordances and play spaces that might be less visible or usable offline. The image referred to above is a striking press photo, with all of the affordances such mediations carry (such as evidence of the event's occurrence and a basis for identifying the people in the photo), and it is also, because of its grotesque imagery, a very suitable basis for an internet meme. It has the affordance of meme-ify-ability, which is crucial for its life on social media platforms.

The field of game studies has expanded the kinds of affordances under consideration, because social media platforms and video games may construct or represent things like stand-on-ability and walk-on-ability, but they are not terrestrial surfaces at all. When a door or window is locked or boarded up in the terrestrial world, it remains visible, and so retains some affordances, even if they are not 'climb-through-

ability' or 'see-through-ability,' but when a door in a video game is removed, there is no way to know that there even was one, and no signal that there still is another space behind the wall. On social media platforms, the affordances for interaction are decisive for the character and atmosphere of a platform (Gekker 2019, 406). This includes things like message length, ability to repost, 'like,' 'love,' bookmark, vote up or down other messages, 'friend' or follow other users, scroll endlessly, and all the other things that can and cannot be done on a specific platform, given their (im)possibilities and rules (and if/how they are kept and monitored). Becoming accustomed to seeing and using these kinds of immaterial media affordances is a key element of online play, and the availability of press photos that are meme-ify-able, in combination with platforms that afford their circulation and mutation, has played a central role in playing politics during the pandemic. In the following section, I will focus more narrowly on Donald Trump's role in finding and using these affordances, via a short detour into the relatively recent past.

Ebola, Corona, and Traditional Outbreak Narratives

Trump has a long history of being able to spot and exploit racist affordances of disease outbreaks on Twitter and in other media. When in 2014, Trump—well before officially becoming a candidate for the Presidency—started to tweet actively about the Ebola outbreak in West Africa, he followed the classical playbook for outbreak narratives first analyzed by Priscilla Wald in *Contagious* (2008). His discourse, through over a hundred tweets, mostly sent in October 2014, was heavily invested in a traditional narrative, which framed the disease as something to be 'kept out' through border control. On July 31, 2014, he tweeted, "Ebola patient will be brought to the U.S. in a few days—now I know for sure that our leaders are incompetent. KEEP THEM OUT OF HERE!" (Trump 2014a). A total of two people died of Ebola in the US during the entire outbreak, which lasted until the end of 2015—both of whom had contracted the disease in Africa. There is no reasonable argument that the US government's domestic response to the epidemic was anything but competent and effective (Hasian 2016). However, the tweet recast the issue so as to frame it in political terms: 'soft' leftist leaders cannot say no and will thus expose Americans to Ebola as part of their longstanding inability to keep out foreigners, however 'soiling' or harmful they are to America's inherent cleanliness.

Two months later, Trump went a step further by identifying a super-spreading 'Patient Zero,' who, with allegedly malign intentions, tried to travel into and within the US while contagious. On October 2, 2014, Trump tweeted, "The Ebola patient who came into our country knew exactly what he was doing. Came into contact with over 100 people. Here we go—I told you so!" (2014b). Like the previous one, this tweet followed the classical narrative in which an epidemic is framed as an attack from

the outside, initiated by racial 'others,' who are projected as enemies trying to enter the 'pure' home country in order to 'soil' it with their disease, which is implicitly connected to their otherness and inhumanity. Yet another follow-up tweet connected the implicit anti-African racism of the first tweets to the US's first black president, whose legitimacy Trump had long been invested in interrogating through the racist Birther Conspiracy. On October 15, 2014, he tweeted, "President Obama has a personal responsibility to visit & embrace all people in the US who contract Ebola!" (Trump 2014c). This flips around the previously implied vector from racial otherness to posing an infection risk: Obama would have to bodily embrace people with Ebola, in order to contract it too, presumably in retribution for having been 'responsible' for bringing it into the United States.

The same could be seen in the early days of the COVID-19 pandemic, termed "the China virus" by Trump: the virus was all that is 'not-us.' This time, the racial animosity was directed against China, and Asians more broadly, rather than against (West) Africans, but the pattern was the same. This time, to prevent the virus's spread, many flights were actually stopped globally, while simultaneously a massive conspiracy theory machine started to churn out narratives that faulted allegedly ill-intentioned Chinese laboratories and markets where 'strange' animals were sold for consumption, including, supposedly, bats that could have spread the virus. Each of these narratives or topoi ('the virus was lab-produced by evil scientists,' 'exotic eating cultures cause disease,' and 'vampire-like vermin are spreading this thing') are classic outbreak narratives (Wald 2008, 31). They simultaneously dehumanize the carrier and frame the virus as outlandish and far removed from 'us.' At the same time, there was a rise in resistance against any and all coronavirus measures, particularly against the mask mandate, and a host of conspiracy beliefs that suggested that the virus was itself a hoax, brought into the world artificially, or even purely as a fiction, to rein in and control free people. This narrative caught more traction with the development of a vaccine by the end of 2020, because it was paired with pre-existing vaccine skepticism.

Trump played several sides of this game, often more or less simultaneously. He blamed China for the debacle, suggesting that the virus might have been a malign invention on the part of Chinese state actors while also playing down the virus's threat and framing politicians' anxiety about it in the US as Democratic weakness and pearl-clutching. Known for having mysophobia (fear of contamination), Trump was both personally inclined to play up and socially and politically motivated to play down the coronavirus's risks. As we have seen, during the Ebola epidemic (and other epidemics, like SARS, MERS, and Zika), Trump had been invested in emphasizing and capitalizing on the risk for American public health as part of a xenophobic agenda as he implicitly paired medical hygiene with its white-supremacist metaphorical counterpart of racial hygiene, already summed up in that

first Ebola tweet: “KEEP THEM OUT!” The real threat of the coronavirus afforded the reinvigoration of the same age-old dog whistle: foreigners carry disease.

But as the COVID-19 pandemic reached all corners of the world, including the United States, which for months was the country where the disease was most prevalent, and where the numbers of dead were the highest in the world, Trump had to embrace the other extreme—that COVID-19 was actually not that serious a threat to Americans—as well. The possibilities to shelter in place, work from home, and isolate when sick were very limited for large numbers of people in a country where only an elite of white-collar workers have good health insurance, financial back-up to miss working days, and the security that staying home in case of possible infection will not cost you your job. Therefore, Trump denied the disease’s seriousness and, particularly, the need for far-reaching measures to combat the pandemic. Moreover, many of the state governments’ coronavirus measures, and those adopted nationally in other countries, reached very far into the private sphere, which is a centuries-old taboo in mainstream American culture, most certainly among Trump’s support base. Thus, Trump moved constantly between different alternative realities that were mutually exclusive, except as different magic circles stacked on top of each other. Gaming the coronavirus, for Trump, was not about fighting the disease but about keeping the upper hand in terms of the upcoming elections, and all the other political games and power play he was involved in (Caillousian *agon*). To forge *Spielraum* in that process, he needed to flit back and forth between magic circles. This was, effectively, a new affordance he had found for dealing with the pandemic, that he did not yet perceive in dealing with Ebola—or Covid, initially—when he stuck to the old pandemic affordance of mobilizing the virus scare for ostracizing racial others. For instance in press conferences alongside Dr. Anthony Fauci (director of the National Institute of Allergy and Infectious Diseases, NIAID) and Deborah Birx (a member of the White House communications team, but also a scientist and a medical doctor), Trump would take extreme liberty with the facts of the pandemic. In doing so, he simultaneously forced them to effectively condone his nonsense, and he vindicated, on behalf of a considerable part of his own support base, the experts and scientific elites, while also offering a massive amount of ‘meme fodder’ for his fans and detractors alike.

This ability and willingness to embrace a variety of—at least in logical terms—mutually exclusive narratives at the same time is part of the outrage Trump excited amongst opponents, and yet, this very outrage was part of the game. As Johan Huizinga wrote in *Homo Ludens*,

The spoil-sport breaks the magic world, therefore he is a coward and must be ejected. In the world of high seriousness, too, the cheat and the hypocrite have always had an easier time of it than the spoil-sports, here called apostates, heretics, innovators, prophets, conscientious objectors, etc. It sometimes

happens, however, that the spoil-sports in their turn make a new community with rules of its own. The outlaw, the revolutionary, the cabbalist or member of a secret society, indeed heretics of all kinds are of a highly associative if not sociable disposition, and a certain element of play is prominent in all their doings. ([1938] 1949, 12)

Trump is a spoilsport who has in a very ludic manner created a community with rules of its own—also already before the pandemic, and to a large extent through both the affordances of social media and the affordances of the white supremacist and exceptionalist narratives he tapped into before the pandemic as well as later. In 2020, during the pandemic as well as his run for reelection, he added several other outbreak narratives to his repertoire and played with these all at the same time, a feat that, within the realm of more traditional representative democratic politics, should have been impossible. The necessary friction between opposing narratives, according to Chantal Mouffe's (2013) understanding of agonism in politics, is made untenable and ridiculous if the president embraces different positions at the same time without consistency.

However, Trump acted not just as a spoilsport within the traditional agonistic game of politics, but he went on, in Huizinga's phrase, to "make a new community with rules of its own," a community that revolves around the affordances of social media play, in which embracing a variety of meme-ify-able stances simultaneously or in quick succession is perfectly acceptable. This is not a magic circle entirely of Trump's own making: as we have seen above, the narrative in which white American men are particularly entitled to play the game of democratic rule in whatever way best suits their interest has been widespread, if implicit, in American culture for centuries. Moreover, the affordances of social media platforms, Twitter in particular, include the ability to make malleable all kinds of evidence (including photographic evidence). Reposting something without its original context but overlaid with a new element, filter, or interpretation is a basic affordance of most platforms (Phillips and Milner 2021, 186–87). This also enables the production of memes, image-text hybrids that are usually generated by amateurs, aimed at entertainment, and snowballing across platforms while constantly taking on new meanings (Shifman 2013). It might well be that Trump, through his Twitter activism during the Ebola pandemic in 2014, got the hang of stoking racist outbreak panic online and in 2020 played the same game in a bigger fashion by not just tapping into old outbreak narratives but also by embracing the fact that no consistency is needed within this type of digital play.

Meme culture, as well as Donald Trump in personality and style, are interested in seeking the affordance of fuck-up-ability, in part because that is where their humor and attraction primarily resides, but also because this 'take-down-the-system' sensibility really fits the political moment, with doubt in traditional institutions at a historical low (Pew Research 2022). What in improvisation theater is termed 'finding

the game' (i.e., coming to an unspoken agreement about the parameters of a scene that is improvisationally enacted) is something that Trump is very good at (unlike other aspects of politics), and this process of finding the game is profoundly a matter of play, and of seeking new affordances. It is also, as indicated, a meta-game of sorts, in the sense that it is engaged with forging new rules, or with forging rules that may never be stabilized to the point that they will apply equally to all players.

Conclusion

So, early on in the pandemic, Trump embraced essentially the same outbreak narrative as he did with Ebola, and as was widely embraced in the 1980s around HIV/Aids: the virus was an attack from the outside, perpetrated by malignant or indifferent, contaminated alien others (Wald 2008, 223). In the spring and early summer of 2020, as the US was wrecked with record numbers of coronavirus cases and deaths, this narrative had to change. Trump, in the spring of 2020, would simultaneously take credit for respirators that the federal government had organized, insistently advertise the antimalarial drug hydroxychloroquine as a cure for COVID-19 (despite a lack of scientific evidence of its effectiveness), and claim that states, and implicitly people, needing any of these things were losers who could not fend for themselves. This was, of course, inconsistent and opportunistic, but not on a metalevel: by 2020, inconsistent and opportunistic were Trump's best-known trademarks. Indeed, Trump's playful, take-room-where-there-is-any fashion fit perfectly with not just his persona but also with the section of the US electorate that supported him most ardently, and with the classical US American self-image of being entrepreneurial and cowboy-like.

This new attitude, of downplaying the disease's seriousness, and the federal government's responsibility to deal effectively with the crisis, while simultaneously playing up Trump's own role as a cartoonish pandemic wizard—advising not only hydroxychloroquine but later also disinfectant and light treatment to 'cleanse' the body of COVID-19—came to a head in October 2020. At the height of his reelection campaign, while consistently engaged in employing all the possible affordances of the fact that his opponent Joe Biden was even older than Trump himself and was taking a host of coronavirus measures in his own campaign, Trump contracted the disease himself, and, as mentioned in the introduction, bent this situation into a possibility to emphasize his supposed role as coronavirus-slaying superhero.

The flexibility here is not limitless. The Superman-cowboy-badass frame is one that Trump cannot actually leave, as became clear when he told a rally audience that he himself was vaccinated against the disease (Smith 2021). This did not motivate his supporters to do the same, and earned him boos rather than applause. By tuning in to narratives and narrative frames that his supporters were open to, Trump rode

a wave—that is still there, even if he is now no longer as visibly riding it—and he in part also made and shaped the wave, though his control of it is rather limited. The pandemic, and particularly his own communication in and about it, is a game that plays him, as much as the other way around.

This may be illustrative of a very general conclusion about the Trump presidency, and his negotiation of circumstances that were already there, that he rarely managed to materially change. Trump's pandemic communication brought into focus deep cultural narratives that already existed, initially a traditional outbreak narrative and later a collection of newly mobilized old themes. Trump has playfully mobilized these to his advantage wherever possible and gained through doing so (perhaps almost as much as he lost by not actually intervening more effectively in the pandemic), but he is not in control. A pre-existing movement has found him, and he grotesquely performs its moves, not vice versa.

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Confronting and Assuaging Pandemic Anxieties Through Horror Media in Christina Henry's *The Girl in Red*

Alena Cicholewski

During the COVID-19 pandemic, many people read fiction as a leisure activity. Surveys from Canada, China, India, and the US suggest that a considerable number of readers even increased the number of books they read compared with before the coronavirus outbreak (Parikh et al. 2020, 2). While some readers preferred “delightful, lighthearted, and frothy feel-good good books” (Nicolaou 2020), others confronted their fears by resorting to novels whose plots feature fictional pandemics, such as Emily St. John Mandel’s postapocalyptic tale *Station Eleven* (2014) and Stephen King’s horror novel *The Stand* (1978). In line with scholars who have linked consuming media associated with the horror genre to a greater degree of resilience when it comes to coping with the challenging circumstances of the COVID-19 pandemic (Scrivner et al. 2021, 5–6), this chapter argues that reading horror fiction holds a particular appeal during uncertain times—a potential that is also self-referentially addressed in horror texts, as my analysis will show. Building on the work of Xavier Aldana Reyes, who considers horror fiction “a form of cathartic entertainment” that “channels social fears” and shows “how we should respond to and manage them” (2016, 10–12), I analyze Christina Henry’s 2019 novel *The Girl in Red* to illustrate how readers might find solace and inspiration through consuming horror fiction during moments of crisis. I argue that *The Girl in Red* presents its readers with two different ways of coping with existential crises: while it starts with an individualistic approach exemplified through its employment of the common horror film trope of the Final Girl, the novel moves toward a more community-centered approach in its second half. Reading the novel after the 2020 outbreak invites readers to see parallels between the novel’s pandemic and COVID-19, providing them with a specific narrative framework within which to position their own experiences. This contribution accordingly focuses on how the novel imagines responses to a pandemic and its aftermath. Through selected close readings of *The Girl in Red*, I show how the novel first celebrates the empowering qualities that the Final Girl trope offers for protagonist Red before exposing the limitations of

such individualism and discarding it in favor of a community-centered approach. Although her consumption of horror media increases the resilience of Henry's protagonist, this chapter cautions against jumping to conclusions about transferring this insight to the readers of *The Girl in Red*, as my cursory glance at some reviews will demonstrate.

Henry's *The Girl in Red* is a loose re-telling of the fairytale of Red Riding Hood. After a pandemic has devastated the United States and caused the deaths of her parents and her brother, the protagonist Red (short for Cordelia)—a queer woman of color in her early twenties with a prosthetic leg—is fighting her way through a postapocalyptic landscape in an attempt to reach her grandmother's home.¹ The novel was published before the start of the COVID-19 pandemic, but its representation of the diegetic 'Crisis' seems to anticipate eerily the early days of the COVID-19 pandemic, as Red desperately tries to convince her parents to take the threat seriously, people fight over scarce resources, and racist (and misogynist) violence erupts. In the novel, Red's passion for horror films and books helps her make sense of what is happening and prepare for her journey, akin to Coltan Scrivner and his co-authors' insight that "experience with particular kinds of fiction, namely, horror and pandemic fiction, would be associated with better preparedness for and psychological resilience during the COVID-19 pandemic" (2021, 5). Through its self-referential style, *The Girl in Red* plays with this idea by representing its protagonist as an avid consumer of horror media whose knowledge of the genre improves her survival skills when confronted with the Crisis, on the one hand, and by pointing out the limitations of using a horror-informed framework as a basis for action, on the other.

Combining an analytical framework informed by cognitive narratology with horror studies, this chapter uses Henry's *The Girl in Red* as a starting point for further reflections on the potential of consuming horror media as a coping mechanism during stressful situations such as the COVID-19 pandemic. Since cognitive narratology has become an umbrella term for diverse types of "research on the mind-narrative nexus" (Herman 2013), I will first clarify which particular concepts I am using here, before turning to horror as an affectively defined genre.

As "readers' accumulated memories have a substantial impact on their narrative experiences" (Gerrig and Mumper 2017, 239), large-scale crises such as the COVID-19 pandemic influence the reception of certain narratives. Richard Gerrig and Micah

1 In this chapter, I use the term 'postapocalyptic' as a pragmatic shorthand to describe a place where public order has collapsed. In particular in the US context, "Black and Indigenous Studies posit the notion that colonization and imperialism constitute an unrecognized apocalypse through genocide, slavery, and the compulsory displacement of an indigenous population" (Montgomery 2021, 7). In *The Girl in Red*, the postapocalyptic setting is marked by an escalation of racist and misogynist violence.

Mumper provide an analytical framework for exploring text-reader interactions. Their concept of ‘construction’ “refers to the activation of information from the text as well as from readers’ related knowledge” (2017, 240). While the type of ‘related knowledge’ (i.e., familiarity with genre conventions or expertise in the topic of the text) that each reader possesses differs greatly from individual to individual, the COVID-19 pandemic has led to increased availability of publicly accessible information on topics such as the transmission of airborne diseases. Additionally, the pandemic also made specific social experiences such as feelings of isolation or worry about infecting loved ones with a serious disease available to wider sections of the population. Readers’ related knowledge also has an impact on their sense of immersion—Gerrig and Mumper use the term ‘transportation’ to conceptualize the extent of a reader’s immersion in a narrative, which depends on familiarity with characters or situations, perceived similarity to oneself, and suspense, among others (2017, 251–53). The aspect that is particularly relevant to my following analysis is familiarity. Building on my earlier elaboration on how the COVID-19 pandemic expanded each reader’s related knowledge, it also increased familiarity with some of the (less extreme) pandemic-related situations depicted in *The Girl in Red*, such as empty supermarket shelves due to panic-buying or wearing PPE to protect oneself from airborne pathogens. *The Girl in Red*’s horror fan protagonist is an interesting case in this context, as her familiarity with conventions of the horror genre is both emotionally comforting for her and beneficial in a very practical sense that connects Gerrig and Mumper’s more general research in cognitive narratology to studies that focus on the horror genre exclusively.

Horror, as a genre that “is affectively defined” (Clasen 2017, 12)—specifically by creating feelings of fright, disgust, and/or distress and accompanying bodily sensations such as an accelerated heart rate, sweating, and/or shortness of breath in the audience—seems to be particularly well-suited to explore how fiction can work to confront and assuage readers’ anxieties. While horror fiction enables readers “to find pleasure in make-believe that allows them to experience negative emotions at high levels of intensity within a safe context” (Clasen 2017, 5), even among horror fans, there are differences concerning how horror media are consumed (Scrivner et al. 2023, 88). Scrivner and his colleagues differentiate between three distinct types of horror fans: thrill-seeking ‘Adrenaline Junkies,’ who experience the fearful affects evoked by horror media as enjoyable, fear-minimizing ‘White Knucklers,’ who do not enjoy the immediate sensations but perceive engaging with such content matter as a chance for personal growth, and ‘Dark Copers,’ who unite aspects of both previous types, using horror media as a tool for both immediate “excitement and existential coping” (2023, 94). Thus, what sets horror apart from other genres is this specific set of recipients’ interactions with it as a genre. These interactions encompass both cognitive and emotional facets (Cheyne 2019, 28–29).

The novel's protagonist, Red, falls into the category of what Scrivner and his colleagues classify as a Dark Coper, as she derives pleasure from consuming horror media while simultaneously regarding them as a means to coping with her fears and as facilitating self-improvement. Red's way of interacting with horror media ties in with Ria Cheyne's observation that the horror genre "aims to produce a range of discomforting affects, the experience of which is paradoxically pleasurable" (2019, 29). Among the range of tropes that horror media use to create these paradoxically pleasurable sensations, the concept of the Final Girl is particularly relevant for this chapter. Coined by Carol J. Clover in 1987, the Final Girl describes "one female character [in slasher films] who, while being chased, wounded and cornered by the killer, is forced to endure the trauma of encountering the mutilated bodies of her friends long enough to either be rescued or slaughter the killer herself" (Paszkievicz and Rusnak 2020, 1). The Final Girl's typical character traits are "smartness, gravity, competence in mechanical and other practical matters, and sexual reluctance [that] set her apart from the other girls and ally her, ironically, with the very boys she fears or rejects, not to speak of the killer himself" (Clover [1992] 2015, 40). Clover locates the potential for male viewer identification in the Final Girl's presumed boyishness ([1992] 2015, ch. 1). In the decades since the publication of Clover's text, the concept of the Final Girl has proved fertile for (particularly feminist) scholarly discussions of the horror genre, and over the years the trope has transformed into a polyvalent cross-media phenomenon (Paszkievicz and Rusnak 2020, 2–3). My following analysis of *The Girl in Red* will bring the Final Girl into dialogue with the cognitive approaches outlined above to illuminate the potential functions of reading horror novels in pandemic times.

Red as a Final Girl

The Girl in Red starts in medias res: "somewhere in an American forest" protagonist Red is approached by a male stranger while preparing a meal over a campfire. Red immediately identifies the man as a threat who considers her an easy target because she is a young woman with a prosthetic leg traveling alone: "No doubt he'd raped and murdered and thieved plenty since the Crisis (she always thought of it that way, with a capital letter) began" (Henry 2019, 9). Since readers share Red's perspective, their first impression of the unnamed male character is shaped by Red's affective response to him. This strategy is typical of the horror genre, as characters "exemplify for us how to react to the monsters" (Carroll [1990] 2003, 17). Red's reaction to the man leads readers to ascribe monstrous qualities to him. In contrast to horror traditions that often feature marginalized people in the role of monsters—particularly those who are (like Red) queer, disabled, people of color, women, or any combination of these traits—the white heterosexual man whom Red encounters conforms to

the monstrous incarnations of “[t]wenty-first century horror [that] is replete with monsters that yearn to shore up inequitable systems of power, often harking back to a sense of order and tradition that is in the process of vanishing” (Keetley 2022, 191). Joshua Gulam connects the emergence of the privileged white male as a monster explicitly to the misogynist election campaign and the 2016 election of Donald Trump as US President when he reads selected horror films as “not only using sadistic male antagonists to represent and critique his [i.e., Trump’s] hate-filled politics but also by offering up models for resistance in the form of their heroic female protagonists” (2019, 58). This is also the case in Henry’s *The Girl in Red*, as Red spends most of the time hiding from, and occasionally fighting, (mostly white, heterosexual, able-bodied) men. Whereas the traditional horror premise that the greatest threat to the protagonist is an (often supernatural) monstrous menace, the fact that *The Girl in Red* represents “men as a group [...] generally [as] predators” (Nilson 2021, 183) aligns the novel with the twenty-first-century “surge of monsters that embody dominant and regressive social structures and ideologies” (Keetley 2022, 192).

Red’s assessment of the man’s malicious intentions is confirmed when he—after a few racist microaggressions—takes up arms and tries to mug Red. Red manages to subdue him by throwing her boiling soup at his face and attacking him with her handaxe before fleeing the scene. Red’s preference for melee weapons as opposed to guns recalls conventions of the slasher film in which “[k]nives and needles, like teeth, beaks, fangs, and claws, are personal extensions of the body that bring attacker and attacked into primitive, animalistic embrace” (Clover [1992] 2015, 32). The fight itself is rather short (in contrast to the usually drawn-out process of the Final Girl defeating the killer in conventional horror films), for “[t]he goal was *not* to have a fancy movie fistfight that looked good from every angle” (Henry 2019, 16). Nevertheless, the description of the bodily effects of Red’s attack is fraught with gory details: the man’s face is “blistered and bubbled” after having been hit by the hot soup, Red is confronted with “the smell of his burning flesh,” and when she smashes her axe into the man’s stomach, “the soft organs under his shirt gave way [...], squishing beneath the pressure of the blade, and hot blood spurted over her hands” until she yanks the axe out with “a squelching, sucking sound” (Henry 2019, 17). The fact that Red chooses to target the man’s stomach provides an intertextual reference to the fairytale of Red Riding Hood, in which Red Riding Hood (and her grandmother) are saved by the Woodsman slicing open the wolf’s belly. In contrast to Red Riding Hood, however, Red does not require a male savior.

In short, Red is a twenty-first-century incarnation of the Final Girl. In fact, this reading is made explicit by the novel when the narrator informs the readers that “Red was going to be the final girl, the sole survivor of a massacre, just like in horror movies. She had to think this way, to make it something outside herself, because if she truly considered the reality of her whole family dying before her eyes and leaving her alone she would curl up in a ball inside her closet and stay there. And that wasn’t

her" (Henry 2019, 103–104). Red perceives the designation of the Final Girl as empowering and as a coping mechanism to manage her fears and traumatic experiences, echoing the characteristics of Scrivner et al.'s Dark Coper subtype of horror fans. Clover defines the Final Girl as a female character who "is unattached and lonely but declines male attention. The Final Girl is also watchful to the point of paranoia; small signs of danger that her friends ignore, she registers. Above all she is intelligent and resourceful in a pinch" ([1992] 2015, 39). In contrast to the overwhelmingly white, heterosexual, and able-bodied final girls of the slasher films of the 1970s and 1980s, Henry's Red is a queer woman of color with a prosthetic leg. The representation of Red's disability in the novel upsets "[d]isability's entrenched associations with both fear and vulnerability," which "have attained a central, though rarely acknowledged, position in the horror tradition" (Cheyne 2019, 29). Ria Cheyne explains how the horror genre tends to represent disabled characters as either monstrous villains or helpless victims (2019, 27–28). Although neither of these issues is exactly the case in the first chapter of Henry's novel (as the readers are privy to Red's thoughts, they know that she is prepared to defend herself), Red's disability still influences the readers' reception and their perception of the character. Whereas readers are arguably expected to sympathize with Red's distress and regard her resistance against the man as justified, anyway (maybe even reveling in the gory details of the rather graphic description of the attack), Red's status as an amputee threatens to turn the novel into a supercrip narrative that "produce[s] stereotypical representations of purportedly extraordinary disabled people" (Schalk 2016, 79).

Chapter 1 of *The Girl in Red* might be thought to resemble what Sami Schalk has termed 'the glorified supercrip narrative' (2016, 80), in which disabled individuals can reach exceptional achievements that even non-disabled people would have difficulty to attain, resulting in mediating the (false) message that anyone can overcome the limits posed by a disability through hard work while erasing the importance of privilege in this process. This impression might be reinforced by Red's positionality as a woman of color, as Kinitra Brooks explains, using the representation of black women in the horror genre as an example: "The characterization of the black woman as overly strong and superhuman in all aspects is a method of dehumanization" (2018, 26).² However, this impression of Red as supernaturally strong is partially reversed at a later stage, when the novel attempts to represent her disability and her matter-of-fact attitude toward it in a more nuanced way: although Red can cover large distances on foot due to previous training, she is not an invincible superwoman, as her prosthesis needs to be removed from her leg at regular intervals to prevent chafing, and it also makes it difficult for her to sneak. Despite its hints

2 It should be noted that Red is not characterized as black, but rather "had that indeterminate mixed-race look that made white people nervous, because they didn't know what box to put her in" (Henry 2019, 11).

at problems such as racist and misogynist violence, Chapter 1 works primarily as a source of entertainment rather than encouraging reflection on serious social issues, thereby appealing mainly to potential readers' longing for escapism and increasing their sense of immersion by incorporating the common generic trope of the Final Girl. Whether read before or after the beginning of the COVID-19 pandemic, readers are invited to take Red's perspective and cheer her on as she defends herself against a racist would-be-rapist, behaving according to horror genre expectations that can be traced to slasher films. While readers' related knowledge makes a difference here, it is their familiarity with horror genre conventions (rather than any life experience) that has the power to increase the pleasure of reading Chapter 1.

The structure of *The Girl in Red* switches between chapters narrating Red's journey through the postapocalyptic US and flashbacks to the time before the events of Chapter 1. On the diegetic level, those flashbacks are framed as intrusive thoughts that haunt Red and that are triggered by what is happening to her during her hike to her grandmother's house. It is mainly in those flashback sequences that the recent pandemic might change how readers perceive certain situations based on their own experiences during COVID-19. While pre-COVID-19 readers might have empathized with Red's parents and her brother Adam, who consider her insistence on stocking up, avoiding crowded places, and wearing surgical masks when leaving the house as excessive, potentially perceiving Red—as one reviewer put it—as “a belligerent, unpleasant little know-it-all” (Mogsy 2019), readers who first encountered the novel after March 2020 will probably feel more sympathy toward Red's desperate (though ultimately futile) attempts to save her family.³ Thus, COVID-19 endows the reading experience of *The Girl in Red* with a different degree of reciprocity due to the recipients' changed related knowledge and increased familiarity with attempts to prevent infection with an airborne disease. Whereas Chapter 1 of *The Girl in Red* employs the trope of the Final Girl to invite readers to sympathize with the protagonist, from Chapter 2 onward, the focus is less on Red as a potential reader identification figure (though Red's status as the only focalizer in the novel still encourages readers to take over her perspective) and more on her social environment, highlighting how the Crisis has changed the diegetic world. What started with empty supermarket shelves (“the two things Americans liked to stockpile in case of emergency

3 Henry describes herself as “a feminist writer” whose novels often feature female protagonists struggling to survive in a patriarchal society (Lefebvre 2019). These qualities are frequently present in the marketing for her books that targets female readers. Hence, the readers imagined for this paragraph are women considering themselves feminists (in the broadest sense possible). Most of the reviews of *The Girl in Red* I consulted for this chapter confirm this impression, as they were written by women who perceived the novel's representation of a strong female protagonist as positive.

were canned foods and guns” [Henry 2019, 130]) eventually culminated in a complete breakdown of communication technology and looting on a massive scale. In contrast to her family, who seem unfazed by the changes (echoing the horror trope according to which the protagonist’s environment misjudges the looming threat), Red immediately expects the worst and starts preparing to leave her home behind, undeterred by her parents’ resistance to her plans.

Her preference for horror novels and films explains why Red reacts differently to the Crisis. Much to the dismay of her mother, who works as an English professor and warns Red that “genre fiction would rot her brain” (Henry 2019, 40), Red is an avid consumer of horror fiction. For her, this habit does not only serve to entertain but is also framed as preparation for potential future catastrophes. Thus, Red exemplifies the “feeling that horror helps them cope with existential problems” that Scrivner et al. consider typical of the horror fan subtype of Dark Copers (2022, 93). Consequently, *The Girl in Red* is riddled with references to horror media and emphasizes their instructive qualities: in contrast to characters in old monster movies, who flee from the creatures “with literally every single thing they own[] on a little cart” (Henry 2019, 45), Red travels light and only packs items that are essential for her survival. Even before the Crisis has turned into a catastrophe of epic proportions, Red carries her emergency backpack with her everywhere she goes, because, unlike horror movie protagonists, she wants to avoid getting caught in a situation where “the thing a character needed the most was left behind” (Henry 2019, 48). When encountering soldiers, Red immediately thinks of the threatening presence of military personnel in *28 Days Later* (2000), and her conversation with one of the soldiers mirrors the dialogue between Clarice Starling and Hannibal Lecter in *The Silence of the Lambs* (1991), most notably through the repeated use of the phrase “quid pro quo” (Henry 2019, 235). *The Girl in Red*’s employment of references to well-known horror films to evoke emotional reactions aligns the novel with what Steve Jones has conceptualized as “metamodern slasher films” that invite the audience to indulge in “genuine emotional responses” (2024, 31). Just like “metamodern slasher films [that] are characterised by optimism, sincerity and outward-facing inclusivity” (Jones 2024, 36), Henry’s novel takes the subjective emotional responses of Red seriously. Simultaneously, the novel engages with—and, one might argue, to a certain extent innovates—certain generic conventions of slasher horror by casting an amputee woman of color as its Final Girl

One example of intertextual play in the novel occurs when Red deduces what she terms “the Apocalypse Rules” (Henry 2019, 63) from her reading material (which is also a popular motif in self-referential horror films), the “golden rule” being “Not Separating” (Henry 2019, 228). Abiding by those self-imposed rules, Red convinces her family to stay together and travel to her grandmother’s house on foot through the forest to avoid other people, roadblocks, and traffic jams. As Red’s family makes their way to the small town nearby to stock up on supplies and camping gear,

Red distributes surgical masks and vinyl gloves “to her family members with the solemnity of a priest handing out the host” (Henry 2019, 64). Although Red’s brother Adam is skeptical at first (“You really think this flimsy thing is going to help?” [Henry 2019, 64]), everyone eventually puts on the mask and gloves—such scenes might remind readers of insecurities concerning the efficacy of masks in the early days of COVID-19. Readers familiar with the transmission of airborne diseases are also more likely to share Red’s panic when her mother takes off her mask after a pile of burned corpses has induced nausea in her: “And with every rise and fall of her mother’s chest, Red could practically see the plague that had killed so many people rushing into her mother’s mouth and nose, cheering with delight at having found a new victim” (Henry 2019, 72). While Red’s mother contracts the disease, she does not die because of it: shortly afterward, the family home is attacked by racist neighbors and Red’s parents sacrifice themselves (by engaging in a shootout) to allow their children to escape. Although it is clear from the beginning that Adam has also passed away, the actual circumstances of his death are only revealed toward the end of the book.

Red actively suppresses her memories of him, indicated by the sentence “don’t think about Adam,” which is repeated several times, thereby creating curiosity in the readers’ minds and implying his death to be particularly gruesome. Adam’s death is marked as traumatic for Red, but due to genre conventions, readers’ expectations concerning Adam’s death gravitate toward entertainment rather than deep emotional investment, as “[h]orror is a genre that invites its reader [...] into a disturbingly pleasurable relationship with trauma, offering up trauma as a compelling spectacle to be consumed and even enjoyed” (Hurley 2021, 3). This impression is confirmed when Red eventually reveals how Adam died: Red finds her brother in front of a locked door in a warehouse as he is bleeding to death through wounds on his lower body that were caused by a creature, which bit off his legs. After a short moment of Red being overwhelmed by her emotions, she immediately gets a hold of herself and leaves her brother’s body behind to search for his bundle of supplies. Thus, the novel does not use Adam’s death to bring more emotional complexity to Red’s character but rather as another step toward revealing who/what the main threat (apart from racist, misogynist men) in the novel is: a monstrous creature that has escaped from a laboratory situated within the military-industrial complex. The characterization of Red remains superficial, and her pragmatism and resilience once again evoke associations with the Final Girl. Red’s struggle to come to terms with her brother’s death hints at the limits of horror media to facilitate constructive coping strategies. Although “[a]necdotal evidence suggests that some individuals may find solace from their anxiety and depression through using horror entertainment” (Scrivner et al. 2022, 94), *The Girl in Red* suggests that while horror fiction might be helpful for certain people in certain situations, it is not a panacea. Returning to the overarching question of whether engaging with horror

media might help consumers cope with existential crises such as those brought about by the COVID-19 pandemic, my analysis of *The Girl in Red* cannot yet provide a conclusive answer: while certain types of horror fans such as the so-called Dark Copers, represented by Red, might benefit from reading/watching/playing horror media, there are cases in which such an approach remains insufficient. However, consuming horror is not the only solution to coping with crises that *The Girl in Red* proposes.

Losing and Finding Familial Bonds

The Girl in Red is mainly set in a forest. The woods figure prominently in the horror genre, most often as an “archetypal site of dread” (Parker 2020, 1). Readers who are familiar with the genre thus expect “ominous depictions of the forest as a site of trial, trepidation, and terror” (Parker 2020, 2). What readers get in *The Girl in Red*, however, is more akin to representations of “nature as refuge” that are prevalent in US American dystopian young adult fiction and that “suggest that a female protagonist’s awakening is catalyzed by her experiences within nature and that these experiences shape nature into a place ideal for claiming her agency” (McDonough and Wagner 2014, 157–58). Apart from her aforementioned encounter at the beginning of the book that ends with Red killing a racist misogynist, the forest in *The Girl in Red* is strangely depopulated, with the protagonist barely encountering any humans or animals. Much to the disappointment of many readers, the novel does not feature any literal wolves. While the man who threatens Red at the beginning of the book is likened to an animal by Red, she does not compare him to a wolf but refers to him metaphorically as a “coyote” (Henry 2019, 19). This might be due to the novel’s attempt to not specify a geographical setting, as coyotes are far more widespread in the US than wolves.

The greatest threat to Red in the forest is not the natural world or even other humans, but her sense of isolation. On the one hand, the Sylvan territory is difficult to navigate for Red because of her prosthetic leg. In case of a serious injury, a lack of medical infrastructure would most likely result in her death. On the other hand, the combined force of the traumatic loss of her family and the social isolation in the forest take a psychological toll on Red. As the novel progresses, her interior monologue becomes increasingly frantic: “Red tried not to talk to herself because it reminded her too much that she was alone but sometimes words just fell out of her mouth, like they were trying to remind her that she could still speak” (Henry 2019, 27). Due to widely enforced social distancing measures, many who read the novel after March 2020 can reasonably be assumed to have become familiar with occasional feelings of isolation, thus increasing the relatability of Red’s emotional turmoil and contributing to a stronger sense of immersion. *The Girl in Red* emphasizes the emotional stress

that Red's loneliness causes her, which cannot even be alleviated by reading the horror novel she brought along with her, hinting once again at the limits of consuming horror media as a coping strategy.

Red's isolation ends when she accidentally encounters Sam and Riley, two children of primary school age. Red's meeting with the siblings increases the pastoral appeal of the forest setting: when Red manages to make Riley laugh, the sound of his laughter "didn't belong in that terrible world. It cut through the oppressive air of the forest and hung there like a magic spell" (Henry 2019, 179). The children embody futurity, reminding Red that despite the vast destruction, there are future generations who will (have to learn how to) build a life among the ruins. Red feels responsible for the siblings and chooses to adopt them in an act of cross-generational solidarity. Red's new-found family is then taken in by elderly Korean American DJ Park, who hides the group in his home to protect them from violent militiamen. Through this turn of events, *The Girl in Red* emphasizes the importance of social contacts and familial bonds for people's wellbeing while simultaneously disentangling family formation from biologized kinship. Although Red's alliance with DJ Park is only temporary, the safe space of Park's home is the key to Red's working-through the loss of her brother, as Red eventually reveals how Adam died in a conversation with DJ Park. Thus, in the end, *The Girl in Red* turns its back on glorifying the sense of self-sufficiency inspired by the Final Girl trope and instead celebrates social connections as an essential support system during difficult times. This message has also resonated with readers such as Lilly-Ann Newman, who closes her book review in March 2020 with the statement that "Red [...] lost everything, trekking across a treacherous country alone, but with the support of two tiny hitchhikers she reaffirms her faith in humanity. I can only hope that we can do the same" (2020).

Endings and (No) Closure

The Girl in Red ends with Red encountering and defeating the (literal) "flesh-eating monster" that mortally wounded her brother—a "giant black slug[... with a] head made of teeth. So many teeth—shaped like a great white shark's serrated triangles and stacked like a whirling buzzsaw in concentric circles" (Henry 2019, 350). The monster's shape recalls threatening features of several classic horror monsters with its sharp teeth, slimy exterior, and slithering motions. Saving both herself and her new family member Sam from the creature by attacking it with her axe and presumably killing it, Red overcomes her survivor's guilt: "Red had thought she had known everything at the start. She had thought that knowledge, that preparation would keep her and her family safe. It hadn't. No amount of caution or knowledge or perfectly packed supplies could eliminate the danger. That danger had taken her family from her. Red could never really be at peace with that, but she finally accepted

that it wasn't her fault" (Henry 2019, 359). Red's acceptance of her agency's limits is represented as a form of personal growth (and arguably the only dimension of Red's character that develops in the entire novel). Interestingly, Red depersonalizes the death of her parents and her brother: although there are clear culprits in both cases (racist Anglo-American men and a lab-grown creature, respectively), she subsumes both under the vague moniker of "danger." This leaves more room for the readers to imagine themselves in Red's place and to fill the term 'danger' with their fears, anxieties, and/or other personal issues.

Finally, Red—together with Sam and Riley—arrives at her grandmother's house, which, from the outside, seems to be both unharmed and inhabited, as the smell of fresh bread wafting from the chimney indicates. The italics that are used for Red's intrusive thoughts proclaim: "Grandma's house. I'm home, finally home, and there are no wolves in these woods" (Henry 2019, 363). However, the book ends with Red knocking on her grandmother's door—thus, leaving open who (or what) awaits her in the house. The intertextual connection with the fairytale of Red Riding Hood challenges the optimistic tone of the open ending, as the original Red Riding Hood is greeted by a disguised wolf instead of her actual grandmother. This remaining sense of unease is also typical for the horror genre, as Ria Cheney explains: "horror's disturbing affects endure, echoing beyond the conclusion of the narrative" (2019, 51). Maria Nilson observes a similar trend among recent feminist retellings of fairy tales: "Not only have the fairy tale characters evolved and the setting of the stories become more elaborate, the stories in themselves have changed from one-dimensional tales with a clear beginning, middle, and end into multilayered stories that are often contradictory, ambivalent, and have open endings" (2021, 185). Nilson regards Henry's novel as "a text that provides very little hope and seems to say that the unjust society portrayed cannot be changed" (2021, 183). However, I would argue that while the novel certainly privileges individual solutions over structural change, it also celebrates its protagonist's resilience in the face of difficult circumstances. Despite the violent confrontations she faces along the way, Red is still able to build mutually supportive relationships with both Mr. Park and the children Sam and Riley, who help her to overcome her survivor's guilt, and eventually, she reaches her destination.

Although *The Girl in Red* imagines (or at least hints at) a livable future for its disabled protagonist, the novel's vision remains another example of what Alison Kafer calls a future in which "disability appears [...] as the site for personal triumph and overcoming" (2013, 22), rather than as a herald for large-scale structural change and generally more accessible futures. This privileging of individual solutions, which Nilson considers a common trait of twenty-first-century feminist retellings of fairy tales (2021, 174), limits the novel's potential when it comes to addressing challenges (like a pandemic) that affect society as a whole. While one would not generally ex-

pect a horror novel to engage in extensive social criticism,⁴ *The Girl in Red's* feminist agenda (most notably articulated through its references to the ubiquity of misogynist violence both before and during the Crisis and its casting of white male heterosexual would-be-rapists in the role of monsters) might raise expectations that the novel goes beyond simple entertainment.

A look at amateur readers' reviews shows how those expectations differ and are influenced by extratextual factors that include not just changes in readers' related knowledge through global crises such as the advent of COVID-19 or which horror fan subtype they might be classified as but also elements such as the publisher's marketing strategies for the novel.⁵ Even though my assessment of these amateur reviews that were published after March 2020 is far from systematic, it still shows a great variety of responses. Whereas many reviewers do not mention the COVID-19 pandemic at all, those who do relate the plot of the novel to the pandemic perceive it as spoiling what would otherwise have been an escapist pleasure (e.g., Kloss 2022; Lemon 2022; Wolter 2022). Although some reviewers feel that the parallels between the diegetic Crisis and COVID-19 make it easier for them to empathize with the protagonist (e.g., Newman 2020; Leitzinger 2022; Wirtz 2022), many others perceive those parallels as deterring and uncomfortable enough to warrant a warning (e.g., Gross 2022; Lübbert 2022). In contrast to protagonist Red, who finds solace in horror media and is emboldened by what she learns from them, reviews fluctuate between those disturbed by the novel's representation of a deadly pandemic and those enjoying the book without mentioning COVID-19.

Conclusion

This chapter has explored how *The Girl in Red* represents both horror fiction and social connections as helpful when it comes to coping with existential crises. By engaging with horror media intertextually, the novel, on the one hand, positions itself within the generic framework of horror and, on the other hand, appeals to horror fans and invites them to identify with the protagonist and spot the numerous intertextual references. *The Girl in Red* plays with genre conventions by rewriting traditional notions

4 While horror media have arguably always engaged in some form of social criticism (see, for example, Angela Smith's *Hideous Progeny* [2011] for entanglements between early to mid-twentieth century horror films and eugenic movements), those political implications remained marginalized in scholarly discourse (and public awareness) until the 1980s (Wisker 2005, 232).

5 The German translation of *The Girl in Red* appeared in 2022. According to senior editor Beatrice Lampe (2022), the promotional campaign for the book did not mention the role that the fictional pandemic plays for the plot on purpose. Lampe further informed me that the novel met the German publisher's sale expectations.

of monstrosity and by renovating the Final Girl trope. By casting a disabled queer woman of color in the role of the Final Girl, *The Girl in Red* asserts itself as part of the twenty-first-century socially progressive horror trend that also includes movies like Mike Flanagan's *Hush* (2016), which features a physically disabled female protagonist, and Jordan Peele's *Us* (2019), whose plot focuses on an African American woman. The novel's association of Red's monstrous antagonists with misogynist, racist men and the military-industrial complex forms the core of its feminist agenda and responds to the 2016 election of Donald Trump as US president and the ensuing conservative backlash against progress toward equal rights for people of color, queer people, and women. However, due to its characterization of protagonist Red as strong, intelligent, and self-sufficient, *The Girl in Red* does not explicitly address how pandemics affect marginalized populations more severely than privileged people, turning the novel into escapist entertainment rather than a serious contemplation of social issues. The novel's message of horror media as helpful tools to cope with existential crises might resonate with horror fans of the Dark Coper subtype, whereas its celebration of cross-generational solidarity and familial bonds might reach a wider audience.

While the novel was generally well-received pre-COVID-19, those who read the novel after March 2020 tended to perceive the parallels between the diegetic Crisis and COVID-19 as uncanny. In contrast to protagonist Red, who feels empowered to stand up for herself and take her survival into her own hands through her voluntary exposure to horror media, this is not necessarily the case for those recipients, some of whom feel cheated out of their desired escapism due to similarities between the fictional pandemic and COVID-19. The study of pandemic reading practices remains a field with many open questions, including which kinds of readers turn to which literary genres and what motivates them to do so. The case study in this chapter is merely a first step in the direction of learning more about the role of reading in confronting and assuaging pandemic anxieties.

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Literary Reflections on the Institution of Science and COVID-19

Fabian Hempel

As soon as the first cases of COVID-19 were reported, scientific research on the virus and the disease began. In early January 2020, researchers published the first whole-genome sequences of SARS-CoV-2 (Wu et al. 2020; Zhu et al. 2020; Enserink 2023). This research became a central node for the assemblage of scientific knowledge and medical applications developed to understand, contain, and mitigate both SARS-CoV-2 and COVID-19. The pandemic triggered a collective response unprecedented in modern science, leading to the rapid development, testing, and distribution of vaccines and treatments that significantly reduced the severity and mortality of the disease. Building on decades of scientific progress in biomedicine (Dolgin 2021), it took less than a year from the first shared SARS-CoV-2 genome to the start of the vaccination campaigns. Although the collective productivity of public and private research was remarkable, the pandemic also exposed several problems in the epistemic and social organization of science and its configuration within society.

These dysfunctions included political and economic actors mishandling scientific advice (Evans 2022; Bacevic and McGoey 2024), widespread disinformation about the pandemic (Loomba et al. 2021), scientific, social, and public health inequalities (Rydland et al. 2022), the commercialization of biomedical research (Robinson 2021), and qualitative differences in peer review (Horbach 2021). Thus, COVID-19 both deconstructed and reinforced the cultural idea of science's autonomy and social responsibility as its functional imperatives. This chapter reflects on these imperatives by exploring pertinent literary fiction. Building on the strong program in cultural sociology in general and the strong program in literary sociology in particular (Alexander and Smith 2001; Váňa 2020), it uses four works of pandemic fiction—Albert Camus's *The Plague* (1947), Ashoke Mukhopadhyay's *A Ballad of Remittent Fever* (2018), Lawrence Wright's *The End of October* (2020), and Orhan Pamuk's *Nights of Plague* (2021)—as literary lenses through which to rethink aspects of the social and epistemic constraints of science that the pandemic made visible. More specifically, the thematic analysis focuses on the efforts of scientists and medical professionals to gain insight into the disease outbreaks depicted in the novels and how their interactions with other actors affect their capacity to contribute to the

societal response. The following section frames the autonomy and responsibility of science as cultural ideas and analytical concepts that guide the interpretation of the novels. The third section outlines the use of literary fiction in the context of sociological theorizing to underpin the sociological approach to literature adopted in this chapter. The main section then discusses sociological readings of the four novels, each emphasizing different aspects of science and the pandemic. The conclusion considers possible implications for cultural understandings of modern science, the pandemic, and society.

On the Autonomy and Social Responsibility of Modern Science

The public health impact of COVID-19 was not unprecedented; what made the pandemic unique was the societal response. Driven by a collective prerogative to control the course of the disease, this collective response—particularly in its early stages—involved extreme measures such as society-wide lockdowns imposed by governments in many countries. These measures aimed to contain the disease but placed immense strain on public health systems (Caduff 2020, 476–79). While infectious diseases have affected human societies throughout history (Snowden 2020), public health systems in their current form are comparatively modern institutions (Porter 1994). Medical practice, in general, is a societal mechanism for coping with the illness of its members, and modern medical practice is primarily “organized about the application of scientific knowledge to the problems of illness and health, to the control of ‘disease’” (Parsons 1951, 432). In other words, modern public health systems are linked to modern research systems and depend on the latter’s ability to generate and translate scientific knowledge into medical practice.

As a social institution for organizing and controlling scientific work, modern science combines continuous novelty production and high task uncertainty (Whitley 1984, 32–34). It also features collective coordination of task outcomes through the distribution of rewards, controlled primarily by reputations based on the quality of research as judged primarily by peers. Scientific disciplines are the primary units of internal differentiation within modern science. These include the specialization of scientists, communication systems, work organization, and systems of quality standards, controls, and rewards (Stichweh 2015). The social organization of science remains structured by the political, economic, and cultural contingencies of the societies and political-administrative systems in which its formal organizations are embedded. As a cultural institution, especially in terms of its epistemic organization, science tends to be relatively cosmopolitan (Beck 2006, 89). The patterns of transnational interaction in competition, collaboration, and communication within and across disciplines observed during the pandemic exemplify this cosmopolitan aspect of modern science.

Given that North American and European science systems have dominated the institutionalization of scientific knowledge production in its current form, Western understandings of modernity have profoundly shaped the culture of modern science (Münch 1986a and 1986b). This culture co-produces and presupposes an *illusio*—a sense of how and an inclination to play the game of science that is shared in various forms by most, if not all, actors within the institution of science (Bourdieu 1991, 8–9). It is expressed, for example, in the codification of the institutional goal of scientific research as the production and certification of true knowledge, defined as “empirically confirmed and logically consistent statements of regularities” (Merton [1942] 1973, 270). It also features shared technical and ethical norms; that is, disciplinary and disciplining research methods, practices, and standards. This particular self-understanding of modern science centers on scientific autonomy and social responsibility as epistemic and organizational ideals instrumental to achieving its institutional goals (Brunner and Ascher 1992; Wilholt and Glimell 2011).

From a functional perspective, scientific autonomy assumes that research is most productive when evaluated solely on intellectual criteria that transcend “extraneous group allegiances” (Merton [1972] 1973, 134). From an analytical perspective focused on individual and collective actors, autonomy refers to the degree of control an actor has over their ability to set and approach goals within constellations of interdependence that require dealing with external influences (Gläser and Schimank 2014, 44; Gläser et al. 2022, 108). As a property of individual researchers, research groups, research organizations, and scientific communities, scientific autonomy includes the free choice of research topics, theories, methods, and publication formats. In addition, actors within science systems produce knowledge objects that can diffuse into and affect their societal environment. Concerning their external impact, modern research systems are ambivalent social mechanisms that contribute to producing significant societal benefits and risks (Beck 1992, 155; Schimank 1992, 216).

The pandemic demonstrated how scientists’ interactions with and in other societal domains—e.g., the role of scientific advice in COVID-19 policymaking—pose risks to their autonomy, as well as to that of the institution of science as a whole, when others hold them responsible for adverse societal consequences, regardless of their actual causal or moral involvement. At least from a consequentialist perspective, scientists share responsibility for the societal and environmental impact of the knowledge they co-produce, even if they rarely or never have binding control over how actors in other societal domains use their results (Douglas 2014, 973–75). Moreover, the manifest and latent conceptions of scientific autonomy and responsibility vary across and within societies, research systems, disciplines, and research organizations. Thus, both concepts are fuzzy, multifaceted, widespread, and, therefore, appropriate for studying the epistemic and social organization of science in general

(Panofsky 2010) and specifically in the context of COVID-19 (Gómez-Virseda and Usanos 2021).

The above considerations on the autonomy and responsibility of science and the sociological readings in the main section employ an actor-based perspective as a general conceptual framework. It focuses on the social actions of individual and composite actors—for instance, individual researchers and research organizations—within a given actor constellation (Schimank 2013, 30–31; Schimank 2015, 415–16). Such an actor constellation is present when the intentions of at least two actors overlap, and they attempt to realize their respective intentions through interactions. Furthermore, this perspective assumes that social actions and social structures mutually constitute each other. Social action is any action by an actor that takes into account the behavior of others in a social context. Social structures are patterned sets of rules, resources, and relations that shape social life. While social structures are continually produced and reproduced by the interplay of actors and their actions, they, in turn, constrain and enable those very actors and their actions (Giddens 1984, 25–26). For the thematic analysis of the novels, adopting an actor-based perspective means emphasizing the interpretation of character actions, interactions, and constellations in the novels. In doing so, literary fiction serves as an epistemic device for theorizing the social. The following section elaborates on this methodological approach.

Literary Fiction and the Sociological Imagination

Cultural artifacts received considerable attention in various social spheres as devices for coping with and reflecting on the pandemic's social, cultural, and environmental effects. Particularly during the initial lockdowns, various forms of fiction, especially those dealing with infectious diseases, their outbreaks, and their consequences, were prominently featured in media discourses (Butler et al. 2021). More generally, referencing fiction—understood here as communicative forms that represent imaginary worlds, characters, events, and other entities—allows us to draw on our experience of engaging fiction to understand various physical, cultural, or social phenomena. Regarding literary reception, various modes of textual engagement, such as enchantment, social knowledge, shock, and recognition (Felski 2008, 14–15), can shape the reading of a literary text. Likewise, a fictional story can be an epistemic prism that frames the reader's anticipation, perception, and retrospection of social events (Felski 2008, 35).

Using literary fiction as an epistemic tool to reimagine the configuration of science and the pandemic builds on the premise that such modes of engagement with literary fiction can inform sociological theorizing. As fields and practices of social observation, literature and sociology offer different approaches to and frames of

society within their respective practices, fostering a complementary and competitive dynamic between them (Lepenies 1992). In terms of scholarly approaches to literature, literary studies and sociology have had a similarly complementary, less competitive, and more collaborative relationship. Literary studies regularly use sociological theory to interpret literary works and genres (e.g., Köppe 2011; Vogl 2014). In addition, many approaches in literary studies emphasize various aspects of the social context of literature, such as the intertextual and intermedial dimensions of literary texts and the social history of literary production and reception.

Situating literary works within broader social, cultural, or economic contexts has been the primary sociological approach to literature in recent decades (Sapiro 2014, 10–12). Particularly relevant has been the sociological analysis of literary fields as fields of social struggle in which authors and artists are endowed with different amounts of cultural and social capital and compete to improve their social position relative to other competitors within the literary field (Bourdieu 1983 and 1992). In addition to such sociologies of literature, several sociological works, especially in the subfields of sociological theory, historical sociology, and cultural sociology, have demonstrated that works of fiction can also be tools of the sociological imagination (e.g., Coser 1972; Kron and Schimank 2004; Becker 2007, 238–51). Recent perspectives have substantiated the potential of such approaches in literary sociology (e.g., Farzin 2019; Herold 2020; Longo 2020; Matthies 2016; Misztal 2016).

The potential of literary fiction as a tool of the sociological imagination rests on the methodological assumption that it can imagine the social world in ways that can be both consistent with and contrary to sociological understandings (Longo 2015, 8). Like any other cultural artifact, literary fiction is shaped by the aesthetic, cultural, and social contexts in which it is produced and, crucially, received and interpreted. It can display explicit and tacit knowledge of the social worlds in which its production and reception are embedded (Sevänen 2018, 62), offering imaginary blueprints of the social world that simultaneously reflect and differ from ordinary reality (Luhmann 2000, 142–43). For example, the narrative structure of modern novels can combine insights into different levels and sequences of social life by focusing their stories on individual actors, groups, constellations of actors, and different institutions and social spheres over a limited or extended time and space (Gaines et al. 2021, 12).

This chapter's approach to sociological theorizing through literature situates fiction within the sociological "context of discovery" (Reichenbach 1938, 6–7). It is similar, but not identical, to the strong program in the sociology of literature as a particular mode of the eponymous program in cultural sociology (Váňa 2020 and 2021). The latter emphasizes culture as a relatively autonomous variable in shaping social institutions (Alexander and Smith 2001; Côté 2023). From such a perspective on culture, fiction can illustrate theoretical and empirical issues, provide information, and offer explanatory insight (Kuzmics and Mozetič 2003, 26–35). Central to this is the component of symmetry in approaching fiction: the same sociological framework for de-

scribing and explaining actual, empirically observable manifestations of the social is helpful to understand fictional representations of the social. While fiction can also be part of the “context of justification” (Reichenbach 1938, 8) in empirically oriented theorizing, in the context of this paper, I primarily approach fiction in the context of discovery “in whatever way that is conducive to creativity” (Swedberg 2012, 8). As the next part shows, its interpretation can generate substantive reflections on actual social events and constellations.

Literary Imaginations of Science and the Pandemic

The COVID-19 pandemic has led to a surge of pandemic fiction. This trend will likely continue in the foreseeable future, as infectious diseases and epidemics have a long history in world literature (Snowden 2020, 32). What distinguishes most modern pandemic fiction—and pandemic-themed art in general—from its predecessors is the latent or manifest presence of a broad public health prerogative that assumes that diseases are not so much divine punishments but a set of problems to be addressed through individual and collective action. A second notable aspect of modern pandemic fiction is its depiction of societal efforts to control or, at least, mitigate the outbreak and spread of infectious diseases. Although the four pandemic novels examined in the following sections differ in various ways, the collective attempts and subsequent failures to adapt to the disease and mitigate its spread and effects serve as central events in their respective narratives. In addition to these general characteristics of modern pandemic fiction, three specific features guided the selection of the novels.

First, the settings of the novels cover a broad aesthetic-cultural spectrum (Octobre 2020, 280), spanning different literary traditions, regions, societies, and historical periods. These include colonial and contemporary India (Mukhopadhyay), Algeria during French colonial rule (Camus), the contemporary United States of America, Saudi Arabia, and Indonesia (Wright), and a fictional island in the Aegean Sea during the waning years of the Ottoman Empire in the early twentieth century (Pamuk). Second, the novels were published, or at least primarily written, before the emergence of COVID-19. *The Plague* was first published in 1947, *A Ballad of Remittent Fever* originally in Bengali in 2018, Lawrence Wright’s novel in April 2020, and Orhan Pamuk’s in March 2021. Although it is quite a jump from 1947 to the three novels published relatively recently, *The Plague* was chosen not primarily because of its status in the modern literary canon but rather because it paradigmatically describes the in-depth experience of an epidemic from its outbreak to the end of its first wave. Concerning *Nights of Plague*, Pamuk (2020) has stated that he began writing the book four years before the pandemic hit. Third, each novel contains thematic elements related to scientific knowledge production, translation, and medical application. In

sum, the novels illustrate the connection between a society's responsiveness to pandemics—that is, its ability to cope with the outbreak and spread of infectious diseases—and the epistemic and social organization of science. Therefore, the following readings of the literary texts focus on themes related to this particular configuration and serve as an epistemic lens through which to explore various aspects of science and COVID-19.

Commitment

Set in Oran, a port city in northwestern Algeria, during the 1940s, when Algeria was under French colonial rule, Albert Camus's *The Plague* revolves around an outbreak of the bubonic plague that causes widespread panic, suffering, and death. Often read as an allegory of the German occupation of France during World War II and told by an unnamed narrator not identified until the end of the story, the novel chronicles the collective and individual responses to the rapid spread of the epidemic, which isolates Oran. *The Plague* depicts various characters, such as medical professionals, political leaders, journalists, and ordinary people, facing a highly contagious, deadly disease and an overwhelming existential crisis. Similar to the initial ignorance of the potential impact of COVID-19 during the first months of 2020, at least in many European societies and the United States, political leaders and the general public of Oran initially downplay potential epidemiological signs of an impending outbreak. The presence of thousands of dead rats foreshadows an epidemic already happening. As the plague progresses, rats become carriers, spreading it among themselves and eventually to the human population.

On the same day as Oran's authorities announce a rising rat mortality, Bernard Rieux, a doctor who comes to oversee the medical response in the city, observes the concierge of his apartment block "walking painfully, his head bent forward, his arms and legs akimbo, like a puppet" (Camus [1947] 2013, 15). Although Rieux intuitively recognizes some signs of the spreading disease, the city administration is slow to confront the severity of the situation and, at first, only takes insufficient control measures. For example, the city hospital opens a special unit with limited capacity that is immediately overwhelmed. Due to the initial reluctance to implement quarantine and isolation, the number of cases and deaths steadily increases. In this situation, Rieux faces tensions between individual autonomy and social responsibility similar to those faced by medical professionals and scientists during the COVID-19 pandemic. His actions seem to be a deliberate outcome of his personal choices and his responsibility to the people of Oran, thus demonstrating an ideal-typical professional commitment to treating the sick and containing the spread of the disease.

In a conversation with Raymond Rambert, a journalist on assignment in Oran for a Parisian newspaper, who initially tries to flee the city but later supports the collective effort to mitigate the epidemic, Rieux explains his behavior: "This whole

thing is not about heroism. It's about decency. It may seem a ridiculous idea, but the only way to fight the plague is with decency" (Camus [1947] 2013, 125). In this situation, he insists that decency means fulfilling the expectations of his peers, patients, principals, and the broader societal community—such as performing his duties as a doctor. While Rieux consistently fulfills his duties of treating patients and advising on countermeasures against the epidemic, it is only at a certain point that he becomes aware of his commitment to the particulars of what he considers decency. Based on this interpretation of the character's actions, he seems to have made the commitment without realizing it (Becker 1960, 38). Commitment to, and not just merely compliance with, the standards, expectations, and norms that govern the medical and scientific professions, or any other profession, is crucial for their functionality, especially in situations of professional strain, that is, circumstances that create stress, tension, and difficulties for individuals in their professional roles. The Oran epidemic and its social response constitute an extraordinary strain on Rieux, and his conduct illustrates how professional roles with specific responsibilities, such as those of medical practitioners and researchers, serve general, socially integrative goals, especially during such a crisis.

However, Rieux recognizes that relying solely on mechanistic explanations within professional fields can hinder the capacity for a collaborative response. Analogous to Max Weber's concept of 'Verstehen' ([1921] 2019, 79–99), to fully comprehend the factors contributing to the epidemic in Oran or COVID-19, such as the interplay between disease, society, and the ecological environment, one must go beyond knowledge of the disease itself. These factors require understanding the subjective and collective meanings that individuals and groups associate with their experiences and actions within the social and cultural contexts that shape the course of epidemics. For example, when specific indications suggest that the epidemic might abate, Rieux stresses the need for continued caution. Anticipating statements made by many scientists before, during, and after the most severe phases of the COVID-19 pandemic, he also highlights the considerable uncertainty, limited knowledge, and lack of understanding of the situation.

At the story's midpoint, Rieux reflects on the course of the epidemic and concludes that "evil in the world comes almost always from ignorance, and goodwill can cause as much damage as ill-will if it is not enlightened" (Camus [1947] 2013, 100). His statements and actions throughout the novel mark Rieux as a classic, enlightened, yet disenchanted modernist who embraces reason as the guiding principle for action and believes in the possibility of social progress. At the same time, he is disappointed by how people in Oran deal with the plague, as their actions exacerbate its social and public health effects. The belief in social progress through utilizing reason that Rieux embodies is an essential feature of modern science. However, many people in Oran do not share this belief in social modernity and science, or, at least, other interpretative patterns and beliefs more prevalent in Oran superimpose the modern

scientific worldview represented by Rieux. This thematic aspect of the novel mirrors the gap in public understanding of the epidemic from a scientific and medical perspective evident in public discourse on COVID-19 in many societies.

Science shares, at least in part, responsibility for this lack of public understanding, as its contemporary organizational pattern can lead to unintended, habitual, structural, and strategic ignorance (Merton 1987, 6–10). While an extensive argument for this claim is beyond the scope of this paper, current reward structures prioritize the traceability of individual over collective achievement, the disciplinary alignment of research actors, and the translation of scientific knowledge into economic assets. However, research depends on epistemic and organizational collaboration, often across disciplinary boundaries and societal domains. Although scientists collaborated and succeeded in many ways in responding to COVID-19, the pandemic revealed and exacerbated structural gaps in collaboration within science and between science and society (Cohen 2023; Maher and van Noorden 2021). Both elements, especially the latter, are exemplified in *The Plague* and the novel discussed in the following section. The reading of the latter emphasizes how external social factors can contribute to the production of scientific ignorance, particularly in times of crisis.

Puzzle-Solving

Regarding research into the origins of pathogens and infectious disease outbreaks, Henry Parsons, the main character in *The End of October*, coincidentally published during the first wave of COVID-19 in April 2020, argues that scientific knowledge can be dangerous due to the societal risks it can co-produce, but ignorance is far worse (2020, 15). In the ideal scenario for addressing a public health crisis, scientists seek to identify its causes to build scientific and societal understanding of the threat and to support the development of prevention, mitigation, and adaptation measures. However, when this chapter was finished in 2024, as the COVID-19 pandemic was entering its fifth year, debates about its origins were still a heated political and scientific discussion. The two primary hypotheses revolve around a zoonotic spillover event and a laboratory incident at the Wuhan Institute of Virology (Gostin and Gronvall 2023, 2305–307). Scientific evidence supports the natural emergence variant, but political doubts and scientific uncertainties remain. In an ideal scenario, the search for the origin of SARS-CoV-2 would be strictly scientific, at least if the primary goal was to find its true origin.

However, COVID-19 also became an information disease, spreading through society as rapidly as it infected humans. These controversies persisted for several reasons, including social tensions, conflicting political and economic interests, and, above all, society's general inability to cope with the uncertainties and contingencies of the pandemic. In terms of the autonomy of science from external societal in-

fluences, the pandemic demonstrated how broader cultural, political, and economic networks affect the organization of research, thereby impacting its capacity to identify the origin of SARS-CoV-2 and COVID-19. The epistemic and social context of solving such “a considerable puzzle” (Wright 2020, 44) is a central theme of *The End of October*. Partly inspired by the 1918 influenza pandemic and resembling a detective story in its attempt to capture epidemiological reality (Boltanski 2014, 32), the story centers on a fictional viral pathogen called Kongoli, which causes a deadly hemorrhagic fever and triggers a worldwide outbreak with a lethality far more devastating than COVID-19—over 60 percent of those infected succumb to the disease.

Parsons, a deputy director for infectious diseases at the Centers for Disease Control and Prevention in Atlanta, United States, is tasked with investigating an unusual cluster of fatalities in a refugee camp in Indonesia. As the story progresses, he travels the world to trace the origin and evolution of the virus. Throughout the narrative, Parsons witnesses how inadequate responses from government institutions, emerging geopolitical tensions, and limited healthcare capacity exacerbate the impact of Kongoli. Researchers also struggle to develop vaccines and treatments for a virus with a genetic composition unlike any other known strain. As an epidemiologist and virologist, Parsons exemplifies the ideal of a scientist using his individual autonomy to fulfill both his professional duties and his broader responsibility to society. “Going into the field, alone, in an alien environment, with minimal resources, was the most perilous mission a disease detective like Henry could undertake. However, the threat of a virulent disease outbreak was so great that Henry was willing to take the risk” (Wright 2020, 20).

At first glance, Parsons’s actions emphasize collectivism over self-orientation. In other words, this pattern of responsible behavior is not limited to the efficient performance of specialized tasks but “involves the coordination of a variety of factors and contingencies in the interest of collective goals” (Parsons 1951, 100). Parsons, the novel’s protagonist, not the sociologist I just quoted, is compelled to confronting an immediate societal problem. He does so while ignoring the individual risks he faces in his investigations, even though he is fully aware of them. However, this behavior is not widespread among his peers. At the story’s midpoint, many healthcare workers, doctors, and scientists have left their hospitals and labs due to the pathogen’s lethality. This causes a breakdown of the public health and biomedical research systems because “most of them are just scared. They’re not trained for this kind of medical emergency” (Wright 2020, 193). At this stage of the pandemic, both globally and locally, for society as a whole and its different spheres of life, “[t]he contagion had destroyed any sense of community” (Wright 2020, 195), resulting in widespread anomie of most of its institutions.

Jane Bartlett, a policy advisor not unlike the real-life Anthony Fauci to a barely functioning US government decimated by the virus, suggests that this institutional collapse was predictable, not because of a lack of plans, but because of a lack of re-

sources to support and prepare for the security of vital systems: “[W]e’ve had plans for years, at the CDC and NIH and Johns Hopkins and Walter Reed, we’ve had lots of plans. We just haven’t ever been given the resources and personnel to carry them out” (Wright 2020, 147). A critical aspect of preparedness is basic and anticipatory research on pandemic-related topics within and across scientific disciplines, especially virology, epidemiology, and vaccinology. Two conceptual features of scientific autonomy mediate the direction and potential capacity of such research: first, the protected space afforded to scientists in which they have control to utilize required resources for their research; and second, the flexibility of research systems to legitimize, support, and develop novel research problems and approaches (Whitley 2014, 370–72).

The novel’s illustration of Parsons’s breakthrough in developing a unique variation technique crucial to creating a vaccine against Kongoli provides an unrealistic portrayal of research practice in the biomedical sciences. However, read as a conceptual metaphor, the research situation depicted requires epistemic flexibility due to its contextual and temporal constraints. A lack of resources limits organizational flexibility, and the urgent need for a vaccine severely restricts the protected space for research to produce substantive solutions. This development occurs within the confines of a military submarine, where Parsons has to set up a makeshift laboratory. The hull of a submarine consists of two main elements, the light hull and the pressure hull, designed to maintain the submarine’s structural integrity by balancing external and internal pressures at varying water depths. Thus, due to time constraints and limited equipment, the submarine may be read as an organizational metaphor for a severely confined and restricted organizational space. A second, contrastive reading alludes to perceiving Parsons’s laboratory work in the submarine as a situation of significant epistemic flexibility, as the uniqueness of Kongoli necessitates curiosity-driven intuition and non-paradigmatic approaches to discover “how to turn the disease against itself” (Wright 2020, 284).

Uncontrollability

Protected space and flexibility are salient dimensions of the autonomy of scientists to conduct research and formulate scientific advice. Scientific expertise has long influenced contemporary and past forms of government (Lentsch and Weingart 2011; Eyal 2019). More than any other contemporary phenomenon, except for anthropogenic climate change, COVID-19 brought the role of scientific experts in policymaking to the forefront (Pamuk 2021, 193–210). In general, societies whose governments provided a robust organizational and political environment for scientific research and policy advice responded better to the pandemic, particularly in East Asia and the Global South. However, in many societies, whether democratic or authoritarian, politics often ignored or misused advice and politicized individ-

ual experts and scientific expertise in general. Moreover, political and economic interest groups increasingly favored normative and material criteria that trumped public health necessities and resulted in contradictory and ineffective measures (Weingart et al. 2022).

The experience of Nury Bey, an epidemiologist and a central character in Orhan Pamuk's *Nights of Plague*, is similar to that of many scientific experts during COVID-19. The main story of *Nights of Plague* is set in 1901 on the fictional Ottoman island of Mingheria in the Aegean Sea, between Crete and Rhodes. While the novel primarily engages with the twilight years of Ottoman decline and the collective identity formation of independent movements in many of its imperial dominions, the central chain of political events is triggered by and occurs during a plague epidemic that isolates the island from the rest of the Mediterranean world. Initially, political leaders and the public appear to demand and accept Bey's expertise widely. In his advisory role, he acknowledges the uncertainty and limitations of his recommendations due to the dynamics of the epidemic. He also emphasizes the need for further research. However, confidence in his expertise erodes as the epidemic progresses and its mortality rate increases. Political and religious actors are increasingly politicizing and scapegoating his advice, leading to a loss of public trust and threats against him.

To alleviate the looming public health crisis on Mingheria, Sultan Abdul Hamid II has sent "the Ottoman Empire's two foremost plague and epidemic disease experts" (Pamuk [2021] 2022, 10)–Bonkowski Pasha, a fictionalized version of the historical Inspector of Public Health and Sanitation of the same name (Çil 2023, 106–107), and Bey, a quarantine doctor and prince consort, accompanied by his wife, Princess Pakize, a daughter of a former sultan and niece of the current one. Although Mingheria's governor has not yet officially declared an outbreak of the plague and remains reluctant to do so, Bonkowski finds evidence that the disease has spread widely among the island's inhabitants. He urges the authorities to inform the public of the emerging epidemic, declaring that "the plague has definitely arrived" (Pamuk [2021] 2022, 50). In the absence of vaccines and effective treatments, he recommends traditional methods of restrictive isolation, quarantine, lockdown, and rat hunting, believing that rodents and their fleas have spread the plague-causing bacteria.

Mirroring the conspiracy narratives surrounding COVID-19, speculation that the plague was deliberately brought to the island begins to spread, undermining public and political confidence in Pasha, Bey, and their recommendations. Bonkowski is soon murdered, apparently, in the words of his unknown assassin, for having "brought disease and quarantine back here to plague us" (Pamuk [2021] 2022, 70). After Bonkowski's death, the Sultan orders Bey to oversee the epidemiological efforts on Mingheria. As the story unfolds, rumors and conspiracies proliferate, outpacing the spread of the infection. Managing the outbreak presents challenges

as complex as controlling the actions and beliefs of the islanders, who prefer the less-than-sound but more sacralized judgments of local religious leaders to Bey's more restrictive and limited advice. As the death toll on the island continues to rise and the course of the epidemic begins to resemble that of *The Plague*, a cascade of political events unfolds, and the story gradually focuses more and more on Mingheria's struggle for independence and its transformation into a nation-state (Tüfekçioğlu-Yanaşmayan 2022, 421).

In doing so, the novel alludes to how divergent social interests constantly overlay and contradict efforts to formulate and implement a coherent response to the outbreak and spread of infectious diseases. Moreover, similar to the public reaction in *The End of October*, Bey observes that it is not the contagious disease but the social response that causes an anomic state through a process of social disintegration and breakdown of solidarity. In Bey's own words, "[t]here is not trust or respect left in the state and its soldiers. People have lost all hope in the outbreak being stopped, and feel they can only rely on themselves for survival" (Pamuk [2021] 2022, 585). Nevertheless, he argues that the biopolitical response to a disease much more dangerous than COVID-19 must be comprehensive to succeed: "If we are to end the outbreak, people must remain afraid, and we must not relent" (Pamuk [2021] 2022, 596).

As in the COVID-19 pandemic (van Bavel et al. 2020), the public health measures deemed necessary to mitigate the effects of the plague outbreak require coordinated social and political efforts, demand substantial collective behavioral change, and impose significant health and economic burdens on individuals. In this sense, *Nights of Plague* alludes to the need for a form of collaborative advice that integrates the production of knowledge from diverse disciplines, aiming to align collective and individual behaviors with the epidemic patterns of infectious diseases. The novel also shows how scientific advice is not necessarily the decisive argument in political decision-making. Instead, it is often only an external element that political actors integrate into the logic of their respective political fields frame according to their individual interests—especially in situations where political interests diverge or political power is shifting. Concurrently, the fast-paced nature of the crisis, combined with the evolving political struggle, requires repeated social adjustments. This results in changing recommendations and disseminating conflicting information, leading to public confusion and undermining scientific authority.

Therefore, the plague "provokes a crisis of epistemological authority for a humanity that positions itself as the master of nature, seeing as this mastery depends predominantly on knowledge. At stake in such a crisis are the scope of claims to knowledge, the power and legitimacy of different methodologies of reasoning, and the relationship of these to conceptions of humanity's ontological supremacy" (Ummann 2021, 40). The crisis pertains not primarily to internal dysfunctions of the institution of science but to the public understanding of science, or lack thereof, and a societal inability to cope with configurations of persistent uncertainty. What Bey

does is to observe, analyze, adjust, and repeat this process consistently. This practice of trial and error in formulating and testing hypotheses, here through observations, is how science pretends to work, is supposed to work, and often actually works. All Bey claims to offer through his advice are truth assumptions adjoined by the recognition that the epidemic's uncertainties limit the validity and reliability of these statements. In turn, Mingheria's institutions and society struggle to live with the uncontrollability that is a constituent feature of this uncertainty, as many societies did with COVID-19.

Attribution

Ashoke Mukhopadhyay's *A Ballad of Remittent Fever* presents the uncontrollability of infectious diseases and epidemics as a temporal continuum rather than a finite event. Set in Bengal, the book explores the personal and professional lives of four generations of the Ghosal family, three of whom were doctors, between the late nineteenth century and the early 1970s. The novel covers a period of significant biomedical advances and constant disease outbreaks in and around Bengal, including cholera, leprosy, plague, kala-azar, and malaria. Bengal as a geographic and social location demonstrates, among other things, how infectious diseases emerge and persist at the intersection of biological and social space, cluster around environmental and social inequalities, and add to and connect with the effects of health inequities and previous diseases present in different population groups. In general, the stages of an epidemic that receive considerable societal and scholarly attention are its outbreak, growth, and climax (Charters and Heitman 2021, 213). By contrast, the novel displays, in particular, the remittent dynamic of epidemics.

As the crisis phase of an epidemic passes, societal attention often wanes because the disease no longer seems to warrant large-scale intervention. However, a disease can be particularly persistent if it finds a biological niche and becomes part of the public health condition that society accepts and normalizes. In both cases, societal attention often recedes, a pattern we have experienced throughout and are still witnessing within the context of the COVID-19 pandemic. The end of an epidemic is rarely, if ever, a discrete event but “perhaps always ever an asymptote, never disappearing but rather fading to the point where its signal is lost in the noise of the new normal, and even allowed, in some imaginable future, to be forgotten” (Greene and Vargha 2020, 36). *A Ballad of Remittent Fever* juxtaposes the signals of different diseases and outbreaks lost in the noise of a lasting yet incrementally receding entanglement of epidemics with that of substantial and incremental progress in biomedical research and medical practice.

The earliest strand of the story, told in a non-linear fashion, begins at the height of the British Raj in 1884. Dwarikanath Ghoshal, who comes from a traditional, conservative, high-caste Bengali family that is wealthy by local standards, wants

to “study medicine, come what may” (Mukhopadhyay [2018] 2020, 3). His father, however, considers modern medicine a heretical idea and disowns him when Dwarikanath remains committed to becoming a medical doctor: “Dwarika had only ten rupees left after using this money for his admission fee. Uncertainty loomed large over him. A wealthy and well-known businessman called Edward John Smith had been surprised to see the handsome young man, who looked gloomy and had possibly been starving, sitting with his back propped up against the water trough for horses, near the entrance to the Medical College. The scene resembled a painting” (Mukhopadhyay [2018] 2020, 4).

Dwarikanath's coincidental encounter with Smith and his wife is a central fracture in his life course because this relationship develops into a lifelong one that, among other things, provides him with shelter and the material and financial resources to pursue his medical studies. From a literary standpoint, this situation is unexpected and surprising, “a peculiar and as yet unheard-of event” (Goethe [1850] 2014, 17) that underpins the interactions, events, and character constellations throughout the narrative. Sociologically, the convergence of Dwarika's and Smith's paths is not causally determined. Instead, the event is a coincidental intersection of two independent causal series difficult or impossible to anticipate, a so-called Cournot effect (Boudon 1986, 175). While this encounter remains the central unheard-of event throughout the story, Dwarikanath, his son, his grandson, and his great-grandson repeatedly encounter such situations in constellations of individuals and infectious agents. They experience cascades of Cournot effects as a significant feature of epidemics.

Here, a typical causal chain involves the unanticipated and random convergence of environmental and social constellations, including individual and collective human errors. Such an interactional perspective on epidemics asserts that their emergence and persistence as social facts depend, at least in part, on the continuous emergence of events that owe their existence to separate causal chains that converge only by chance. Each Ghoshal knows how these cascades limit their ability to act as medical doctors and researchers. Nevertheless, each of them exercises a different belief in their ability to act as authorized agents for various interests based on their own decisions and choices—which Meyer and Jepperson label ‘actorhood’ (2000, 103–106). Especially Dwarikanath, who, according to his son, is “eternally in search of knowledge” (Mukhopadhyay [2018] 2020, 177), exercises a rational, even stubborn desire and belief in his ability to learn in and heal through his work as a doctor and researcher.

Throughout the story, Dwarikanath maintains a disenchanting worldview and a particular scientific outlook on nature. He applies and develops scientific knowledge in his medical practice, rationalizing diseases, epidemics, and medical practice. In doing so, however, he displays a false sense of agency. He overestimates his autonomy to act. This false consciousness is not so much about his degree of control over

formulating his goals and choosing the approaches to achieving them; rather, it relates to the potential impact of his professional actions, which is severely limited in a web of epidemics that doubles as a cascade of disorder. Congruently, he extends his responsibility and that of his scientific and medical colleagues to effects beyond their capacity to control. Moreover, he struggles to understand the actions and practices of others that he perceives as irrational, such as the skepticism of many villagers about vaccination, in part induced by traditional medical and religious authorities (Mukhopadhyay [2018] 2020, 188–191). Within the story's context, Dwarikanath is hardly the only character who displays this false attribution of autonomy and responsibility to oneself and others.

As physicians and researchers, the Ghoshals never control the activities and mechanisms necessary to realize their professional interests. These are always partially or fully dependent on the actions of others or environmental forces. Ignoring the contingent pattern of action and its consequences can lead to mistakes, such as seeing one's medical and scientific practice and its effects only as an outcome of purposeful decisions. At the same time, the pattern of coincidental intersection of independent causal chains of social action frames a central aspect of the social dimension of epidemics as a sequence of random events. According to the proposed interpretation, *A Ballad of Remittent Fever* calls for a sincere acknowledgment of the chance encounters and broader structural forces that shape the specific choices and effects of science and medicine in general and in the context of epidemic crises in particular.

Conclusion

For COVID-19, a pattern of misattributing responsibility to particular actors was evident in the tendency to overemphasize responsibility for hardly controllable outcomes that were more likely the product of multiple Cournot effects. For example, the rapid development of mRNA vaccines is, on the one hand, a testament to the productivity of the biomedical sciences, pharmaceutical research, and translational efforts. On the other hand, “the path to mRNA vaccines drew on the work of hundreds of researchers over more than 30 years” (Dolgin 2021, 319). In this sense, the emergence of COVID-19 coincided with the timely maturation of vaccine technology, at least to some extent, as the crisis significantly accelerated its development. The misattribution of uncontrollability was also prevalent throughout the pandemic. For example, in many cases, political actors overemphasized the alleged uncontrollability of the pandemic's dynamics to avoid being held accountable for the detrimental consequences of their actions and inactions. Various forms of ignorance are a central motive for such misattributions: actors may misattribute out of genuine ignorance, lack of knowledge, or strategic ignorance (McGoey 2019). In the latter context, mis-

attributions are tools for claiming credit or avoiding blame, whether for oneself or others (Weaver 1986).

These and the other aspects of the autonomy and social responsibility of science during the pandemic reflected through the literary lens in the previous sections require further investigation. The proposed reading of *The Plague* emphasizes that tracing the interconnected elements underlying an epidemic requires more than knowledge of the disease itself. A sociology of knowledge perspective on *The End of October* explores the epistemic and organizational constraints researchers face in developing solutions to problems that transcend their research paradigms. My reflections on *Nights of Plague* show how different social perspectives and interests continually influence the formulation of scientific advice and subsequent policy implementation. These configurations are further complicated by, among other things, the influence of disciplinary patterns of science. While these characteristics can be beneficial in terms of specialization and efficiency, they can also lead to a lack of understanding when addressing complex problems across disciplinary and political boundaries. The reading of *A Ballad of Remittent Fever* underlines the idea of a false consciousness of actorhood and the misattribution of responsibility for outcomes beyond anyone's control or in control by other forces.

Each reading focuses on the scientists and doctors at the center of the novels and the constellations in which they faced disease outbreaks and their consequences. While they share many similarities, these literary characters differ in various ways. Not surprisingly, Bernard Rieux in *The Plague*, Henry Parsons in *The End of October*, Nury Bey in *Nights of Plague*, and Dwarikanath Ghoshal in *A Ballad of Remittent Fever* have almost identical scientific worldviews: they share an essential belief in their individual and collective agency through the use of reason and what they perceive as sound decision-making; they believe in basing their judgments on observation, experimentation, and evidence; they seek to explain natural phenomena through objective, testable theories, and they value skepticism, critical thinking, and constant revision in the light of new data. In short, they are scientists and act as scientists are supposed to. Yet with the exception of *The End of October*, each novel allows for an interpretation that constructs the rational scientific worldview as flawed—an idea that carries ambivalent consequences.

Of course, Rieux, Bey, Parsons, and Dwarikanath face situations in which this scientific outlook, along with the knowledge and skills it fosters, offers profound advantages. For example, Bey and Rieux base their epidemiological judgments on sound observational evidence, as they should. Accordingly, they build their recommendations on how to respond to the disease on this very evidence. At the same time, they often fail to anticipate and understand aspects of the social dynamics of disease. Especially *A Ballad of Remittent Fever* and *The Plague* can be read from a perspective that deconstructs a scientific worldview as a significant detriment to understanding the perspectives, decisions, and actions of others who do not share the

same worldview and who, from the perspective of this standard model of scientific reason, act irrationally. Among Bey, Dwarikanath, and Rieux, the latter seems to be the only one who, through the course of the plague epidemic in Oran, learns to recognize this shortcoming and succeeds in overcoming it. To understand all aspects of the epidemic, he argues, it is necessary to combine mechanistic knowledge of the disease with an understanding of the social processes that frame the disease, and vice versa—also a fitting conclusion for science's experience of COVID-19.

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A World After the Pandemic

COVID-19 Narratives, Environment, and Histories of the Future

Jim Scown, Keir Waddington, and Martin Willis

In this chapter, we offer the first examination of a new corpus of pandemic-inspired predictions from the anglophone world of our global shared future. COVID-19 and the resulting pandemic offered a fertile arena for prediction, refocusing attention on the limits of humanity and how societies should manage the long term at a moment of considerable uncertainty. Across a wide range of media, which included news articles, opinion pieces, blogs, social media, and creative outputs, commentators in the first two waves speculated on life after the pandemic. Those making these predictions seized on the collective sense of crisis to present narratives that reveal a complex layering of different interpretations. These are overdetermined by varying social, political, economic, or ideological positions. What the future might hold is core to the analysis presented here. Specifically, the corpus reveals the centrality of climate, the environment, and the workplace to those who were offering a perspective on what the post-pandemic future might or should hold. These are the themes we interrogate in detail here; first with a wider lens to explore COVID-19 and the global environment and economy, and then through a narrowing of focus to investigate predictions based around the urban workplace as an environment and site of capitalist response. As we do this, we extend recent work in the area of critical future studies. We conclude that narratives compete with one another to take control of the post-pandemic future. While there is a great deal of emerging scholarship focused directly on COVID-19 and the pandemic, our intervention offers a new understanding of how the future beyond COVID-19 was understood in the lockdown years (2020–2021).

In an opinion piece for the *New Yorker* in May 2020, Kim Stanley Robinson, science fiction writer and the author of *The Ministry for the Future* (2020), a novel depicting climate action in a carbon-fueled and chaotic future, connected COVID-19 to the climate crisis. Robinson saw COVID-19 as a harbinger of climate shocks to come at different future moments. Connections between the pandemic and anthropogenic climate change are evident across numerous predictions for a post-pandemic future, whether commentators were considering a near future with dangerous climate tipping points or a more distant point in time depicting cataclysmic climate break-

down. The narratives explored in this chapter highlight how, when it came to environmental and societal crisis, many commentators during the first two waves of the pandemic saw a clear link to the climate emergency and ecological breakdown associated with the discourse surrounding the Anthropocene and its lasting—and potentially irreversible—influence on the planet's ecosystems, and biodiversity. In making this connection, the virus and the pandemic were used to imagine a different future relationship between humanity and the nonhuman world, but they remained imprecise as to when this future would occur. In these narratives, the virus was presented as a last warning for society to change course, a precursor of future crises to come. Yet, as our analysis reveals, both virus and pandemic were constructed as a moment of transformative change; an example of the speed at which nations could act to step back from catastrophe or individuals could see a different relationship with the nonhuman world emerging. What becomes visible is both the varying social, political, economic, or ideological positions these predictions reflected and the temporal dimension of each narrative: predictions changed depending upon the particular moment in the pandemic when they were created. Two key questions emerge: What do these narratives tell us about how the post-pandemic future is being imagined or predicted? What role do they play in promoting or making real the future they foresee?

At the start of the pandemic, academic commentators were quick to try to answer a fundamental question: what would the future look like? All aspects of society, culture, politics, the economy, and the environment were considered. In their predictions of a post-Covid future, dystopian and optimistic assessments competed for attention. Medical historians offered critical insights into the history of pandemics, from the Black Death to the 1918/19 influenza pandemic in Western Europe and North America, to draw lessons about what the future might hold. Environmental historians endeavored to provide context as the nonhuman crashed into the human world, highlighting a future where we needed to be more conscious of the interconnections between the human and nonhuman, as well as between social, political, racial, and environmental inequalities that the pandemic had further illuminated (Alagona et al. 2020).¹ Literary scholars thought about the role of metaphor to enable both analysis and representation of a time to come (Craig 2020; Kohlt 2023). Scholars also moved quickly to show that history does not simply repeat itself; pandemics differ in their social dynamics and political aftershocks (Arnold 2020). Others were more explicitly political, setting out a manifesto for change that attacked neoliberal models of healthcare, for example (Cooper and Szreter 2021). Many of these works drew comparisons with previous pandemics to outline lessons for the future. Yet

1 The American Historical Association has collected these responses into a resource: "A Bibliography of Historians' Responses to COVID-19," <https://www.historians.org/news-and-advocacy/everything-has-a-history/a-bibliography-of-historians-responses-to-covid-19>.

while scholars drew on their own expertise to consider various potential futures, the pandemic was already generating numerous predictions of what a post-Covid future might hold. Such predictive narratives—written across multiple media and emerging from numerous sources—are an invaluable record of pandemic perspectives and demand both our curation and attention.

Before we explore the predictions embedded across a range of narratives, in the first section of the chapter, we outline our corpus and our methodological framing. In doing so, we consider the key typologies—forecasting, backcasting, and foresight—through which the future is predicted. Here we challenge simple binaries of utopian versus dystopian to show how thinking about the future enables on the one hand speculations on what might be different—undertaken by futurists or imagineers—and on the other forecasts that draw more from trends underway and quantitative data. The coronavirus pandemic provided a potent, shifting arena for imagineers and forecasters but, as we suggest, the future was open and precarious as different scientific, cultural, and political notions of the future collided or interacted in the face of uncertainty. The next two sections provide critical examinations of possible post-pandemic futures that focused on the environment and the interconnections between COVID-19 and climate futures and between COVID-19 and the future of the urban workplace. These sections unpick the temporality of ideas of utopia and apocalypse, concealment and illumination, transformation and reversion, to explore how familiar narrative tropes helped structure responses to the coronavirus pandemic and how different modes of prediction co-existed. Rather than seeing the future predictions operating somewhere on a continuum between utopia and apocalypse, we investigate what futures were at stake in the first two waves of the pandemic, and through them what political and ideological standpoints were being advanced. With multiple futures up for grabs, we argue that narrative forms play an important role in controlling the future, shaping how both overlapping and contradictory versions of the post-pandemic future are contested and realized.

Future Studies: Forecasting and Imagineerings

The Covid Future Narratives project run by the ScienceHumanities Initiative at Cardiff University examined narratives produced and published across a range of genres during the first two waves of COVID-19 (March 2020 to January 2021), which broadly corresponded to the project timescale and funding. Unlike other projects that used questionnaires or experiments to survey people about their expectations of life after COVID-19 (Lewandowsky et al. 2021), we were interested exclusively in narratives in the public domain that tried to predict the future. We did not limit our narrative choices with other restrictions, aiming to capture as much as possible in what we believed (or hoped) would be a short timeframe as the pandemic passed.

By its very nature, the evidential basis for the corpus was broad: post-Covid futures were present in a wide range of epistemic objects and materialities. Although limited to Anglophone material, the project collected and analyzed everything from newspapers and magazine articles to academic writing and poetry to recorded media, film, social media, cartoons, and illustrations. The corpus included narratives written from the perspectives of the Global North and Global South, although we recognize that many of the predictions collected came from those in privileged positions that allowed them to reflect on what the future might look like. Issues of power—about who has the opportunity to predict the future, in what ways, and over what timescales—are never far away in these predictions. While book-length works were clearly underway during 2020, these were not published before the end of our selected period. There were also numerous narratives dealing with life during the pandemic, as opposed to the future beyond the pandemic.² These too were not considered for our corpus. Employing the concepts from future studies offers a starting point for analyzing this corpus but, as we reveal, a more critical reading that incorporates the temporal is needed.

As scholars working on the sociology of futures highlight, how different societies predict the future, and how that future is realized and contested, offers crucial insights into how societies view the challenges ahead. Where COVID-19 encouraged sociologists to lay claim to analyzing the future, future studies is the manifestation of the systematic and interdisciplinary study of social and technological trends, including environmental trends, and how they will impact people and societies in the future (Adam and Groves 2007; Andersson 2018; Beckett and Suckert 2021). As a loose discipline, future studies has its roots in the nineteenth century but emerged in the 1960s with a boom in various forms of prediction. However, rather than being a way to predict the future, future studies drew attention to future issues that had to be faced in the present. Rejecting what was seen as the fantasy and superstition of earlier speculations, the initial hope of future studies was to find a systematic and scientific approach to an “onrushing future” and the challenges humanity faced (Andersson 2012, 1411; Andersson and Rindzeviciute 2012). What was initially at stake was a desire to deal with socio-economic and political problems with the same confidence as problems in the sciences. Predicting the future—then as now—was constructed as offering a means of structuring action at a national, transnational, and global level (Helmer 1967, 50–51; Andersson 2012).

Future studies not only brings an awareness of the typologies used to predict the future—forecasting, backcasting (how actions in the present might bring about specific futures), and foresight—it also shows us two competing visions of how the

2 There were exceptions, such as Bethany Clift’s dystopian *Last One at the Party: Her New Life Began at the End of the World* (2021), which imagines a terrifying pandemic yet to come and frames COVID-19 with a certain nostalgia.

future has been thought about and predicted. This is more than a simple binary of utopian and dystopian. As Jenny Andersson notes in the *American Historical Review*, one vision is “of the future as an is: an object of science of which certain predetermined traces could be found”; and a second of “the future as a becoming: an object of the human imagination, creativity, and will” that helps “generate visions to explore the action they can take to shape the future” (2012, 1413). What connects both is how the future is always political and an arena for intervention, even if there has been a radically different understanding of the ways in which visions of the future can control or protest against certain futures. This political dimension is visible in the work of the UK government’s Futures, Foresight and Horizon Scanning team, part of the Government Office for Science (GO-Science), which is committed to future thinking, foresight, and horizon scanning as tools of government. For the GO-Science Futures team, “thinking about the future is fundamental to policymaking” (UK Government, Futures, Foresight and Horizon Scanning), an approach that echoes the implicit and explicit political messages found in a range of post-Covid narratives explored here.

While these different approaches are tied up with the history of normalizing the future since 1945, the coronavirus pandemic enabled each method of future prediction identified by future studies to thrive. The post-pandemic future—especially of social and environmental change—is both an object to be identified by science and also by a utopian- or dystopian-inspired imagination. In this sense, thinking about the future enables, on the one hand, imaginative speculations on what might be different—undertaken by futurists we might call imagineers—and, on the other, forecasting, which tends to rely more on statistical data analyzed by futurists we might call forecasters. The split between imagineers and forecasters often falls along lines of political power: as we shall see, those holding political power during the pandemic were more likely to stage their future narratives as forecasts. For imagineers, “[t]he future must be composed not only of the necessary or the possible, but also of the desirable and hopeful” (Andersson 2012, 1424). However, in both cases, anticipating possible futures also contains the need for some form of action in the present as predictions about the future are folded into the present. What is often at stake is different scientific, cultural, and political notions of the future, the limits of humanity, and how we manage questions relating to the long term. Such approaches are visible in the post-pandemic narratives examined in this chapter.

While future studies helps us detect the broad approaches of imagining and forecasting (and also techniques employing backcasting and foresight), the interdisciplinary field of critical future studies, as conceptualized by Luke Goode and Michael Godhe, encourages an examination of “the scope and constraints within public culture for imagining and debating potential futures” (2017, 108). For Goode and Godhe, if the ability to imagine an alternative future atrophied in the face of neoliberal hegemony, global events from the Arab Spring to Black Lives Mat-

ter sharpened contemporary sensitivity to possible futures (2017, 114). Mounting evidence of anthropogenic climate change and fears of transgenic pandemics in response to swine flu or SARS added further impetus, but this sensitivity to possible futures was heightened by COVID-19 as an emergent phenomenon. COVID-19 was an historical moment and crisis that generated a range of possible and shifting futures claimed by forecasters and imagineers alike. Yet critical future studies reminds us that imagined futures—or ‘futurescapes’—are founded on assumptions from the past and present and are shaped by numerous contested and competing discourses. Within this framing, critical future studies asserts how the future may be more open—and perhaps more precarious—than previously envisaged, highlighting how ‘futurescapes’ are “found in almost any conceivable domain of culture” with our capacity to imagine, desire, or forecast the future as much an affective as it is a cognitive process (Goode and Godhe 2017, 120). However, as critical future studies also suggests, it is important to differentiate between future imagined and future imaginary. The latter, as Goode and Godhe suggest, is more negative. Equally, we need to be conscious of the tensions between future presents, which are both imagined and generated by present actions, and present futures, which are often presented as seemingly inevitable as they extend current perceived trends (Adam 2010). While it is easy to focus on negative representations that present the future as “a site of crisis” in Sherryl Vint’s words (2016, 12), as Goode and Godhe show, we need to be equally sensitive to how radical alternatives of the future can be a form of “utopian thinking” that expands our horizons (2017, 118).

These approaches offer a starting point to analyze our corpus of post-Covid narratives. Future and critical future studies provide a critical framing that reveal multiple and overlapping discourses, how they appear across multiple cultural domains, their power to control or subvert possible post-pandemic futures, and the political salience of these narratives. Where future studies and critical future studies draw attention to how utopian and dystopian modes co-exist, they overlook the importance of recognizing that possible futures are, as our analysis reveals, also precarious and have shifting temporal frames, something overlooked in work which has surveyed people’s expectations of life after COVID-19 (Lewandowsky et al. 2021). These temporal frames operate in a number of ways. For example, when a post-pandemic future would start was seldom defined in the narratives examined as, in the words of James Mattis, former US defense secretary, the horizons being scanned remained “uncertain” (Charters 2020; “COVID-19” 2022). This uncertainty and the period of crisis generated by COVID-19 offered a productive space to explore starkly different visions of a post-pandemic future to create a complex over-layering of predictions as imagineers and forecasters jockeyed for authority over what a post-Covid future might hold. The future, whether that be near or distant, operated as a space that could be staked out or conquered. But our corpus also reveals how, when future relationships between humans and the environment were envisaged across multi-

ple contexts, larger questions were being asked about where the planetary and the personal are placed. Equally, they draw attention to tensions between a sense of inevitability in the predictions being made and, as the British poet Kae Tempest asks, “the scope for hope” in the future, imagined or forecast (2021). The next section of this chapter provides a critical examination of how COVID-19 and the climate emergency and economic response were interconnected in predictions of multiple post-pandemic futures before we turn, in the final section, to a different type of environment, the urban workplace.

Covid and Climate Futures

The coronavirus pandemic provided renewed opportunities for commentators to argue that transgenic pandemics, the climate emergency, and the destruction of nature were inextricably linked. Such claims echoed fears that have been manifest since at least the 1950s of the threat of looming ecocide in the future. In the early months of the pandemic, when uncertainty was at its most acute, and against a background of increasing calls for precautionary action to limit the possible and imagined futures of anthropogenic climate change (Adam and Groves 2007), the future was imagined at a global level in apocalyptic terms. Canadian cartoonist Graeme MacKay (2020) captured the parallels between the COVID-19 and climate emergencies that characterized this strand of thinking about the future. The threat of climate breakdown and biodiversity collapse was visualized via a familiar rhetoric of the pandemic: the waves to come. MacKay’s initial political cartoon (Illustration XII.1) drew on the recognizable visual language of a tsunami or tidal wave to envision an economic emergency following the health emergency. The cartoon lent itself to being memed and went viral. Twitter users developed the imaginary of the crisis, adding future waves. In response, MacKay modified his cartoon in May 2020 to create a new authorized version that added much larger, less manageable waves of climate change and biodiversity collapse. The final cartoon (Illustration XII.2) borders on the apocalyptic, visualizing a narrative, put forward in plain terms by the World Economic Forum, that “more planetary crises are coming” (Dixon-Declève et al. 2020).

Simultaneously, these crises were seen as symptoms of the same underlying cause. The complex origins of the pandemic, likely the result of a virus caused by a zoonotic spill-over event that many have traced to the same extractive global economy that is destroying wild places and warming the planet, presses at any easy separation of these emergencies as separate events. This is at the heart of Bruno Latour’s identification of the coronavirus pandemic in terms of “an ongoing and irreversible ecological mutation” (2020)—a mutation in Earth systems and humanity’s relationship with them, but also, and perhaps more optimistically, a mutation towards more ecologically attuned relations between capitalist society and the non-

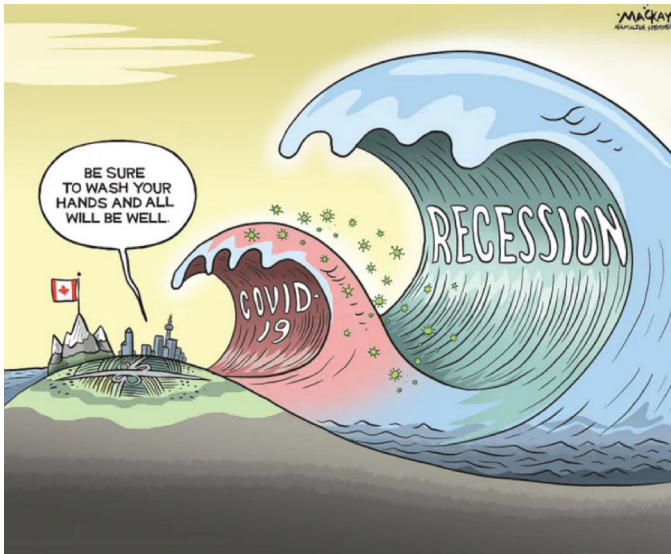
human world. In such predictions of the future, the apocalyptic, the desirable, and the hopeful could overlap. This was especially evident in the spring of 2020, when both the near and far future seemed most uncertain and the temporal space for imagining alternative futures was, therefore, most open. For the English primatologist and anthropologist Jane Goodall, COVID-19 was thus both an expression of wider socioecological breakdown, brought about by a diseased relationship between humans and the rest of nature, and a chance to reset that relationship: “We may think that nature is something separate and we can distance ourselves, and live in our little bubble—it’s not true,” she says in the short documentary film *We Are Nature* (Hodgson and Challenger 2021) alongside slow-motion footage of a bubble popping. Goodall’s words draw on an implicit organicism that historically constructs and frames the relationship between the human and nonhuman world in terms of unity and wholeness, as do many post-pandemic narratives of the relationship between society and the environment. These narratives develop from a sense that all life is interrelated, a vision of nature as an ordered system thrown out of balance by human action or, in more focused diagnoses, the extractive and exploitative workings of global capitalism. In narratives such as Goodall’s, the spread of COVID-19 reveals an organic unity belied by the false separation of the human from the nonhuman world, a separation that is in turn considered part of the lineage of the pandemic’s emergence.

This mode of thinking about a range of post-pandemic environmental futures nevertheless supported starkly different visions. The documentary in which Goodall made her diagnosis of socioecological breakdown argued for new-found appreciation of the intricate connections joining the flourishing of humans and other species, making the case for an ecological holism. By contrast, a BBC article on the future of work—which is explored in more detail in the next section—envisioned an environment where the many connections between human and nonhuman life are limited and carefully policed (BBC Visual and Data Journalism Team 2020). Bacterial sprays, antimicrobial surfaces, and touchless technology maintain a sanitized workplace and a future that is the antithesis of Goodall’s message; a world where life is lived in a bubble, as the article’s aesthetics seems to imply.

In this recurring rhetoric of bubbles and waves, the pandemic becomes a way of defining the future, a kind of pattern for responding. In the lead-up to the United Nations Climate Change Conference (COP26), the *Guardian* newspaper ran a series of statistics on the climate emergency. The pandemic metrics of cases, hospitalizations, and deaths were repurposed, with the newspaper using an identical aesthetic to capture changes in Atmospheric CO₂, Arctic sea ice, and the proportion of the UK’s energy needs being met by low-carbon electricity. Approached as a series of narratives, readers of the newspaper’s website were invited to see this climate data, not only as a catalogue of the past but also as an insight into the future. These graphs, as diagrammatic narratives of forecast, were designed to show the ongoing loss of

melting ice caps, the transformative hope of low-carbon electricity. Part of the terror of the line denoting atmospheric CO₂ surely stems from the uneasy feeling that the viewer is looking at part of a wave—a wave that is a very long way from cresting. However, this presentation of climate data proved ephemeral: after COP26, the *Guardian* removed the data visualization from its homepage to its archive while the COVID-19 data remained. There are clearly issues of temporality and representation at stake, then: first in the aesthetics of the statistics generated for COP26, where the data was presented as two near-identical bars to generate an implicit comparison between COVID-19 and climate crises that inadvertently highlights their different temporal scales; second, in how the data visualization proved transitory—appearing and re-appearing at particular moments of political and global attention.

Illustration XII.1: Editorial Cartoon by Graeme MacKay.



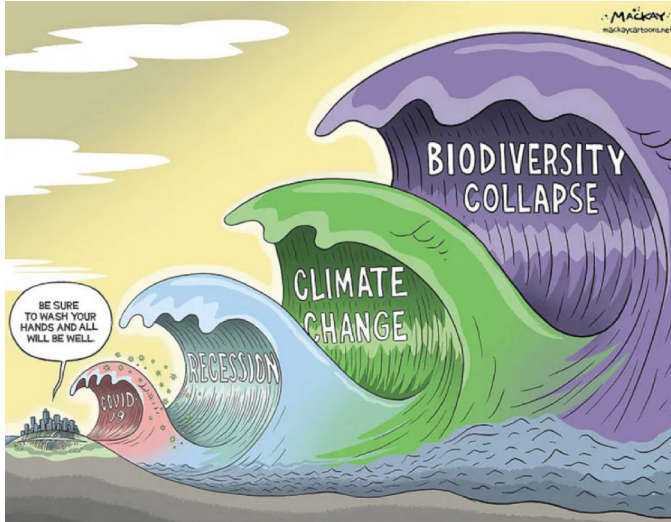
From *The Hamilton Spectator*, Wednesday, March 11, 2020.

The coronavirus pandemic also generated more hopeful, at times utopian, narratives of the future. This is especially prominent in writing from the early months of the pandemic when predictions of a post-pandemic future were framed against a pervading sense of crisis or trauma. Here the pandemic was repeatedly framed as a chance for “structural systemic economic change” (Dixson-Declève et al. 2020) and a “transformational leap towards a sustainable society” (Vince 2020). One Twitter user imagined an environmentally friendly city of tomorrow with lines from *Back to*

the Future (1985) and images of an unusually quiet Birmingham traffic control center (@Dongapalouza 2020). The Canadian author and journalist Naomi Klein (2020) expressed this idea of an environmentally friendly city of the future in the text commentary that accompanied the short film *A Message from the Future II: the Years of Repair* on the online platform for *The Intercept*, a US non-profit news organization. The film was a sequel to the Emmy-nominated short *A Message from the Future with Alexandria Ocasio-Cortez*, which launched the optimistic Decade of the Green New Deal in 2019. In her 2020 text, Klein explains how in conceiving the sequel as a response to COVID-19, she and the other producers wanted to explore the role of the utopian imagination at a time of crisis. Founded on workers' rights, reparations for racial injustice, and environmental action, *A Message from the Future II* presented an optimistic political message from four future commentators that highlight bottom-up radical transformative and environmental change. In her text, Klein asks, "Do we even have the right to be hopeful?" For Klein, COVID-19 had ushered in changes few had imagined a year before. For her, this provided a space to think about and imagine a "future worth fighting for" as an antidote to predictions that looked like "our present, only worse." As Klein explained, "If the only portrayals of the future we ever see are of some mix-and-match fascism and ecological collapse, the forecasts start to feel inevitable." Where the *Guardian's* statistics served in terms of forecast, then, these examples are more in the imagineering mode of future studies—futures composed, to return to Jenny Andersson's words, "not only of the necessary or the possible, but also of the desirable and hopeful" (2012, 75). In response to the individual and societal sense of crisis and trauma in the early months of the pandemic, imagineers often thought on a global scale. They imagined hopeful futures that, rather than being exclusionary, presented the climate and ecological emergencies as opportunities to address various economic, social, political, health, and racial inequalities.

As COVID-19 shut down nations and economies, there came a renewed awareness of the agency of the nonhuman world. The virus exposed connections between "species, countries and geopolitical issues," explained the World Economic Forum (Dixson-Declève 2020), framing the coronavirus pandemic as an opportunity for its 'Great Reset' agenda, which we examine in more detail in the next section. But for many, the action and spread of COVID-19 brought to light what was long hidden, the racist inequality and exploitative labor on which the global economy is built. These familiar narrative tropes—of disguise and illumination, revelation and withdrawal—were used to make sense of the purportedly novel coronavirus situation. For Klein, "Covid-19 acts as a kind of character in the drama" (2020). This agency is part of how the film *A Message from the Future II* seeks, in Klein's words, "to repair the broken stories—of supremacy and dominance—that brought us to this harrowing precipice."

Illustration XII.2: Revised editorial cartoon by Graeme MacKay.



From <https://mackaycartoons.net>

While many of these narratives focus on the grand scales of planetary crisis and historical process resonant with the Anthropocene, the pandemic ‘pause’ also supported environmental narratives that were more personal in scope. In the UK, the early months of the pandemic coincided with a glorious spring, a season loaded with the narrative symbolism of nature’s emergence or—in widely circulated photographs from the town of Llandudno—goats reclaiming deserted Welsh streets (Stewart 2020). Writing for the BBC in June 2020, the media executive Emily Kasriel in her advocacy of Deep Listening mused on how the “feeling of awe that we experience when we spend time in the natural world”—as many did on daily walks during the UK Spring 2020 lockdown—might lead to greater environmental awareness and activism. At once haunting and reassuring, encounters with wild animals reappearing in urban settings were read as a reminder that even in a global crisis nonhuman nature was resilient. The claim ‘nature is healing’ quickly became a meme, drawing on ideas that because of the absence of people the disruptive impact of natural or environmental disasters left environments in peace, allowing them to thrive. ‘Nature is healing’ was used to represent everything from an imagined resurgence of the natural world, often (darkly) reminiscent of representations of a post-apocalyptic future, to the more banal recording of the return of pasta and toilet roll to British supermarket shelves.

But Kae Tempest was less optimistic, asking “What scope is there for hope?” Tempest used poetry to formulate future possibilities for the excluded, employing

what she calls “radical empathy” to engage her audience with “an idea of the future that informs the present” (Spiers 2019, 108). As Emily Spiers notes, the present and the past are “linked with the future through her self-stylized embodiment of the poet-prophet figure” (2019, 108). In *Tempest*’s poem “2020,” she draws a Biblical parallel between “Noah stood back from the boat / Drowning in the doubt that his own hands could make it float,” and the experience of living through a crisis of uncertain duration and impact, with the uneasy feeling of more to come. This not only connects the mythical past to the present but also the need to imagine a future that is “embodied and embedded in processes and events” (Adam and Groves 2007, 11). By drawing on an imaginary of waves and rising waters—latent in *Tempest*’s verse—parallels are invited in “2020” with melting icecaps and the ecological crisis unfolding alongside, and through, the coronavirus pandemic.

As we explore in the concluding section, negative and positive predictions of post-pandemic futures continued to be changeable within the pandemic itself. The optimistic predictions of imagineers aimed to instill hope just as forecasters made connections between COVID-19 and climate change to predict a more dangerous, darker future in which the political implications of inaction were clear. At the same time, as imagined futures also drew on apocalyptic visions of staccato climate disaster, some forecasters saw in the spread of COVID-19 and rapid economic response to the pandemic data support for action on the climate emergency. Amidst talk in Britain of ‘Building Back Better’ from the pandemic (HM Treasury 2021)—or, as the then British prime minister Boris Johnson stated in his keynote address at the 2021 Conservative party conference, “Building Back Beaver” (Curtis 2021)—multiple visions of the future relations between humans and other species, economics and the environment, society, and the nonhuman world, were advanced. It was in this narrative space, in the crossover and competition between these narratives, that forms of environmental and climate action took shape. And, as the ‘Build Back Better’ agenda with its promise of a more equitable and sustainable future suggests, the future of the urban workplace was an important component of these narratives of COVID-19. In the next section, we turn our attention to how the post-COVID-19 workplace was forecast and imagined as a discrete but also interconnected environment.

Covid and Workplace Futures

Writing toward the end of March 2020, Bruno Latour explained how “it is right now that we have to fight so that the economic recovery, once the crisis [of the pandemic] has passed, does not bring back the same old climatic regime against which we were, rather vainly, battling until now.” In explicitly linking anthropogenic climate change to how during the early months of the coronavirus pandemic it became possible to put the global economic system on hold, Latour not only imagined a different fu-

ture but also reflected a body of COVID-19 narratives that focused on the future of work and the workplace. While Latour's desire for a different economic future offered a vision on a grand scale, most narratives of the future of work were much smaller in their ambition; they reflected on returning to the workplace and speculated on potential changes to work environments. Inevitably these narratives of the future workplace coincided with the future of the environment: they recognized (and sometimes elided) the relationship between commuting for work and fossil fuel use, of the inhabitation of cities and their use of energy, and the interchange of global business and its reliance on carbon use through air travel. Written against the backdrop of global economy disruption, and during periods of social restrictions to control the pandemic, these narratives were also focused on a relatively near future; a return to the workplace that was a matter of months or a handful of years away, rather than the further future of human/nonhuman restructuring imagined in the narratives examined in the previous section. As narratives construct these workplace futures, they most commonly use backcasting to tell a story of what might be ahead of us by drawing on historic workplace change that had characterized the decades from the 1950s; with the drive to automation and the introduction of new technologies central. They are also forecasting narratives built on data rather than the imagination. This is the most unsurprising element of future narratives about work. As Jens Beckert showed in *Imagined Futures* (2016), forecasting has always been an important tool for understanding the functioning of the capitalist system in the here and now and in the face of uncertainty. In this sense, Beckert's work suggests that what was already happening in the workplace environment during the first two waves of the pandemic can be seen as an effect of specific future narratives that center on the problem of the contagious human body.

In many of the narratives of work in our corpus, the influence of the social distancing of COVID-19 comes to the fore in workplaces forecast to be inhabited by a markedly reduced human population. At least in part, this emerged from a sense that future workplaces would be disinfected spaces given the heightened sensitivity in lockdowns of the human body as potential carrier of infection through human-to-surface contact. One result of the disinfection of future workspaces are their turn towards automation—where potentially infectious biological organisms are replaced by safer mechanical/digital avatars. A clear example of this is in the work of Jason Schenker, chairman of The Futurist Institute and ranked first by Bloomberg News as the key forecaster in the world. His book *The Future After Covid* (2020) was published early in the pandemic. It argues for taking measures in the present to create a specific and predictable future, or at least make that future more probable. In his chapter on the future of work, Schenker argues that automation will expand in the workplace, leading to a technological acceleration bordering on a further digital technological revolution. Schenker's perspective is likely to be marked by his own investment in such a future. He is also the author of *Jobs for Robots* (2020) and in pre-

vious books on the future has predicted the rise of robots in the world of work. The future forecast by Schenker is one that was already underway for many global businesses and, like those businesses, Schenker's own success is linked with the likely success of that already plausible future. This type of forecasting uses COVID-19 narratives to extend an existing vision of the future rather than forecast or imagine one afresh from new circumstances. It shows how those individuals and organizations perceived to hold power were able to forecast and thus use the coronavirus pandemic to engineer, rather than imagine, a certain future that legitimized the allocation of resources, both in the present and in the future.

Although COVID-19 appeared to threaten high-carbon, high-consumption industries, Schenker was not alone in forecasting the rise of automation in the workplace. The British-American management consultancy company Willis Towers Watson (2020), in their infographic on the future after the pandemic, also claim that automation will rise. Management consultants appear particularly invested in post-Covid automation. One of the most powerful, the US consultancy firm McKinsey, in their "Future of Work After Covid-19" web presentation (2021), argue that "The pandemic accelerated trends in [...] automation." Because of the "disruption" to "physical proximity," "remote" and "virtual" working are much more likely future realities in the workplace. For McKinsey's consultants, this is positively regarded as a new "flexible" mode of conducting business, which they enmesh within a "faster adoption of automation and AI." In order to further the cause of the disinfected workplace, argues McKinsey, "work arenas with high levels of human interaction are likely to see the greatest acceleration in the adoption of automation and AI." Such visionary insight is recursive; McKinsey and Willis Towers Watson aim to monetize their forecasting through providing further consultancy support to companies who will make their initial vision a future reality. As Willis Towers Watson argue in their advertising, "You see the future. We help you get there" (2020). This clearly parallels the findings of Mariana Mazzucato and Rosie Collington in their book on management consultancy, *The Big Con* (2023). They argue that management consultancy firms have always repurposed their existing advice to take advantage of new business opportunities, regardless of whether these are effective and productive strategies for future work.

Forgotten in this drive toward a techno-utopia for our working future are the environmental implications of the increasing use of energy by automated and computer-driven technology, or of the mining necessary to support this AI revolution, or even of the pollution generated. Notwithstanding a strand of predictions that linked work to environmental change to imagine a greener post-Covid future (Dixon-Dèclève 2020; European Commission 2020; Klein 2020; Tagliapietra et al. 2022), no consideration is given in management consultancy visions of the post-Covid future to whether a reconceived workplace could offer green solutions. While reductions in the travel of people for work is often signaled as reducing carbon emissions, there is

no connection made to the introduction of other environmental concerns that come with an increase in the usage of technologies.

Nevertheless, there are visions of an automated future that strike a more cautionary note. The Asia-Pacific Economic Cooperation (APEC) group, for instance, undertook a survey on work after COVID-19, which they also released as an Infographic (2020). APEC is an inter-governmental forum for member economies in the Pacific Rim that promotes free trade throughout the Asia-Pacific region. APEC also identified technology as a key factor in the future of work—the fetish of technological solutions for social and economic problems is very much at the fore in future of work narratives. But in their forecast, there is a clear sense of the potential consequences for the vulnerable communities of Asia were this future to be implemented. APEC claim that any speeding-up of automation (which they identify as the fourth industrial revolution) would see certain vulnerable groups disadvantaged: women, youth workers, those with chronic health concerns, and the elderly. Their concern is the long-told historical story of automation leading to joblessness; not a consideration of those promoting an increasingly automotive or artificially intelligent future. As a counter to the perspective from Global North management consultants, APEC's post-Covid future narrative is more expressly cautious. This emerges from its focus on the powerless rather than the powerful. Their narrative reveals the different potentialities of the future after the pandemic and expressly highlights how forecasting springs from specific political positions as well as from data.

More obviously in the territory of the imagineer than the forecaster, the BBC's analysis of the future of working lives aimed to avoid advocating for or opposing any particular form of AI or automotive working future (BBC Visual and Data Journalism Team 2020). Instead, it drew inspiration from the early months of the pandemic to consider how the abandoned workplaces of the UK might, in the near future, be re-inhabited in new ways. The BBC imagines the future through a largely dystopian aesthetics. Using a combination of text, illustration and animation, the BBC's vision of the office of the post-pandemic future is of a space heavily dis-infected by health management protocols. Offices of the future, in this vision of workplaces to come, rely upon body scanners, digital viral monitors and temperature checkers—a technological health cordon—to sanitize office spaces. The article's illustrations make clear that this imagined future also depends upon self-isolation. The article's key human character, Laila, an office worker, is almost exclusively seen alone in the office of the future—she is imagined as the single inhabitant of a largely abandoned cityscape, a lonely biological body in a world of automated technologies.

In several other imaginaries of the future of work created approximately a year into the coronavirus pandemic (spring to summer 2021), there is a similar sense of the potential hollowing out of cities—especially of city centers. Another BBC web article from the summer of 2021 captured the views of a range of corporate workers from the UK's capital: "In the City of London, also known as the Square Mile, the

drop in people commuting to the offices of big firms has hampered shops, cafes and restaurants, which are reliant on workers to stay in business” (Race 2021). This sort of rhetoric, often repeated in similar news stories, gives rise over many narrative moments to images of abandoned cities reminiscent of apocalyptic film and tv. “The Office is Dead” exclaimed one commentator in such a narrative (Dishman 2020). Perhaps undead is nearer the mark as those narratives of city center abandonment interrupted only by the lone hero (like Laila the lonely office worker) coincide with zombie horror films such as *28 Days Later* (2002) and *I Am Legend* (2007) or the HBO series *The Last of Us* (2023).

These imaginative renderings of the future of work are opposed, however, by alternative visions that see environmental advantages to reduced commuter travel. When Apple, for example, decided that all workers should be returning to the office in the summer of 2021, some employees responded very negatively. One claimed that the company’s Chief Executive Tim Cook had just cancelled the future: “And what about pollution? What about global warming? Does Tim Cook genuinely care about the environment—or does he merely pretend to do so for PR purposes?” (Jameson 2021). These individual responses were often joined by other voices who suggested future economies and future workplaces are the present-day battleground for an improved environmental future. Despite its references to the energy and confidence of the Victorians, this improved future is evident in the British government’s net-zero carbon plan for growth, ‘Build Back Better’ (HM Treasury 2021), but this was equally visible in the corporate world. The World Economic Forum, to give one corporate example, argued in March 2020 that “we can do much better” (Dixson-Declevé et al. 2020). Seeing COVID-19 as an opportunity for its ‘Great Reset’ agenda, the World Economic Forum, went on to explain, “Rather than simply reacting to disasters, we can use the science to design economies that will mitigate the threats of climate change, biodiversity loss, and pandemics. We must start investing in what matters, by laying the foundation for a green, circular economy that is anchored in nature-based solutions and geared toward the public good.” These visions of a future where environmental protections succeed economic interest view the abandoned workplace very differently. For these imagineers, the empty office is a signifier of having chosen a better climate future—spaces of the undead are transformed into sites of green renewal.

What is perhaps most significant in these different renderings of the future of work, and in particular of the differing perspectives on the empty workplace of the future, is how they draw upon a very common trope in contemporary narratives that explore scenarios of environmental apocalypse. Often, climate apocalypse fictions—the film *The Day After Tomorrow* (2004), Cormac McCarthy’s *The Road* (2006), or, more recently, Jessie Greengrass’s *The High House* (2021)—render the bleakness of environmental collapse through images of deserted cities. Such images instantiate disaster and are rendered to warn against the kinds of human activity that might

further accelerate environmental harm. Yet in visions of the future of work, this trope of the deserted city as a signifier of environmental disaster is inverted to signal a green agenda on working practices that no longer requires commuting into the center of cities. Imagineered or forecast futures of work, then, are already transforming powerful generic tropes for alternative purposes—a clear example of how powerful narratives of a post-Covid future are fundamentally changing perceptions. The implications of this we now consider in our conclusion.

“The Last Thing to Do Is Repeat the Exact Same Thing We Were Doing Before”: Conclusions

From March 2020, the UK’s Office for National Statistics began asking a large sample of people in Britain when they thought life would return to normal; effectively asking when a post-Covid future would start. Before January 2021, most thought in terms of a year, reflecting individual hopes that the pandemic would quickly be brought under control. As the virus mutated, repeated waves of COVID-19 challenged such assumptions. New variants pushed predictions of the shift from COVID-19 as a pandemic to an endemic disease forward in time. Within this context, optimistic predictions by conservative-learning commentators of getting back to normal by the end of 2021 may have offered an emotional lifeline, but they looked increasingly unlikely. In the face of new variants, new predictions started to be made from February 2022 about living with COVID-19 (HM Government 2022; Charumilind 2021), echoing James Manyika’s earlier assessment for the International Monetary Fund in June 2020 that “the world after COVID-19 is unlikely to return to the world that was” (Susskind et al. 2020). The forecasting of a return to normal served to foreclose on the future in opposition to people in Britain and the United States broadly favoring a more progressive future (Lewandowsky et al. 2021). By predicting when the pandemic would end, these forecasters and commentators simultaneously neutered the potential futures of the imagineers and advanced their own agendas for a future they would prefer to inhabit. There was resistance to these efforts to claim the future. This resistance can be seen in the rather blandly unprophetic proclamations of having to live with COVID-19 or in ongoing alternative futures such as those that began to appear in slower, longer-form imaginative productions, such as Sarah Hall’s novel *Burntcoat*, published in October 2021, or Ali Smith’s novel *Companion Piece*, which reached bookshelves in May 2022.

What both connects and complicates the forecasting and imagineering of the future is the central influence of their temporal frame. There are two temporal contexts for each narrative, regardless of type. There is the time of the production of the narrative prediction. There is also the future time period being explored by the narrative. The longer the pandemic continued, the greater was the accumulation of

narratives with different temporal frames. They also came to varying conclusions, often through the accretion of data (for forecasting narratives) and the continual generation of novel experiences under pandemic conditions (for imagineering narratives). Attempting to offer a typology of Covid future narratives becomes an exercise focused on the granular detail of dates and time periods; a form of narrative stratigraphy.

Just as the binary of utopian and dystopian fails to capture the complexities of the post-Covid narratives explored in this chapter, one result of these different temporalities was that there appeared to be no single clear narrative direction of travel toward a homogenous future. This is where the organizing principles of future studies are at their most powerful. By developing the narrative paradigms of forecasting and imagineering, future studies provides a division of narrative that supports further analysis of our corpus. For example, forecasting narratives within the corpus focus on a definite and near future that emerges from the acceleration of trends already underway—be that climate change or automation. Conversely, imagineers looked further ahead to a more distant future. In their visions of a world after the pandemic, they set out possible futures in which the apocalyptic and the hopeful, the global and the personal, shifted and overlapped. As predictions of the future were made with greater confidence, and as there appeared to be more data available about what the future might hold, imagineers increasingly lost ground and control of the near future to forecasters. Many of the increasingly dominant predictions had a clear political or corporatist framing: uncertainty and crisis were being replaced by forecasts that gave the impression of data-driven reliability. Imagineering narratives, on the other hand, enable contemplation of a more distant future (sometimes drawing inspiration from a distant past, as Smith's novel does). These more speculative potential futures pose vital questions about the journeys we might take by inviting a consideration of the choices societies will make in the near future.

What we reveal in this chapter is how different narrative futures exist not just or simply simultaneously, but rather how they work as a palimpsest with considerable and complex over-layering of one upon another, some with extensions into further futures and others returning to the nearest possible future. Narratives could be oppositional to one another, certainly, as were some of those which read automation as either positive or negative, but they were not always or even often to be found in such simple binary patterns. Many did not contradict one other directly, but deviated away from each other, sometimes to return to common points. If the scalar nature of the changes predicted varied—from changes to the office and the nature of work to large-scale environmental and economic change—it is clear from the evidence explored in this chapter that throughout the first two waves of the pandemic, there was a battle over ownership of the post-Covid future and what that meant for the future relations of the human and nonhuman world. Such a reading offers new ways of understanding how reality and knowledge are created in a social way and in the

meeting of society and the more-than-human. Forecasting and imagineering both shape futures from particular ideologies and politics that are themselves shaped by the particular moments of socio-economic crisis that COVID-19 engendered and the resulting pandemic represented. It is in this interrogative territory that critical future studies sits. This interdisciplinary field reminds us that questions of potential futures are always questions of power. In predicting a post-Covid future, the very different social, political, economic, or ideological narratives examined here were all fighting for the virgin territory of the world after the end of the pandemic. Who has purchase on the future, where, and with whom, become key questions in determining the shape of dominant narratives. Future research, drawing on the work within critical future studies, is essential to come to a wider understanding of the role of narrative prediction in enabling different societies to understand their own journey both through COVID-19 and into the future beyond it (or alongside it). This first analysis of one corpus of COVID-19 future narratives is a point of departure, the first map of this critical territory. Further reflection, and in particular of non-Anglo-phone narratives, or of the territories of the Global South, is needed to understand how disease, environment, and the control of the future interweave.

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