

2 Worldmaking in the Time of COVID-19

The Challenge of the Local and the Global

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From Our Location

Early in the first period of lockdown in the UK in March 2020, King's College London put out a call for applications to a "Rapid Response to COVID-19" fund, to bring cutting-edge research to bear on the challenges created by the pandemic. Arts and Humanities research is often more difficult to place and read in relation to this type of impact-informed work, and the majority of successful projects were, unsurprisingly, in the medical and social sciences. Research in, for example, immunology, diagnostics, testing, therapy, new technologies and mental health was well represented. Yet, the daily printed and voiced responses to COVID-19 were calling out for analysis of the ways in which the pandemic was being presented and represented. The awareness of the cultural embedding of the lexicon of the pandemic in the UK and its potential illegibility beyond our borders prompted the question of how comprehensible our pandemic experiences are to each other. A fundamental question started to emerge: how are global responses to the pandemic informed by our local cultural histories? How do we start to relate what was insistently being called an unprecedented experience and how does that change across the globe?

We took the view that we start from what we know, what we think we know, what we have heard, read or been told. In the first instance, the Spanish flu of 1918–1920 (H1N1 virus) provided a ready reference. The plague narratives of Samuel Pepys in his diaries, Daniel Defoe's *A Journal of the Plague Year*, Giovanni Boccaccio's *The Decameron*, Albert Camus's *The Plague* all became prominent in the European lexicon of the pandemic, and in the UK, we were often reminded of Shakespeare's prodigious output during periods of quarantine from the bubonic plague. When the virus entered Europe the recourse to known language grew. Reporting was filled with terms that suggested a threat bearing down: when parts of Italy went into quarantine the narrative became that coronavirus was sweeping across Europe and would invade other countries inevitably, inexorably. It barely needed saying: we were at war, being invaded, fighting an invisible enemy, health workers were the frontline.

This field of expression—with particular attention to the verbs being used to express the progress of the virus—was the beginning of the curiosity about how language was being mobilised to create a common sense of what we were facing. Living the experience in the UK, we were told we had an enemy in our midst that must be hunted down and destroyed, we had to play our part in fighting an enemy that does not discriminate, that is clever, mutates, hides, moves in our midst. A long history of terms came to our aid and erupted anew into our everyday language: invasion; contagion; protection; battling; blitz spirit; Dunkirk spirit. The narrative was imbued with a call to individual social responsibility and to common sense. New terms entered a lay vocabulary, not least the term “to flatten the curve”, and it became our duty to play our role to allow the National Health Service (NHS) properly to respond to the outbreak. When lockdown—another refashioned word—was announced, it came with government guidelines about how to act and so the language of social distancing entered our vocabulary. Glossaries of the language of the pandemic and jargon-busters appeared. A BBC coronavirus translator,¹ for example, explained the difference between self-isolation (“staying inside and avoiding all contact with other people, with the aim of preventing the spread of the disease”) and social distancing (“keeping away from people, with the aim of slowing down the transmission of the disease”). We were learning a new language that was instructing our ways of being in the world.

“Worldmaking in the Time of COVID-19” emerges from a much larger project, “Language Acts and Worldmaking”,² in which we think of language as a “material and historical force, not a transparent vehicle for thought” and we posit that “[l]earning a language means recognizing that the terms, concepts, beliefs and practices that are embedded in it possess a history, and that that history is shaped by encounters with other cultures and languages”.³ Nelson Goodman, writing in 1978, invited reflection on the move from a “unique truth and a world fixed and found to a diversity of right and even conflicting versions of the world in the making” (1978, x). He says that “[w]e can have words without a world but no worlds without words or other symbols” (Goodman 1978, 6):

The many stuffs—matter, energy, waves, phenomena—that worlds are made of are made along with the worlds. But made from what? Not from nothing, after all, but *from other worlds*. Worldmaking as we know it always starts from worlds already on hand: the making is the remaking.

(Goodman 1978, 7; original emphasis)

The work we had undertaken across the research strands of “Language Acts and Worldmaking” prepared the way for engagement with the “Rapid Response to COVID-19” call-out. We had worked collectively and in an

interdisciplinary way for almost four years on understanding processes of worldmaking across time and space and we had engaged with multiple communities to understand how language “empowers us, enabling us to construct our personal, local, transnational and spiritual identities” and “can also constrain us, by carrying unexamined ideological baggage”.⁴ Through these processes, we have brought together research in literary and cultural studies, linguistics, pedagogy and digital humanities, and this cross-disciplinary approach informed how we imagined what our research could contribute to the understanding of the impact of COVID-19.

In “Worldmaking in the Time of COVID-19”, we started from a very simple premise that arose from listening to how experts translate complex science—immunology, virology, epidemiology, for example—into lay language: they often turn their knowledge into stories to be told. We became aware of the acts of translation, comprehension and imagination in which we were being asked to engage in order to understand this new and devastating reality. Our premise was that when we collectively look for solutions to complex problems, we start by telling stories to each other in our communities, stories that, for example, set a crisis in context and relate it to our historical experience. This is also true of the goal of exploring and explaining “the science” of the pandemic; the science which we were constantly told was being followed by governments. Communicating complex science is challenging, because of insufficient comprehension of the ideas and their nuances (Gregory and Miller 1998, 106). In this respect, the goal of communicating “the science” becomes to democratise public access to scientific knowledge in order to foster scientific literacy. Indeed, while other areas of media research have been called into question over time, “the importance of discourses of science popularization has been marked by enduring consensus” (Dornan 1990, 49). Nonetheless, the requirement for this scientific language to be translated into lay terms meant that the gap, and indeed the problem of understanding versus communicating science (Gregory and Miller 1998), was consistent throughout the pandemic.

In an already volatile geopolitical global context, we wanted to find out as objectively as possible about the lived experiences of a pandemic that constantly belies slogans that tell us that “we’re all in it together”. This call to togetherness was a global narrative, from the United Nations’ call for “COVID-19 and human rights: We are all in this together”⁵ to the Petrobras slogan that they are all in this together in proposing “initiatives to mobilize resources and assist Brazil in the fight against COVID-19”.⁶ The message “we’re all in this together” appeared to be universal, and it often sounded convincing or even comforting but what did people’s experience tell us? How do we break out of locally bound imaginations to reach out to other realities? From our location in the UK, it was important to us to reinforce the fact that the world is not monolingual and monocultural, that much of the knowledge we need to fight the pandemic globally is hidden away from us in

other cultures and knowledge systems if our focus is purely local and monolingual. The failures of the cultural, historical and political imagination—in counter-position to the dynamic responsiveness in everyday language that articulates the experience of living a pandemic—that haunt responses to the pandemic so often seemed to come from the inability to move beyond the specific location from which the responses arise.

Methodology

To investigate the multiple narrations of the pandemic, we gathered 19 researchers, most of them students, across 12 languages to study the languages of COVID-19.⁷ We gathered evidence about how the pandemic has been narrated across Arabic, English, French, German, Hebrew, Italian, Korean, Japanese, Mandarin and Cantonese, Portuguese, Russian and Spanish. Linguists working in these languages used digital tools to compare and analyse the ways in which COVID-19/coronavirus has been narrated in local settings, with particular emphasis on how the terms coronavirus and COVID-19 lead us into medical and social understandings of the pandemic.

On 31 December 2019 the Wuhan Municipal Health Commission, China, reported a cluster of cases of pneumonia in Wuhan, Hubei Province. Since then, the media have followed every step of this journey. From the time the virus was first identified (COVID-19, 31 December 2019) to the time the disease was named (SARS-CoV-2, 11 February 2020), specific codified terms played a central role in how the pandemic has been narrated. News media offer access to pertinent and comprehensive information illustrating different aspects of the crisis through their specific linguistic lens. As mediators of information and opinion, they are also exposing possible discoveries or state actions that may change society, and in this respect “Worldmaking in the Time of COVID-19” sought to examine how language was being used to articulate narratives and shape discourses around the COVID-19 pandemic in the newsroom. As agents of worldmaking, news media have a specific role to play in the formation of theoretical collectives (Neumann and Zierold 2010), and the dissemination of news and opinions. The current pandemic is an interesting case study: it is global, politicised and almost omnipresent. From fake news to the strain on the political and administrative authorities, it has affected a wide range of news items well beyond its scientific knowledge.

In practice, the project “Worldmaking in the Time of COVID-19” attempted to comprehend the virus’s cultural and geopolitical significance by comparing and analysing the narrative in over 110 countries. In total, we looked at over 1.1 million news articles from 117 countries in 12 different languages. The data was collected by downloading en masse articles with the terms *coronavirus* and *COVID-19* in the header and the lead section. Because of the magnitude of the task of covering the pandemic across the

globe and in multiple languages, identifying and mining appropriate news articles was a fundamental challenge. Researchers used a variety of sampling methods to determine how many texts are required for quantitative content analysis studies that span months or years. This is one of the most complex challenges in communication science (Luke, Caburnay and Cohen 2011), owing to the fact that journalistic formats and styles often differ depending on the day of the week. (On Mondays, for example, the *London Times* includes “The Game”, which summarises the weekend’s football activity.) In this respect, constructed week sampling is more efficient than simple random sampling or consecutive day sampling. The sample dates in a constructed week sampling method are stratified by the day of the week and randomised (Lacy et al. 2001; Stempel 1952). We put together nine randomised weeks to give a comprehensive view of the pandemic’s coverage.

To generate these nine “constructed weeks”, we randomly selected nine Mondays, nine Tuesdays, nine Wednesdays, and so on from the designated period, until we had nine representations for each day of the week. A total of 62 days was recorded between January and April 2020. These dates enabled our researchers to rely on a small sample size while still obtaining valid results on the pandemic’s global news coverage. Using this strategy, we were able to look at one day per week, making up nine full weeks across all languages studied. We gathered the data using LexisNexis and Press Reader (for Korean, Japanese and Hebrew). LexisNexis is a textual analysis electronic database that monitors the news and media and provides instant access to news sources across languages and countries. Press Reader is a digital newspaper distribution platform that primarily provided access to languages not covered by LexisNexis. Following the collection of data via these platforms, the researchers used Voyant as an entry point for content analysis. Voyant is a web-based text-analysis tool that allows users to look at large corpora by conducting a distant reading of collected data.

We looked at the coverage of the pandemic from 1 January to 30 April 2020. Although we have observed smaller waves within the pandemic’s dominant waves, we researched the pandemic’s first wave as it is widely considered and discovered that the language has changed across waves. The term “wave” is frequently used by the World Health Organisation and other international health organisations to describe pandemics. Even though the concept of pandemic waves is not new (the 1918 influenza epidemic, according to the Centers for Disease Control and Prevention (CDC), was divided into three waves), there is currently no official definition. According to the Office for National Statistics (ONS), a wave of an epidemic is a period of increased disease transmission.

Following this logic, we perceived waves as a period of increased narrative media coverage, such as the obvious trend of using terms relating to

China in the early months of the pandemic, which had social implications. The World Health Organisation (WHO) has warned that certain disease names have the potential to stigmatise communities and harm economies. According to Dr Keiji Fukuda, then Assistant Director-General for Health Security, WHO:

We've seen certain disease names provoke a backlash against members of particular religious or ethnic communities, create unjustified barriers to travel, commerce and trade, and trigger needless slaughtering of food animals. This can have serious consequences for people's lives and livelihoods.⁸

When the news started portraying the virus as a Chinese disease, as an us-versus-them narrative, several problematic narratives began to (re)emerge. For example, on 16 March 2020, former President Donald Trump called on the United States to assist industries “particularly affected by the Chinese Virus”. This was the first time he referred to the “Chinese virus”, the reference allegedly instigating hate crimes against Asians, according to newspaper reports⁹ (Hswen et al. 2021). In the initial stages of the pandemic, when cases were mostly linked to China, the term “Chinese virus” was frequently used. These types of naming, which later diminished, contributed to the rise of racism. This is one example of the ways in which the terms COVID-19 or Coronavirus as search tools draw us towards wider usage and connect us with a broader range of experience. The investigation of these instances is ongoing, but as a first step after collating the data, we made four podcasts based on key themes that arose during the data mining: “Moving Geographies”; “Coronavirus vs. COVID-19”; “Propaganda and Combat Narratives”; and “Future and Morality in the Global Narrative of COVID-19”.¹⁰

In “Moving Geographies” researchers explored how, in the months studied, we see shifts from the global to the local. The title is informed by the sense of the virus closing in as it moved westward from China. Over the period of study, a narrative that linked the virus exclusively to China diminished, and the concern for local impact—for example, on health services, the economy, the state of the nation—grew. In Italy, which became an object of horrified observation as it was hit with an early European outbreak, the sense of uncontrolled travelling—*il virus viaggia all'estero* (the virus travels abroad)—was marked. The virus did not attach to verbs of “being in”, that is, emerging from within the borders of the state, but to those of “arriving in”/“arriving from”. The virus was always in transit and so was the language. One key finding was that the pandemic redefined our interactions with space, the environment and one another. Reports on the mental effects of lockdown appeared in a number of languages; in Argentina and Chile the words *sospechoso* (suspect), *aislado* (isolated),

abandonar (to abandon) and *temor* (fear) were prevalent. In English, there was a gradual move from seeking to understand the virus to mitigating its impact. In Turkey, a narrative that the virus was not dangerous sat alongside the reporting of the impact on tourism, while the stories of cancellations of events told of the varying levels of the local impact of the crisis. Gradually “pandemic” took over from “epidemic”. The podcast “Moving Geographies” introduced us to a sense of language in flux in the attempts to comprehend localised, individual impact while grappling for real global knowledge, and illustrated the importance of the tension between the inside and the outside of countries, the importance of borders and, as the virus crossed borders indiscriminately, how language articulated our localised reactions to its movement.

When reflecting on the different uses of “coronavirus” and “COVID-19”, it is interesting to note how the terms fluctuate. In France, the coronavirus was often referred to as a crisis in China, and language became more scientific with the use of COVID-19. In January 2020, words like *Chin-* (China, Chinese, etc.) and Wuhan appeared regularly across all regions. All six European languages (English, French, German, Italian, Portuguese and Spanish) presented China, Wuhan and Hubei as keywords (see Figures 2.1, 2.2 and 2.3).



Figure 2.1 Word cloud of keywords for Italian (22 January 2020).¹¹

There was a generalised sense that the virus was happening *there*, not here. According to our researchers in French, commenting on the results from 27 January and 3 February:

To begin with, the results show a marked difference in the language used to narrate the crisis before and after it became a European phenomenon as opposed to a Chinese/Asian one. This is reflected in the primacy of the referent, “coronavirus” in the early stages of the crisis in China, and the more scientific referent, “COVID-19”, that grows in frequency in conjunction with the shift of the key places referred to from Asia to Europe (around late February to early March). Furthermore, the predominance of Chinese/Asian place names and the term “coronavirus” correlates to more emotive and evaluative keywords such as: *bioéthique*, *bienveillance*, *anxieuse* (bioethics, benevolence, anxious; results from Jan 27 and Feb 3). The predominance of European place names, on the other hand, correlates to more practical and/or concrete key words that fall into three categories: economic (*économique*, *pétrole*, *activités*, *avion*, *agriculture* [economic, petrol, activities, plane, agriculture]), medical/epidemiological (*santé*, *transmission*, *décès* [health, transmission, death]), and sociopolitical (*gouvernement*, *autorités*, *mesures*, *confinement*, *masques* [government, authorities, measures, lockdown/isolation, masks]).¹²

In February 2020, although China was still very much a keyword, the discourse started to change. On 5 February, in Europe, the frequency of the word *China* rose to 224, whereas the frequency of *Wuhan* dropped to 54. This suggests that the virus was now being perceived as a more global risk, rather than contained in one region. This is highlighted also in the corpus collocate graph, looking at the frequency of two words appearing together, in which there is no proximity between *coronavirus* and *China*. By the end of February, the virus was starting to be described as a local and national issue. It lost its one-directional connection to China. The narrative moved more towards Europe and Germany, with locations such as Frankfurt, Garmersheim, Rheinland and France occurring frequently. As the narrative shifted towards national concerns, in German the discourse turned towards economics, businesses and sport. As the numbers started to rise in Spain, it was also no longer referred to as *el coronavirus de Wuhan*, but as *la enfermedad del coronavirus 2019* (the sickness of coronavirus 2019); it had lost the sense of belonging to China. The results showed a discernible difference in the language used to narrate the crisis before and after it became a European phenomenon rather than a Chinese/Asian one. In one visualisation of the relative frequency of the word *China*, it dropped dramatically—to almost zero—when the virus “arrives in” Spain.

Korean gives us some fantastically specific neologisms to describe the experience of living with social distancing and home isolation: **집콕족** [jip-kok-jok]: people who want to avoid contact with others and stay indoors to avoid infectious diseases; **확찐자** [whack-jin-ja]: a person who decreased activity and stayed indoors due to the fear of COVID-19 infection, and consequently put on a lot of weight; **방구석 1열 공연** [bang-ku-suck il-yeul gong-yeon]: room corner 1-low singing live performances, that is, a person who does not go to see a live stage performance directly, but who is exposed to it through media such as TV, internet, or smartphone, and who responds to the performance; **혼산족과** [hon-san-jok], or **둘산족** [dul-san-jok]: person(s) going out hiking alone or in a pair, respectively. And it also borrows from the English; **코로나 블루** [corona blue]: the corona blues; **홈테인먼트** [hometainment]: home entertainment (a phonetic transcription and hybridisation of the English word); **뉴 노멀** [new normal] (a phonetic transcription of the English term).

When thinking about the podcast “Propaganda and Combat Narratives” we tested our initial perception that the lexicon of war informed many of the responses to the pandemic. At a macro level, in Europe, news outlets used the language of conflict extensively to talk about the pandemic. In Britain, healthcare professionals were “at the frontline”. In Italy, Prime Minister Giuseppe Conte suggested Italy was in its “darkest hour”, while in France, President Emmanuel Macron proclaimed that he would put his country on a “war footing”. In German there was some use of military language in relation to coronavirus: *rüsten* (to arm), Germans were involved *im Kampf gegen* (in battle against). However, perhaps for historical reasons, war metaphors in relation to the pandemic were avoided in Germany, seeming to reflect the lack of war rhetoric in the narrative presented by Angela Merkel’s leadership. The Chancellor was not inclined towards combat imagery to address the pandemic, but was, rather, simple and straightforward. In French, the language showed evidence of frequent comparisons between the pandemic and war, the term *guerre* (war) appearing as a keyword on multiple occasions: *guerre contre l’ennemi invisible* (war against the invisible enemy), *situation de guerre* (state of war), *la guerre mondiale* (the world war).

The reality of the management of the pandemic involved enforcement, and in Russian there was a high occurrence of war rhetoric: *война* [voïna] (war), *войско* [voïsko] (army) and *солдаты* [soldaty] (soldiers) being some of the most common words throughout the period analysed. The *Росгвардия* [ros-gvardiya] (Russian National Guard) was mentioned every day, reaching a peak of 72 times in one day. These mentions referred to two different contexts: rule enforcement, including curfew, domestic isolation, travel ban and border control, within the idea of “preparing and fighting a war” against the virus; and postponement of the Moscow Victory Day Parades on 9 May, most importantly in Moscow’s Red Square, to commemorate the surrender of Nazi Germany and the end of WWII. Early on in the research, for example, it was obvious that the historical reach of the discourse of

the Cold War weighed heavily on the “race” for a vaccine, especially in Russian, where it was likened to the space race, and it is no surprise, perhaps, that their vaccine was called “Sputnik”. The sense of the enemy within appeared in different areas, as did interesting alliances.

In Israel, מתנדבים (volunteers) were referred to as גיבורים (heroes) and שוברי חוק (rule-breakers) as נבלים (villains). In March, coronavirus was seen as an enemy, so Israel’s Intelligence Services joined the “fight”. The Home Front Command prepared to enter the מלחמה נגד קורונה (war against corona). The health emergency led the Public Service to work under emergency state conditions, including cellular surveillance to trace contacts. The Israeli prime minister gave a speech in which he recognised the importance of cooperation amongst countries, for example, how much information had been gained from the collaboration between Israel and South Korea. In South Korea, while there is no evidence of significant use of combat imagery, it is worth noting, however, that in March 2020 China was being identified as an *악의 축* [axis of evil].

In the podcast “Future and Morality” we were concerned with how lockdown prompted reflection on “the new normal” and on how the future would look after this prolonged period of global crisis. Different countries were reflecting on the impact on public health, education, the impact of working from home, lifestyle changes and on questions of social equality, including gender. In Italian, early on, a prevalence of future tense indicated a forward-looking gaze towards resolution at a time of continuing instability. And then, in April, past tenses became prevalent, an introspective and analytical gaze that did not anticipate a new and different future. In German, and with the opening of the creative spheres from March onwards, there was a sense of reflection and critique of lived experience. Emphasis on the economic impact of the pandemic was matched across languages by reflection on the societal impact, especially in terms of the realisation of the global and persistent nature of the pandemic. Questions of the tensions between dealing with local and immigrant populations intensified, with travel bans and closed borders. For example, in Central America there were reports about how the pandemic increased discrimination against specific groups, such as immigrants and prisoners. And there was a serious questioning of what “normality” actually is, and how a return to “normality” was in fact a continuation of poverty, lack of access to resources, medicine, education and justice, especially in terms of domestic abuse and violence. Discourses began to anticipate what has become a transparent impact of the pandemic in terms of global inequalities and of what Toby Green, in his study of the impact on the global south, calls “collateral damage” (2021, 213).

Equally important is the individual impact of the public narratives that emerged from one country to another about, for example, levels of responsibility or of effective management of the pandemic through public policy (for example, in Mandarin, the term “policy” started to be used extensively in

April to refer to the various stimulus policies introduced by the government to help different industries).

The Language of Emotions

A sentiment analysis of official pronouncements across a selection of the languages we have studied offers an insight into how discourses around public health reveal the complex interplay between the local and the global, with the concept of the global response being challenged by the realities of the specific experiences of COVID-19. A recent trend in text analysis, sentiment analysis attempts to identify the emotion behind a text; it is a data-mining–based knowledge-discovery technique that aims to reveal emotions on specific topics. For example, the presence of “anger” in *et les Chinois ne cachent plus leur colère* (“and the Chinese people can no longer hide their anger”) would result in a “negative” on a negative-positive sentiment scale. As well as dictionaries or lists of words associated with specific emotions, sentiment analysis integrates natural language processing (NLP) and machine learning algorithms to provide weighted sentiment scores to words and sentences. As a result, this is an excellent technique for working with unstructured data sources, such as official pronouncements. Despite some limitations, sentiment analysis allows us to investigate fundamental questions about the COVID-19 pandemic’s official statements by identifying and extracting subjective information from the source material. Using the data we have gathered, sentiment analysis offered insights into the nature of state response and intervention. Here we will look briefly at some examples from British Prime Minister Boris Johnson, Brazilian President Jair Bolsonaro and US President Donald Trump.

Johnson, Trump and Bolsonaro all downplayed the effects of coronavirus before becoming infected, meaning that, at different stages, three of the world’s most powerful COVID-19 denialists contracted the coronavirus. When it comes to the pandemic’s early trajectory, the three countries they led shared several characteristics, such as high infection rates and large numbers of deaths. They also shared similar discourses: Johnson made light of shaking hands with people in early March, Bolsonaro called the virus the “little flu”, Trump called it “the Chinese virus” and both Bolsonaro and Trump endorsed the use of hydroxychloroquine. According to our preliminary research, these three governments’ early reactions to the COVID-19 messaging were a mix of confusion and dismissal, and their narrative suggested that they were aiming to change how the pandemic and its actors were framed. For example, despite not being as prevalent in the United States as it was in Europe, the war narrative was frequently found in the context of politicians’ speeches in Spanish (in the United States) where Trump also pronounced himself a “war time president”. Yet, despite this war narrative and the increasing number of deaths, their narrative was mostly positive throughout the pandemic’s first year (from March 2020 to January 2021).

Boris Johnson addressed the nation 42 times between March 2020 and January 2021; 31 of those speeches were judged to have a positive sentiment. This equates to nearly 74% of the time. His most positive speech was on 28 May, just a few days before schools reopened. He claimed in that

at the start of the outbreak, there was significant concern that the NHS would not be able to cope. That turned out not to be the case, thanks to the heroic efforts of everyone who works in the NHS. And the heroic efforts of the British people to contain this virus.

This sentence contains one negative word (*outbreak*), three positive expressions, *heroic efforts* (used twice) and *British people* and is a good example of his overly positive narrative. That is, he claims that the NHS was able to cope with the pandemic, whereas the British Medical Association (BMA) shows that enormous strains were placed on an already overburdened healthcare system.¹³ While ignoring the NHS's already stretched resources, he presents a positive narrative in which everything seems to be fine.

Jair Bolsonaro officially addressed the nation ten times between March 2020 and January 2021, preferring YouTube Live events. Nine of the speeches were deemed to have a positive tone. On Christmas Eve 2020 he delivered his most positive speech. Nonetheless, one interesting finding pointed to a self-centred positive narrative when he suggested that families, businesses and workers “had to change their routines and way of life”, while he and other world leaders were praised for their “responsibility, courage and effort”.

Between March 2020 and January 2021, Donald Trump officially addressed the nation 71 times, all of which were positive. On 8 December 2020, just prior to the Food and Drug Administration's (FDA) approval of the first COVID-19 vaccine on 10 December, Trump delivered his most positive speech, thanking several people and praising the general effort that led to the vaccine's production and distribution. As an example of his positive and nationalist narrative, he said: “In just a few minutes, I'll sign an executive order to ensure that the United States government prioritizes getting the vaccine out to American citizens before sending it to other nations”. In a characteristically patriotic statement, he later claimed that the United States is “the most exceptional nation in the history of the world”.

These are leaders who frame meanings in an overly positive manner. David Collinson (2012) has called this “Prozac leadership”. He claims that a specific attitude to leadership is at the root of the crisis in many Western countries, in which critical thinking has been replaced by positive thinking and risk-taking. Johnson, Bolsonaro and Trump are the quintessential Prozac leaders, given that their own rhetoric underplayed the negatives. All in all, Trump had the most positive rhetoric of the three leaders, up to ten

times that of Johnson. Although Johnson had the greatest disparity between his most negative and positive speeches, Trump was the most loquacious leader, having nearly 60% more official statements than Johnson. Our research also suggests that Johnson's other sentiments included fear and anticipation in equal measure, further exemplifying their confusing message. In general, their discourse was also localised, with a strong patriotic narrative. For example, Trump's highest keyword was *we're* and Johnson and Trump both talked frequently about the people, while Bolsonaro talked about Brazil. There is work to be done in other languages, but this short insight into sentiment analysis shows one direction this research might take in tracing pathways from the discourse of world leaders to the impact on political action and its impact on individual lives.

Conclusion

The current pandemic has influenced our views on social, economic, political issues and on science. Throughout the pandemic, experts had to translate complex science into lay language, science journalism being a newsbeat that has traditionally served as a forum for creating meaning and providing scientific and technical knowledge that contributes to the debate and criticism of the information disseminated and made available to the public. At its core, science journalism is primarily concerned with translation: translation from one language to another; translation of otherwise jargon-heavy language into digestible bite-size information for the lay public, allowing people to make informed decisions. Thus, in answering the COVID-19 question, understanding the language in the news was a key resource for understanding the world around us and especially in the perception of risk and the communication of health threats. As the authors of the concept of a social construction of reality, Peter Berger and Thomas Luckmann (1966) see language as a source of socially shared universes of meaning that emerge from the communication process. As a continuation of this idea, Paul Gross and Norman Levitt (1994) propose that scientists, rather than using infallible methods to reveal facts of nature, are instead constructing explanatory stories designed to reinforce both the scientists' social and cultural mores and their preconceptions and expectations of the natural world—a world that contributes to only a subset of the scientists' social and cultural mores.

The COVID-19 pandemic has affected a wide range of news items far beyond scientific knowledge, from fake news to the top-down narrative in which we received the majority of our information directly from political and administrative authorities. In the words of one of our researchers:

Reporting on COVID-19 has not changed the way global news is narrated in the Spanish-speaking world. Countries give prevalence to

local news and, when international, they give prevalence to European or American (USA) news. China still hangs around but is no longer a focus. Other Asian countries, Middle Eastern countries or African countries are hardly mentioned. This is a conclusion driven from an earlier question: will this global disease change the way we narrate global news?¹⁴

The COVID-19 pandemic is not the first global pandemic to be reported in the media, and it is unlikely to be the last. It is just the current “peg”. Epidemics and pandemics will always be of interest to journalists because they satisfy several news values (Galtung and Ruge 1965), including proximity, impact and consequence, and, most importantly, human interest. According to Pereira, Serra and Peiriço (2003), the purpose of science communication is to expose potential discoveries that may change society and the way it operates. As a result, it could be argued that as the pandemic changes society, so does the way we communicate about it.

Looking back on the project “Worldmaking in the Time of COVID-19” feels both historic and prescient. There is jolt to the memory in recalling the terms that we started to become so familiar with, and a sort of melancholy in knowing that the “new normal” and the different future imagined in some lockdowns are not in the process of emerging. Instead, the fault-lines that we see being articulated in the early months—which, across the world, signal endemic inequality, huge geopolitical divides in access to resources and the different levels of control, of loss of civil liberties, of the growing power of a particular state—are being played out in late 2021. Our podcasts bring to life a real sense of navigating the unprecedented and of the search for ways to name the experience through looking for shared perspectives and through invention in naming the local. In this way, we hear a history of the early pandemic, which brings us into direct contact with a making of our complex world from known cultural-historic worlds. What was striking throughout this experience was a growing sense that, despite some fantastically inventive language to describe the specific reactions to the experience of, for example, lockdown/quarantine and the measures taken at local levels,¹⁵ the responses to this present-day “plague” emerge almost unchanged from historic worlds of “anti-plague measures”, which provide discursive and political systems to deal with global pandemics, as Frank M. Snowden suggests:

When new, virulent, and poorly understood epidemic diseases emerged, such as cholera and HIV/AIDS, the first reaction was to turn to the same defences that appeared to have worked so well against plague. ... In this manner, the plague regulations established a style of public health that remained a permanent temptation, partly because they were thought to have worked in the past and because, in a time

of uncertainty and fear they provided the reassuring sense of being able to do something. In addition, they conferred upon the authorities the legitimating appearance of acting resolutely, knowledgeably, and in accord with precedent.

(Snowden 2019, 81)

This sense of a long, increasingly entrenched, history of action, of a type of cyclical worldmaking, is borne out so far in the discourses we have been studying from the first wave. What we see is the importance of the “vast extension of state power” (Snowden 2019, 82), of measures to contain the populace, of the lexicon of the local versus the global, insiders and outsiders, the known and the alien, of the question of how the actions of other states affect our state. As we end 2021, the lexicon has evolved to be dominated by references to vaccination, to arguments about compulsion, in terms, for example, of COVID passes and mask-wearing, to the “pingdemic” in the UK (the large-scale phone notification of COVID contact) and to new variants. Our methods of study in our first foray into the language of the early pandemic suggest that we have a lot to learn from insistence on this type of research in understanding the real-life impact of the language created to construct the ways we make and live in our worlds in times of crisis.

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Notes

- 1 <https://www.bbc.co.uk/news/health-52182658>
- 2 <https://languageacts.org/>
- 3 <https://languageacts.org/what-we-do/>
- 4 <https://languageacts.org/what-we-do/>
- 5 <https://www.un.org/en/un-coronavirus-communications-team/we-are-all-together-human-rights-and-covid-19-response-and>
- 6 <https://nossaenergia.petrobras.com.br/pt/sustentabilidade/estamos-juntos-no-combate-ao-novo-coronavirus/>
- 7 Our researchers are: Iman Taleb and Judy Alsoufi (Arabic); Esther Kentish and Lindsay Warner (English); Benjamin Oldfield and Delphine Gatehouse (French); Joseph Prestwich and Iman Taleb (German); Eitan Oren (Hebrew); Anita Baratti (Italian); Hyun Kyung Lee (Korean); Eitan Oren (Japanese); Wing In Choy and Maria Jane Marimon (Mandarin and Cantonese); Tatiana Wells and Aleida Cristina Mendes Borges (Portuguese); Pola Awdankiewicz-Baeta (Russian); Holly Henry, Natalia Stengel Peña and Juan Albornoz (Spanish).
- 8 <https://www.who.int/news/item/08-05-2015-who-issues-best-practices-for-naming-new-human-infectious-diseases>
- 9 <https://www.nytimes.com/2020/03/23/us/chinese-coronavirus-racist-attacks.html>

- <https://www.nytimes.com/2020/04/12/magazine/asian-american-discrimination-coronavirus.html>
- 10 <https://languageacts.org/news/worldmaking-in-the-time-of-covid-19-podcasts-launched/>
- 11 The Voyant tools have recently migrated, and some corpora are still being transferred from one server to another. As a result, the English, Portuguese and Spanish word clouds cannot be published at this time.
- 12 Unattributed quotations relating to the project are from the language reports submitted by researchers. In French, these are Benjamin Oldfield and Delphine Gatehouse.
- 13 <https://www.bma.org.uk/advice-and-support/nhs-delivery-and-workforce/pressures/pressure-points-in-the-nhs>
- 14 Unattributed quotations relating to the project are from the language reports submitted by researchers.
- 15 Thank you to our many interlocutors who sent examples from across the world. Especially to Professor Tony Thorne, who provided us with some invaluable information.

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