Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis
by Laura Robinson

Abstract
For many Brazilians and Americans, the year 2020 was marked by unprecedented environmental catastrophes alongside the COVID-19 pandemic. In Brazil and the United States, the impact of these existential threats was particularly acute in the third quarter of the year with both countries experiencing record-breaking environmental disasters and high mortality rates from the virus. The research examines a media flashpoint on the eve of the 2020 U.S. presidential election: a transnational discussion between Brazilians and Americans hosted by three flagship papers in Brazil and the U.S.: O Estado de S. Paolo, Folha de S. Paulo, and the New York Times. Engaging with one another across the three digital discourse fora, Brazilian and American contributors discussed the double onslaught of the pandemic and climate change. For them, the simultaneous threats of extreme climate events and viral contamination amplified each other, generating a traumatic sense of meta-crisis. This sense of meta-crisis stemmed from a collective acknowledgment of the breakdown of key facets of governance and civil society in both Brazil and the United States. The perception of this multifaceted dysfunction gave rise to deeply seated cultural trauma among Brazilians and Americans. In making these connections, this article puts theories of cultural trauma into dialogue with emergent scholarship on the COVID-19 pandemic and climate change from a cross-national perspective.

Contents
Canaries in the coal mine
2020: COVID-19 and climate change
Landscapes of public opinion
2020: Climate change, COVID-19, and cultural trauma
The digital public sphere
Data
Methods
Findings
The climate-COVID connection
Climate science in crisis
Crisis in the media
Crisis and contagion across the Americas
Synthesis
Discussion: Cultural trauma in the risk society
Future study
Canaries in the climate coal mine

Since the election of Jair Bolsonaro in Brazil in 2018 and Donald J. Trump in the U.S. in 2016, both countries have witnessed a dramatic historical period animated by populist politics and sharply widening ideological divides. In 2020, the COVID-19 global pandemic and a series of spectacular climate change events struck both countries already living in supercharged political environments. This research examines how these phenomena converged in a uniquely revealing data point on the eve of the 2020 U.S. presidential election: a transnational digital discussion between Brazilians and Americans hosted by three flagship newspapers in Brazil and the United States: O Estado de S. Paolo (Estadão), A Folha de S. Paulo (Folha), and the New York Times (NYT).

On 15 July 2020 the New York Times ran an opinion vlog by Brazilian YouTuber and TikToker Felipe Neto and launched an open forum for discussion. Alongside links to the NYT, news coverage, and multi-lingual transcripts, parallel digital spaces were simultaneously opened by Brazil’s leading newspapers Estadão and Folha. In response, Brazilians and Americans flooded all three discussion spaces to vigorously debate Neto’s claim: “Americans like to boast about being the world leader at everything but I’m certain that our leader, Jair Bolsonaro, is the worst COVID president in the world.”

Their jointly produced commentary provided a rare opportunity to map out parallel interpretations of the social world co-constructed in real time by Brazilian and American participants in the digital commons during the COVID-19 pandemic. Analysis of this singular data set reveals that Brazilian and American contributors forged associations between COVID-19 and environmental disaster as a meta-crisis. In their eyes, the COVID-19 pandemic amplified the sense of imminent existential threat already posed by environmental destabilization. Thus, the twin confluent existential crises of climate change and COVID-19, alongside associated crises, precipitated a meta-crisis generating multidimensional cultural trauma.

2020: COVID-19 and climate change

In 2020, nationals of the largest countries in South America and North America experienced the dual shock of COVID-19 and extreme climate events across their enormous landmasses that house varied climates and abundant environmental resources. With well over 200 million and 300 million inhabitants respectively, Brazil and the United States both boast significant culture industries with global impact. As members of the world’s most powerful G20 economies, Brazil and the United States are economic engines of their respective continents, as well as global leaders in a range of cutting-edge technologies from green tech to ethanol to open source software (Schoonmaker, 2009). For all of these reasons, cross-national comparison of these key case studies provides fruitful insight of processes of cultural trauma across the Americas.

In 2020, both Brazilians and Americans experienced existential threats of an unprecedented scale both from extreme climate events and the COVID-19 pandemic. During the third quarter of 2020, the U.S. and Brazil led the world with six and four million total COVID-19 cases, as well as over 180,000 and 120,000 deaths respectively (Johns Hopkins University, 2020) with globally recognized hotspots such as Manaus and New York. Also in 2020, for months swaths of each nation burned from a series of fires extending across several Brazilian and American states. As the pandemic struck taking lives, the wildfires simultaneously threatened some of the most important natural mechanisms that stabilize the world’s climate. The climate crisis was particularly grave in Brazil with fires threatening some of the richest biospheres on the planet containing a disproportionate share of the world’s biodiversity.

In 2020, Brazil’s triple crown of environmental treasures was enflamed: the Amazon, Atlantic Forest, and Pantanal. At the time of data collection in July 2020, record-setting fires had consumed the Amazon for
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis

months from 2019 onwards. These fires in the Amazon represented a significant threat to “the lungs of the planet” and the important role this rainforest plays in absorbing carbon dioxide for the entire globe. However, Brazil also is home to the Atlantic Forest and extraordinary Pantanal wetlands, both of which were also experiencing unprecedented fires that same year. As the COVID-19 pandemic took lives, fires burned across the Atlantic Forest that extends from northeastern to southern Brazil into Argentina and Paraguay. These fires threatened the Atlantic Forest’s important role in climate stabilization, as well as its biodiversity that rivals the Amazon with 60 percent of all Brazilian threatened animal species, five percent of the Earth’s vertebrates, and eight percent of the Earth’s plant life (Nature Conservancy, 2021a). As parts of the Amazon and Atlantic rain forests were turning to ashes, almost one quarter of the Brazilian Pantanal wetlands also became an “inferno” despite being the world’s largest freshwater wetland (Einhorn, et al., 2020). Arguably as important as the Amazon and Atlantic rain forests, the Pantanal is a vast freshwater wetland located primarily in Brazil on the border of Bolivia and Paraguay in the Paraguay River basin. This rich flooded grassland savanna stores carbon and helps maintain climate stabilization (Nature Conservancy, 2021b).

At the time of data collection, these environmental resources were under attack as Brazilians faced the dual existential threat of climate change and COVID-19. As Brazilians suffered from COVID-19, they also struggled to breathe in the midst of overwhelming environmental disaster. News coverage showed beleaguered fire fighters battling blazes with bare faces and insufficient equipment — their plight mirroring healthcare workers battling COVID-19 without sufficient personal protective equipment (PPE).

Concurrently, uncontrolled wildfires were sweeping across the western U.S. and incinerating vast territories. In the North American summer of 2020, Americans combatted the dual onslaught of deadly heat fueled by climate change and the mounting death toll of COVID-19. For months, record-setting fires burned from California to Colorado, devastating millions of acres of established forests that provide important environmental benefit alongside the vast forest canopies of the southeastern United States that had also experienced deforestation and other environmental threats. At the same time, across the western United States, stay-at-home orders due to the pandemic were mirrored by stay-at-home orders to avoid smoke inhalation and the noxious threats posed by the toxins being emitted by the out-of-control fires for months. News coverage enjoined Californians, Oregonians, and Coloradans under fire warnings to wear two masks: one for COVID and the other for smoke inhalation.

Landscapes of public opinion

Despite the parallels between these existential crises that faced both Brazil and the U.S., each country continues to have different landscapes of public opinion. These differences strengthen the appeal of a cross-national comparison between Brazil and the United States where the two countries serve as foils for one another. The first important cross-national divergence concerns the perception of climate change. Even before the fires of 2020, almost three-fourths (72 percent) of Brazilians considered climate change to be a “major” threat compared to 59 percent of Americans (Fagen and Huang, 2019). According to Funk, et al. (2020), at least half of Brazilians agreed that: 1) climate change is “affecting where they live a great deal or some of the time” (74 percent), 2) “climate change is a very serious problem” (54 percent) and 3) “national government is doing too little to reduce the effects of climate change” (50 percent). By contrast, only 59 percent and 53 percent of Americans agreed that climate change is “affecting where they live a great deal or some of the time” and “climate change is a very serious problem.” However, 63 percent of Americans surveyed concurred that “national government is doing too little to reduce the effects of climate change.”

While at least half of both Brazilians and Americans would have preferred for their national government to do more to combat climate change, far fewer Brazilians than Americans expressed strong confidence in their political systems’ ability to effect meaningful change. Only eight percent of Brazilians expressed satisfaction with how democracy is working in their country, compared to 58 percent of Americans (Kent,
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis

According to the Pew Research Center (2020a), on the eve of the pandemic, only four percent of Brazilians believed their political system was the “best” or “above average” with another 18 percent rating their political system “average” compared to 74 percent who rated it “below average.” By contrast, 41 percent of Americans believed their political system was the “best/above average” with another 27 percent rating their political system “average” compared to 31 percent who considered it “below average” (Pew Research Center, 2020b). However, the United States may be changing. According to Funk and Kennedy (2020), Americans have experienced growing distrust in government with only six percent of Americans expressing confidence in Congress. In this regard, Americans may have become more similar to their Brazilian counterparts.

Immediately preceding the pandemic, differences between Brazilian and American national self-image were also present in terms of their perceptions of scientific achievements in their respective countries. Whereas Brazilians were more likely to express lower-than-average self-conception vis-à-vis science and scientific training, Americans were more likely to rate themselves quite highly (Pew Research Center, 2020b). Only six percent of Brazilians considered their medical treatments to be the “best” or “above average” compared to 55 percent of Americans. In parallel, only eight percent of Brazilians reported their scientific achievements to be the “best” or “above average” in contrast to 61 percent of Americans. This variation between Brazilian and American self-conception on key issues, coupled with the threats of COVID-19 and climate destabilization, presented fertile ground for the study of trauma narratives grounded in differing landscapes of public opinion.

2020: Climate change, COVID-19, and cultural trauma

These landscapes of public opinion are amenable to the analytical framework of cultural trauma given the omnipresence of traumatic events in 2020. By contrast to personal trauma experienced by individuals that can be analyzed in terms of its emotional effects at the individual level, it is valuable to study traumas which have been suffered by collectivities in terms of the cultural representations and framings which are brought to bear to make sense of the shared trauma (Woodbury, 2019; Alexander, 2016). Thus, the study of cultural trauma is intrinsically a study of cultural work as embodied in frames and narratives. Such frames and narratives often thematize topics such as the identities and characteristics of the traumatized group and the perpetrators of the suffering, consequences of trauma, and the requirements for healing, redemption, and reconstitution (Alexander, 2012). Significantly, empirical studies, while valuable, have trained their gaze on short-term events such as Katrina and Super Storm Sandy (Peek and Sutton, 2003; Trumbo, et al., 2016) that are spatially and temporally bounded. The trauma of the once in 100-year events of 2020 may overshadow the trauma of previous disasters for several reasons: event duration, exponentially larger victim counts, and complexity of the domino effects globally.

By contrast to such sources of cultural trauma that have been located in the historical past, both climate change and COVID-19 are unbounded both spatially and (to date) temporally. For this reason, a major ongoing factor leading to extended cultural trauma is the worldwide disruption of the climate and degradation of the natural environment (Brulle and Norgaard, 2019). The cultural trauma due to this ongoing and accelerating global crisis has outsize impact, inasmuch as it both affects and implicates humanity as a whole, even if it has different manifestations in different countries.

The global and extended nature of the climate change crisis also holds true for COVID-19 (Abrutyn, forthcoming). In 2020, the widely circulating cultural trauma narratives concerning climate disruption are joined with a host of new cultural trauma narratives dealing with the COVID-19 pandemic as an existential crisis (Demertzis and Eyerman, 2020). Like the cultural trauma narratives precipitated by climate disruption, the trauma narratives relating to COVID-19 thematize an ongoing crisis in the present rather than a crisis in the historical past. Also, COVID-19 resembles the climate crisis, inasmuch as its effects are “totalizing” and truly global, reshaping every aspect of the lives of almost every inhabitant of the world.
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis (Demertzis and Eyerman, 2020). Further, while some foundational studies of cultural trauma have emphasized interaction around disaster events as potentially producing solidarity (Alexander, et al., 2004), the COVID-19 crisis seems to have magnified preexisting political and cultural conflicts.

Given the multiple constituencies and types of social actors who are in some way cognizant of climate change and contagion from COVID-19, it follows that multiple frames and narratives coalesce around these collective crises. Emergent collective trauma narratives highlight the urgency of extreme and difficult changes necessary to collectively avert further crises, difficult changes that may fundamentally restructure daily life, national economies, and the fabric of “modern” society (Žižek, 2010). Further, the narratives relating to both climate change and the COVID-19 pandemic offer insight into the politicized character of trauma narratives which thematize existential crises connected to the natural world, particularly those in which opinions differ about the manner in which authorities have risen to the challenges of the moment. As the findings will show, all of these frames are visible in the data analyzed herein.

The digital public sphere

In addition to extending theories of cultural trauma to climate change and COVID-19 in Brazil and the United States, this research also contributes to the established literatures on the digital public sphere. Over the last two decades, work on the digital public sphere has grown and changed dramatically. Early studies probed the liberating promise of digital spaces to foster utopian dialogic exchange freeing participants from the space-time continuum. As early as the late 1990s, Internet researchers began to explore political talk generated in “online” discussion spaces, asynchronous threaded exchanges in Usenet groups, and real-time chat rooms sponsored by early titans Yahoo and AOL (Hill and Hughes, 1998). These studies established virtual fora as excellent settings for exploring how different types of naturally occurring discourse evolve among people personally unknown to one another (Weger and Aackhus, 2003).

Pioneering studies documented participants’ willingness to engage in ongoing “multilogues” with others in which they are exposed to a range of topics, diversity of viewpoints, and spectrum of perspectives (Bennett, 2008; Stromer-Galley and Martinson, 2009). Discourse was studied as the products of the interaction between a number of potentially anonymous individuals known to each other only through their opinions. For this reason, much of this early research on political talk was designed to ascertain whether political discourse in digital fora could equal the quality of deliberative off-line discourse in terms of coherence and other “dialogic” properties (Stromer-Galley and Muhlberger, 2009). And indeed, while this may seem normative 20 years later, prescient studies of digital discursive spaces made important inroads that today allow us to take for granted how genuine dialogic exchanges are produced in digital discursive fields (Herring, 2003).

These findings continue to hold true today for emergent phenomena including digital discourse fora housing discussion of the environmental disasters and the pandemic. The digital public sphere has become a natural home for discussion of climate change and the environment (2015). Barr’s (2011) study of discourse surrounding climate change and sustainability on the Guardian shows how virtual discussion provides rich opportunity for discursive interactions surrounding the role of human action in inducing climate change and global warming. Similar engagement with environmental issues is also present in Ross and Rivers’ (2019) work on media frames in which participants in digital commons engage in persuasive debate, as is the discourse studied by Lewandowsky, et al. (2015) on climate change and public understandings of science.

Carvalho’s (2010) study of media discourse also finds important connections between environmental stances and political subjectivity. This is the case for Elgesem, et al.’s (2015) examination of how digital community members make linkages between their views of climate change and larger political belief systems. Taddeicken and Reif’s (2016) study of German climate discourse communities indicates their empowering effect for lay people to discuss issues of the day. These studies make clear how participants
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis

readily engage in deliberative debate in digital spaces, including those devoted to climate change and COVID-19, as meaning-making activities that shed light on their understandings of the social world.

Data

With the lockdowns and stay-at-home orders in Brazil and the United States at the time of data collection, digital discourse communities provided a vital lifeline for the digitally advantaged seeking to engage with one another in a time when face-to-face contact presented a hazard. Within this context, this research examines how these phenomena converge in a revealing data point: a digital discussion across three flagship newspaper fora in Brazil and the U.S.: *O Estado de S. Paolo* (“Estadão”), *A Folha de S. Paulo* (“Folha”), and the *New York Times* (“NYT”). The inquiry exploits the opportunity for a comparative case-study design afforded by simultaneous publication of YouTuber and TikToker Felipe Neto’s vlog commentary in the *New York Times* published on 15 July 2020. In the vlog, Neto offers a wide-ranging critique of hotly politicized issues in Brazil and the U.S. Within hours, Brazil’s leading papers run English and Portuguese transcripts of the vlog. Folha’s headline reads: “Bolsonaro is the worst president in the world, says Felipe Neto on the NYT.” At the same time, *O Estado de S. Paolo*, runs a headline reading “Felipe Neto says that Bolsonaro is the ‘worst president in the world’ on video on the NYT.” These two Brazilian papers also run parallel coverage with links to the NYT story, coverage of Neto’s vlog, and multilingual transcripts. In response, Brazilians and Americans flood the fora across the three newspaper sites in a multilogue in which they introduce their own spontaneous lines of discussion that go far beyond Neto’s vlog. The resulting dataset is comprised of 757 total posts: 476 posts from the *NYT*, 95 posts from *Folha*, and 186 posts from *Estadão* for 15–16 2020. As with all qualitative case study research, this dataset cannot be generalized to a larger population.

The fora discourse is theoretically relevant as “public” discourse in the sense used by social scientists who study the public sphere (Eliasoph, 1998). Participants’ jointly produced commentary provides a rare opportunity to map out parallel perceptions of extreme climate events and COVID-19 generated cultural trauma experienced by Brazilian and American participants in dialogue with one another. There is good reason to analyze this singular dataset. As no comparative cross-national research has focused on these discourses, we can say very little about the ways in which individuals across South and North America understand how the twin menaces of climate disruption and the COVID-19 pandemic are threatening the fabric of society. Therefore, it is necessary to carry out comparative case studies (Ragin, 2004). Despite the global impact of the pandemic and the rise of climate change, however, the majority of existing studies examines single nation cases. With a few exceptions, very few analyses undertake global comparison of these important issues despite the rising importance of BRICs countries including Brazil. Therefore, the Brazilian case matters not only in its own right (Schoonmaker, 2018) but also as an important comparison vis-à-vis the abundant North American and Western European case studies prevalent in the literature.

Methods

As with the vast majority of qualitative inquiry, the value of research is in examining revelatory cases (Yin, 1994) rather than producing representative samples (Luker, 2009). This holds true for the present research in that the data have considerable explanatory power to enrich theories of cultural trauma but are not nationally representative samples. Rather, the study’s data reveals how ordinary newspaper fora participants in Brazil and the U.S. see their country’s role on the world’s stage as the powerhouses of South and North America that were leading the world in COVID-19 deaths and environmental disruption. Because these participants share a common focus of attention, the discourse of forum participants offers an ideal occasion
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis to examine the ideological alignments that characterize discussion of climate change and COVID-19 in Brazil and the U.S. The fora’s variety as “discursive fields” [1] and “grammars of evaluation” (Lamont and Thévenot, 2000) afford the opportunity to theorize the degree to which American and Brazilian participants share views on the threats posed by COVID-19 and climate change, as well as opinions of how their respective governments are harnessing climate science in response to threats to the environment and the pandemic.

In order to advance the analysis at the semantic level, I exploit the techniques of “frame” analysis devised by Gamson (1992) to study political discourse. Many coding schemes accommodate only “objective” coding categories such as direct reference, interactivity, and illocutionary status (Stromer-Galley and Martinson, 2004). Issue frames elude such coding schemes and require an interpretive strategy aimed at teasing apart the meanings of the various underlying frames used by individuals. Here I take my cue from the work done by cultural sociologists interested in political topics and political sociologists who use frames to analyze multi-party exchanges regarding controversial political issues such as nuclear power and the Israeli-Palestinian conflict (Fisher, 1997).

Methodologically, the analysis follows the rich sociological tradition bridging traditional ethnographic and qualitative methods from the “off-line” world into digital spaces (Nippert-Eng, 2015, 2010). To generate the comprehensive inventory of frames, I inductively coded the universe of data. To create an exhaustive list of frames, I began open coding of the data to demarcate analytic categories and inductively engaged in multiple rounds of code-and-recode followed by initial memos. Using grounded theory, open coding allowed patterns to emerge, and the process allowed me to develop several hypotheses with which I returned to the data. I then engaged in several rounds of code-and-recode to inductively confirm the reliability of the codes across all three data groups and to develop more fine-grained hypotheses. With these hypotheses, I then proceeded to focused coding and produced integrative memos. Through this process, the categories used for content analysis and the accompanying inductively derived hypotheses were grounded in the data regarding climate change and COVID-19, politicization.

The codes were further verified through a secondary iterative strategy of randomly sampling posts to compare codes and frames across the three cases. Taking three random samples of posts, I generated the first random sample in order to assemble a comprehensive inventory of the issues. I used this inventory to develop a coding scheme that reflected dominant issues discussed and self-identified nationality. Once I had completed generating this inventory of issues and identifiers, I generated a second random sample. I used this second sample to obtain a detailed inventory of issues and identifiers and compared them across the three venues. Using this inventory, I ensured that variation could be measured across the three cases and was not a product of the particular forum or nationality. To ensure the integrity of these identifications, any commenter whose nationality could not be determined was excluded from the data set analyzed here.

Nationality was ascribed based on comments/commentors meeting at least one of the following criteria: 1) commenters’ self-identification with phrases such as “as a Brazilian” on the NYT site in either English or Portuguese, 2) location in Brazil as identified by the NYT which is posted for each comment, and 3) posts (all of which were in Portuguese) on either of the Brazilian Estadão or Folha sites with language such as “here in Brazil” or “our president Bolsonaro.” Finally, I generated a third random sample of the posts from the three sites to obtain operational definitions with which I again recoded the entire data set a final time. All samples were randomly selected using a random number table. These numbers were generated using the statistical package STATA.

Finally, a few notes on the treatment of multilingual data is in order. To ensure the accuracy of translations, I engaged in several rounds of back-translation across Brazilian Portuguese and English. Although references to COVID-19 are standardized for clarity, translations of the original Portuguese text stay true to the original in tone and content. While spelling and grammatical errors have been corrected, any historical or factual errors have been left uncorrected. Any insensitive terminology is retained, translated, or transcribed from the original text. For example, the term “American” is taken from the language used by participants; participants overwhelmingly used the term “American” to refer to nationals or residents of the U.S. and did not employ terms such as “North American” or “United Statesian.” As with the entire corpus
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis

of the data, any such choices reflect participants’ language, voices, and points of views rather than those of the author. As is standard with such research, all names and identifiers have been removed.

Findings

As findings reveal, across the fora, independent of nationality, Brazilian and American contributors identified linkages between the two existential crises: climate change and COVID-19. In tandem, a majority consensus emerged that the gravity of these existential threats was exacerbated by the fracturing and politicizing of these twin threats. Discussants pointed to the erosion of what should be politically neutral gatekeepers that have been compromised by hyper-partisan politics. The perceived degradation spurred by politicization, alongside the confluent existential crises, made visible the fissures and fragility of their confidence in political processes, leadership, and governance. Taken together, as a whole, the commentary painted a picture of an overarching meta-crisis fueling a sense of deep-seated cultural trauma.

The climate-COVID connection

Across the three fora, Brazilians and Americans spontaneously and explicitly connected climate change to the pandemic as twin existential threats. As this Brazilian contended:

It’s unfortunate that it took a virus for us to have this global political reckoning, but, perhaps, it was inevitable. However unlikely, one can only hope that the lesson it’s teaching us is not soon forgotten, because it’s just a preview of what will happen if climate change remains unaddressed.

For this American, climate change and COVID-19 were parallel crises posing life-and-death threats:

The coronavirus is a fast-moving crisis ... while another crisis develops — this time a slow-moving one, whose effects are much more difficult to see by the average Joe, but which has potential consequences far worse than COVID-19: climate change.

Linking climate change to COVID-19, Brazilians and Americans explicitly referred to environmental destabilization as an existential threat shared by the two countries and the world: “The response to COVID-19 shows — unfortunately — how much work we have to do, globally, to collaborate against common enemies. The pandemic is an opportunity to learn. We face another common, existential threat with climate change.”

In light of the twin challenges of environmental disaster and COVID-19, a number of Brazilian and American contributors believed that Brazil and the United States were on parallel paths of destruction. As this Brazilian wrote: “... Brazil and the U.S. are democracies that share many common problems ... Bolsonaro ... [is] a big threat to the environment as deforestation in the Amazon region, for example, has seen a scandalous increase after he got elected.” Yet another Brazilian added: “The same chaos has been installed in education system, environmental preservation, healthcare, economy and more.” This American concurred: “It’s almost as if there is a competition between Brazil and the U.S to see who has the worst president in handling the virus.” Another contributor stated:
What a wonderful country Brazil is to have the Amazon with a president like Trump. While Trump allows the air to be poisoned here, Bolsonaro allows the forest that produces the most air to be cut down. And the rest of us allow them the ability to breath air.

Yet others joined in: “... the problem is that Brazil’s deep social inequality can make everything even worse than U.S ... We still have to deal with environment, education and corruption issues while trying to survive COVID-19.”

Both Brazilian and Americans underscored the immediacy of the threat of COVID by identifying death tolls. However, where the climate was concerned, Brazilian commentators perceived the threat as much closer to home. By contrast to Americans who expressed generic concerns about climate change globally, Brazilians named particular events and regions, most often the Amazon:

As a Brazilian, I couldn’t contain my tears ... It’s hard to see our suffered country in the hands of this genocide. But, apart from the COVID disaster, we cannot forget what Bolsonaro does to destroy the Amazon forest and for our sadness when the world will be conscious of this damage, it will be too late.

This Brazilian pled: “Unfortunately, all of this is real. We Brazilians were abandoned by our president when we needed it most ... and this has been very harmful for us, for our Amazon forest and for all humanitarian problems in Brazil.” These Brazilians warned that if Bolsonaro was allowed to “burn down the Amazon rain forest” this “project promises to desertify the whole equatorial band and drive global warming.” Even more insidious, some Brazilians suggested that Bolsonaro was using the pandemic as a feint to legislate environmental harm:

... [Bolsonaro’s] environment minister was recorded suggesting major names in the government to take advantage of the “distraction” of the press with small things as thousands of deaths and threats to the democracy to eradicate defense regulation in the Amazon forest ... And he vetoed the sending of medical aid to indigenous people in the midst of the pandemic.

Indeed, in May 2020, it was reported on Estadão (2020) that Bolsonaro’s Minister of the Environment Salles suggested taking advantage of the pandemic to hurry through (literally passar a boiada or letting the cattle pass) anti-environmental legislation.

Climate science in crisis

As they connected climate change and COVID-19 as existential threats, contributors elaborated two key issues. First, science writ large was necessary to confront these challenges. Second, those critical of their presidents charged that the political leadership of each country was practicing science denialism. These Brazilians and Americans agreed: “I really don’t see much of a substantive difference in what they communicate: disrespect for expertise and knowledge.” They saw broad parallels in the damage to climate science and medical science, which they linked together as equally perilous:

I think the comparison is legit, but I disagree that Bolsonaro is
the worst since all he does is copy Trump (who is his supreme leader). They deserve each other since they are both despicable in having no regard for human life, science, democracy, environment and for the entirety of the peoples they represent.

These participants co-constructed a tapestry of different forms of science denial with two key themes woven throughout: failing to enact measures based on climate science to protect the environment and failure to enact behavioral measures based on medical science to protect public health.

Regarding climate science, both Americans and Brazilians identified climate science as the solution to the global problem of environmental destabilization: “We share a crowded planet and don't forget we all live ON THE SAME PLANET!” They warned: “The human race is right on track to beat Enrico Fermi’s estimate that it is likely to destroy the Earth within 200 years of developing nuclear weapons” and that “they might even succeed at destroying the Earth without even firing their nuclear weapons: an immense achievement!” In addition to the more global statements made by Americans, Brazilians provided more detailed references to national policy decisions. Among them, a number of Brazilians asserted that Jair Bolsonaro routinely ignored climate science as it was often in conflict with his allies’ economic and/or political interests:

Bolsonaro is not only the worst president at handling the virus he is the worst at many other things, i.e., Does not believe in climate change or science, wants to cut down the Amazon rain forest for the lumber and clear it for farming, wants to get rid of the Indigenous Indians who have lived there for centuries.

They framed COVID-19 and climate change as two sides of the same coin of science denial: “… the Amazon is being destroyed and we have a military man in front of the health ministry during a pandemic!” These Brazilians believed that science denial was a threat to both fighting the pandemic and saving the environment: “Bolsonaro rejects science when the only thing can save Brazilians is science itself.” Brazilians interpreted the rejection of climate science vis-à-vis the pandemic as indicative of the larger menace posed by science denial writ large. As one noted explicitly: “Either science defeats these deniers or they will make this planet uninhabitable.”

Concerning medical science, a majority of contributors accused their country’s leadership of undercutting behavioral measures that had been scientifically proven to slow disease transmission. As this American underscored: “In both cases, the problem is the way both heads of state are failing to react to the disease ... The pandemic can be controlled by measures available to all; avoidance through facial masks, distancing, and sanitizing.” Across the Americas, participants lamented the denigration of medical science that should have been used to save lives during the pandemic:

... they have the same “modus operando” I accept the right and left forces alternating in power as a beauty of democracy. Unacceptable are the rant, the anti-scientific disinformation and bigotry that the leaders in office are promoting. The right in Brazil should be ashamed of who is representing it and choose better names.

A host of others added permutations of this framing: “… we now compete for the worse of things ... discrediting and ignoring scientific judgement ... We are now number one at most COVID-19 infections in the world ... unbelievable, given all the capable scientists and medical professionals at our disposal.”

Brazilians were critical of spreading misinformation, irresponsible personal behavior, and destructive governmental policy — all of which they believed undermined the potential lifesaving effects of medical science properly applied to combat COVID-19. In terms of public health, they charged Bolsonaro with
The problem is that Bolsonaro has been contradicting health experts since the pandemic started, advocating for a “vertical social isolation” which he invented and that has no scientific support nor evidence. Also, he said numerous times that COVID-19 is nothing more than ‘a little flu’. No health system can fight that amount of misinformation.

Another Brazilian echoed these charges by accusing Bolsonaro of willfully spreading misinformation by word and deed: “As a leader of a big nation, Bolsonaro must control himself and respect people. When he says don’t wear face mask and take chloroquine, He’s not respecting the nation. He’s not a doctor ... .” Multiple Brazilians accused Bolsonaro of endangering lives by publicly flouting behavioral modification prescribed by medical authorities: “Bolsonaro ... did not support a single quarantine day ... He rejected a law that made masks mandatory! and Bolsonaro rejected a law that made wearing masks mandatory in the country and minimized COVID. This is the precipice we have reached.” Brazilian participants commented on the modeling of super-spreader behaviors: “The Brazilian president wasn’t wearing a mask then wiped his nose and shook hands with another.” Not only did they critique Bolsonaro’s failure to personally adopt behavioral practices advocated by medical authorities but they charged him with weaponizing the power of the state to endanger others:

And [Bolsonaro] vetoed a law that made masks mandatory in public places. And he vetoed the sending of medical aid to indigenous people in the midst of the pandemic. And sabotaged attempts to post financial aid to small businesses and people in need, to compel them to step out their houses and return to work.

In their eyes, Bolsonaro’s undermining of science was interpreted as a threat with much larger implications: “Bolsonaro is a nightmare for our fragile democracy and his policy in Education and Public Health is completely chaotic. My country is infested with a president and his administration who don’t believe in Science. Brazil is lost!”

While some Americans framed mask refusal as symptoms of science denial, those critical of the president were more likely to rail against what they saw as the lack of transparency and alleged subversion of medical authority for political reasons. Comparing the two presidents, this American contended: “Trump took a page from Bolsonaro and officially started concealing COVID-19 data from the public to bolster his own image. So what’s the score now, Brazil? I think we’ve pulled out ahead.” Another sarcastically enthused:

Because Dr. Navarro weighed in once again and he really is a doctor, as he never tires of reminding us, and he put Dr. Fauci in his place, which surely must be at the very bottom of the Administration’s long list of medical personnel. But Dr. Navarro does have something important in common with those great physicians — his degree has absolutely nothing to do with medicine. In the Trump Administration, that fact alone confers upon him the authority to say whatever he wants, when- and wherever he wants, all the while reminding us that he’s a Harvard guy, so shut up and listen.

Other like-minded Americans chimed in: “With Trump trying to suppress Coronavirus data by cutting CDC out of the process Trump is making a strong effort to win the title of this article!” Another contributed: “Donald ‘The-Super-Spreader’ Trump, wants all hospitalization statistics to now be given to his Health and
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis

Human Services Secretary, instead of the CDC! In other words, the U.S. is about to ‘go dark’ as far as public health information is concerned.” Yet others tied together the twin existential crises, both of which they believe were exacerbated by the politicization of science, which stood as the root problem hindering “dealing with any crisis or problem where science is crucial or any kind of expertise is required, from climate change to COVID-19.”

Crisis in the media

Significantly, concerns over science as politically neutral were mirrored by worries about the credibility of the media as apolitical. However, whereas consternation over the enfeeblement of science skewed towards critiques of the presidential administrations, dismay surrounding the media was expressed by contributors across the ideological spectrum. As this Brazilian explicated:

As a Brazilian, I would add that democracy is as good as the education of the people ... in those countries in which education is performed recklessly, democracy often leads to dictatorship in so far as fascist tendencies include the idea of questioning science and the ones who have knowledge (a degree, some academic title). Here in Brazil, as well as at the United States people with no knowledge at all believe what they want regardless of proof, so it’s easy to deceive and redirect them with fake news ...

Collectively many exclaimed: “Do we subscribers deserve this kind of bottom of the barrel journalism? Gossip mixed with fake news ... It just confirms popular opinion that the traditional media is in decline and has lost all standards!” This American living in Brazil lamented:

As an avid news hound and subscriber to the New York Times I can say that many of the chosen opinion pieces, and hard news reports, appear to lean at a steep angle towards putting our current leader in a bad light ... which makes it a little harder to separate the chaff from the wheat.

A plethora of comments savaged the three newspapers carrying the vlog: “They are not fake news but a way to present decontextualized truths that generate confusion in the minds of adolescent followers. It serves neither to support nor to attack. Worthless. I’m sorry NYTimes and Estadão are giving him airtime.”

Significantly, many of the comments targeting the crisis of the media aimed their slings at the valorization of Felipe Neto as evidence of corruption of traditional media as reputable. As most Americans were unacquainted with the YouTuber, these opinions were primarily voiced by Brazilians expressing repugnance at what they framed as the degradation of the media in both South and North America. Even if they agreed with Neto’s opinions, the majority cast aspersions on his elevation by all three newspapers to the position of a serious political commentator, as he was primarily known as a children’s content creator on YouTube and TikTok. Expressing dismay over what they saw as an unholy marriage of Neto’s influencer status with flagship newspapers, there was widespread agreement: “Sadder than having Bolsonaro as President, is having a Felipe Neto as a political commentator. End Times!” The elevation of Neto became a lightning rod to lambaste his attempt at citizen journalism:

This is not journalism and it is a shame that the New York Times has fallen for this money driven person. Of course,
everyone [with] ... common sense would criticize the manner that both presidents are coping with the pandemic crisis created by COVID-19. Both Trump and Bolsonaro are terrible, but what was published today is just rubbish from a phony guy who is only interested in making money. But I doubt the New York Times will publish this note. Ms. Bari Weiss was right absolutely right to quit this journal [newspaper].

Particularly as the vlog was published the day after the resignation of Bari Weiss [2], they decried what they saw as the collapse of the media as apolitical and thereby undermining governance processes:

NYT is the o Globo spoken in English. And Felipe Neto is nothing. Now, speaking of NYT, instead of wasting time on this nonsense, Estadão could take on a subject that is at boiling point in the U.S.A., in this case the letter of resignation from Bari Weiss, one of the NYT editors who is being persecuted within the paper by people exactly like this YouTuber. The letter is startling and shows how rigged one of the great mainstream American newsrooms has become and the threat to democracy ...

In addition to repeatedly stating a litany of Neto’s alleged transgressions, contributors were horrified by the mainstream media’s endorsement of Neto:

I don’t know who is the worst Bolsonaro or Trump, but the worst producer of children’s content on YouTube is Felipe Neto. I didn’t understand how the NYT gave voice to a guy who got rich asking 5-year-olds to call a number, at the cost of 2 dollars to apply for a raffle for a ‘wonderful’ visit to his home ... . This guy is a big scammer.

In sum, they charged these flagship newspapers with neglecting their public duties to provide journalistic content contributing to civic debate on the pandemic: “It is frightening to think there are well-paid editors in this newspaper who have not recognized that in a crisis you need to have discipline and focus in the reporting and messaging.” They saw the damage wrought to the media as contributing to the collective trauma carrying both countries closer to the edge.

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Crisis and contagion across the Americas

Finally, contributors expressed concern regarding the power of cross-national contagion as further indication of cultural trauma. Findings pointed to collective trauma generated by a generalized loss of confidence through the politicization of science and the media, which should be politically neutral. In light of COVID-19 and climate change, their discourse pointed to contagion of this meta-crisis across the Americas: “We all belong to the American continent — we are under the very same storm while in different boats.” Further, those critical of their presidents charted out causal linkages between future elections in the two countries: “The Brazilian response to pandemic is embarrassing. America must help Brazil avoiding reelecting Trump ...” Another claimed: “... if you guys want to help Brazilian people and yourselves as well, don’t keep Trump on as president ... in November.” These individuals saw the 2020 U.S. election as potentially having a domino effect in Brazil:
Hope U.S. citizens don’t miss the point. It’s not a competition, it’s an open letter begging you guys to not reelect Trump ... this way we hope Bolsonaro will be sufficiently weakened to no longer be relevant for the run. Your vote is not only about your country. It’s relevant for America, the continent as a whole.

They viewed Brazilian and American civil societies as hanging by a thread: “Formal institutions of democracy are functioning in Brazil, despite Bolsonaro’s attacks. Parliament, Justice and civil society organizations manage, for the time being, to defend democracy and the rule of law. I don’t know if we will be able to resist much longer if Trump is re-elected.” Even more serious, they extended this causal chain from the U.S. to Brazil and then by extension the rest of the world: “Even prior to COVID-19, I lamented how populist figures such as Bolsonaro, Boris Johnson and Trump demeaned politics by elevating mediocrity.” Others extended these claims and believed that: “As a result the populace has paid the price. Here are some of the members of this bad boys’ club: Bolsonaro, Boris Johnson in the UK, Modi in India” and a “Trump victory will give Bolsonaro and extreme-right politicians around the world an extra breath.” For them, the COVID-19 was the canary in the climate coal mine: “It’s unfortunate that it took a virus for us to have this global political reckoning, but, perhaps, it was inevitable. However unlikely, one can only hope that the lesson it’s teaching us is not soon forgotten, because it’s just a preview of what will happen if climate change remains unaddressed.”

Finally, even those whose opinions did not map onto the majority [3] tropes, including those who expressed dissent from the orthodoxy of the “right” and “left” alike, described an overarching meta-crisis fueling a sense of deep-seated cultural trauma. For example, this comment by a Brazilian made clear disdain for all concerned from the right-of center populist presidents to the PT (Partido dos Trabalhadores/Workers’ Party) and PSDB (Partido da Social Democracia Brasileira/Brazilian Social Democratic Party):

I am sorry to disagree. This guy [Neto] is opportunistic and has strong leftist ideas and bias. During the last 20 years Brazil has been governed by PT and PSDB both leftists. We had the biggest corruption political scandal of all times! Where were Felipe, the artists, the press? Too busy making a lot of money! I am not defending Bolsonaro or Trump, but this kind of sensationalist video doesn’t help to make a better world and society!

Such contributors framed collective failures to respond to the pandemic and climate disasters as symptomatic of larger crises in which politics as usual continued at the expense of all else. From this angle of vision, these issues were larger than any one election or political party, as this highly “recommended” comment from an American illustrated:

Trump and Bolsonaro are the symptoms of the illness of democracy, not the virus itself. When Trump leaves office in January, racism, corruption, science denial, conspiracy insanity, and so forth, will not go away with him.

Independent of nationality and ideology, they rang the alarm bells as they collectively envisioned the existential crises of climate change and COVID-19 as intimately linked to weakening confidence in governance processes in the two largest countries in South and North America.

Synthesis
To understand the cultural trauma stemming from the existential threats of climate change and COVID-19, there is great need for cross-national comparisons. This research begins to fill this gap by examining a unique discursive dataset ideally suited to understanding the relationship between perceptions of these crises and the sense of cultural trauma in the unprecedented year of 2020. In studying the naturally occurring narratives of the Brazilian and American contributors to the discussion fora, this study reveals how the twin existential crises feed into perceptions of a meta-crisis, which has enveloped both the U.S. and Brazil. As the analysis has shown, it is evident that climate destabilization and environmental degradation share the stage with the COVID-19 pandemic as existential threats producing widespread cultural trauma in the eyes of these Brazilian and American contributors. This sense of meta-crisis emerges from comments across the ideological spectrum, independent of nationality. But the contributors’ perceptions of these twin crises cannot be grasped apart from their consternation and discontent about the breakdown of key societal arenas, which further accelerates the deeply rooted sense of trauma. Thus, in narratives from the two largest countries in South and North America, we can observe a narrative nexus between the twin existential crises of COVID-19 and the degrading climate alongside an ongoing political crisis with implications for confidence in transparent governance and civil society.

**Discussion: Cultural trauma in the risk society**

This article has shed light on how the unprecedented conjunction of the pandemic and environmental disaster in 2020 converged with a highly polarized political environment to fuel a distinctive sense of collective and cultural trauma during a high-stress moment for both countries. In articulating narratives about the existential threats posed by both the climate crisis and the pandemic, crises which call for urgent and effective large-scale collective action, contributors from both countries also expressed a sense of collective trauma about the state of their functioning governments, which they saw as too dysfunctional and weak to function effectively as bulwarks against the two existential crises.

The trauma associated with the two existential crises — and the concerns expressed about the politicization and weakening of the body politic — are best understood in relation to Beck’s risk society approach. Even though they may affect ordinary individuals directly, both the COVID-19 pandemic and the climate disruption crisis are highly mediated crises in sense that individuals’ perceptions of them are shaped by these two gatekeepers. Indeed, as Beck noted over three decades ago, one of the primary characteristics of modern risk society is that lay people must defer to science and experts in diagnosing risk-bearing crises and events, as well as understanding potential collective and individual responses to them (Beck, 2009, 1992). This is particularly true when the source of the crisis is beyond the control of any one person and is not easily understood without recourse to scientific thinking. However, the public’s dependence on science as a neutral and trustworthy guide to behavior and policy already poses challenges even when it retains some semblance of neutrality and authority.

By contrast, in light of the traumatic events of 2020, we see the extent to which science and the media are themselves seen as dysfunctional, hyper-politicized, and corrupted by personal interests. Due to their political instrumentalization, neither is viewed as capable of serving competently as conveyers of information and guidance on behalf of the public and the collectivity. This realization on the part of the commentators not only sparked anger and despair but crystallized in a sense of meta-crisis. It also turned the keen sense of existential crisis, short-term and long-term threats to life, health, and livelihoods, into a sense of cultural trauma directly tied to the concerns about society and governance. At a deeper level, this lack of trust in science and media, coupled with a lack of trust in the government at multiple levels, signaled a deeply felt loss of agency and autonomy. This loss of agency left individuals feeling particularly vulnerable in the face of unprecedented hazards.
Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis

Future study

At the time of writing, the meta-crisis continues. Both countries are still afflicted by the existential crises posed by COVID-19 and long-term climate disruption. With respect to COVID-19, at the time of writing, the pandemic had reached an even more perilous stage in Brazil, with highly transmissible Brazilian COVID-19 variants on the rise and no clear end in sight for long-suffering populations in hotspots such as Manaus. In regards to the climate, although the fires have eased for the moment, more catastrophic fires and climate events have been predicted for both countries in the near and distant future. Politically, while the newly formed Biden administration has rejoined the Paris Climate Accords, the potential effects of diplomacy on climate change have yet to be determined. As this indicates, the political climate in both countries remains highly polarized and dismay at the hyper-politicization of pandemic and climate response continues to run high. Thus, the conditions, which led to the 2020 meta-crisis, remain in place.

Future opportunities to explore the nature of this type of cultural trauma more deeply will undoubtedly present themselves. Such future work would do well to problematize the processes of climate change and COVID-19 as extended, ongoing, and mutually reinforcing cultural traumas that may be fundamentally different in scope than previous traumas. What is essential is that future studies should focus not only on the cultural trauma issuing from existential crises like climate change, but also take into account the interplay between this type of trauma and the trauma associated with political fracturing. Therefore, we must continue to examine cultural trauma stemming from existential threats, as well as the collateral damage to confidence in our bulwark gatekeepers that undergird both Brazilian and American systems of governance and their abilities to rise to these challenges.

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Notes


3. As indicated in the analysis, the majority of dissenting comments took an “anti-anti” stance that is apolitical. This small subset of contributors resisted over-politicization and over-personalization of both existential crises by critics of the Trump and Bolsonaro administrations. While their voices were in the minority, they argued that the meta-crisis was not on account of the failed leadership of the two populist presidents with regard to the environment or the pandemic. Rather, they contended such vast and complex crises are beyond the control of any one individual. Instead, they argued that both the degradation of the environment and the COVID-19 pandemic required a shift in focus away from these controversial leaders and towards the mundane actions of local leaders and everyday citizens. Finally, the smallest subset of voices included a fraction of enthusiasts whose comments included “I think Bolsonaro is a super president” and “Bolsonaro is great president who speaks for the people. He is consistently both ethical and honest” and “I wouldn’t say that President Trump is the worst president pandemic or no pandemic. I think he’s been pretty great and intend to vote for him again in 2020 November. I think that many will also publicly and privately do the same” and “Actually Trump has done quite well if you disregard the politics. The U.S. is 7th in the World accounting for death rate per capita ratio ...”

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Canaries in the climate coal mine: Climate change and COVID-19 as meta-crisis


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