**COVID-19 through the Prism
of Rhetorical and Discourse Research**

COVID-19, Climate Change and 'The Denial Playbook': on the Rhetoricality of Science Denial in the COVID-climate Analogy

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Abstract: The current article examines the discourses articulating the ongoing COVID-19 pandemic crisis through the rhetorical strategy of the covid-climate analogy. This analogy establishes a resemblance of structural relations between the two crises through the shared centrality of science denialism. By representing climate change as an analogous crisis of a longer time frame that functions as a cautionary tale, it emphasizes the rhetorical *kairos* noting the contextual factors through which the communicative challenges and failures of the pandemic can be better understood and potentially countered. The author notes the rhetoricality of science denialism in the covid-climate analogy as understood through the argumentative scheme of the 'denial playbook', a context-specific thematic thread, that may be interpreted as a conventional(ized) *topos* of denial. The topos of denial is utilized as a topical inventive strategy in discourses articulating and (re)framing the crisis(/es) that clarifies the common suasive strategies of climate denialism and COVIDenialism useful for further inquiry into the communicative dimensions of the complex and intersecting social, political, and ecological crises of our times.

Keywords: COVID-19, pandemic crisis, rhetorical strategy, rhetoricality, COVID-climate analogy.

Introduction

Since the outbreak of COVID-19, expert commentators have drawn a number of parallels between the pandemic and climate change. Early correlations between the two global exigences emphasized 'the bright side' of an otherwise catastrophic devastation wrought by the pandemic – the abated greenhouse gas (GHG) emissions from a decline in industrial and economic activities. An article published in *Nature Climate Change* [1], a widely acclaimed science journal, noted the environmental effects at the height of the pandemic-related restrictions stating that, "Daily global CO_2 emissions decreased by -17% …by early April 2020 compared with the mean 2019 levels" (p.1). Another study [2] cited reports

produced by the U.S. *National Aeronautics and Space Administration* (NASA) and *European Space Agency* (ESA) to highlight air pollution reductions of up to 30% in some early Covid-19 epicenters. Contrary to the informed speculations and forecasts of earlier estimates, the United in Science 2020 [3] report compiled by the *World Meteorological Organization* (WMO) published later found that the CO_2 emissions had returned to within 5% of the mean 2019 levels for the same period. Ultimately, the evaluation of the 'environmental gains' of the pandemic was deemed largely ill-considered for ignoring sustained systemic changes imperative for effective climate action. In fact, with infectious disease outbreaks and pandemics projected to grow in frequency and severity as a result of unchecked and rapid climate change, a correlation framed in terms of the 'nature is healing' argument is patently misleading and even detrimental to understanding the full scope, associated risks and disastrous outcomes of the intersecting exigences of the present.

To be sure, there are several interconnections between the two global crises that substantiate the basis for correlations. For starters, their comparisons have brought to fore a shared approach necessary to construct public and environmental health as deeply entwined global (health) emergencies. The issue of air pollution is among the most immediate shared material concerns. For decades, the interlinks between degrading air quality and climate change have been recognized and studies have detailed the overlapping threats caused to the environment and human health from releasing chemical and particulate substances into the earth's atmosphere, especially the most potent pollutants like methane, black carbon, and hydrofluorocarbons. Consistent with prior findings, current research on the subject of SARS-CoV-2 (Hendryx and Luo [4], and Petroni et. al. [5], Wu et. al. [6]) affirms the links between air pollution and heightened susceptibility, morbidity, and mortality rates related to the novel coronavirus. The shared impacts of air pollution reveal the disproportionate burdens of social inequities as those most exposed to air pollution (particularly over a long span of time) are significantly more vulnerable to the devastating consequences of covid-19 and climate change. The feedback loops formed between climate change (that alters the earth's ecosystem, human-non-human relations, as well as the frequency of the appearance of unknown pathogens), air pollution (that intensifies the critical risks and impacts of infectious disease outbreaks), and social inequities (that impact the likelihood of exposure to dangerous risks), therefore, exacerbates the experience of the pandemic. In this context, the need for rhetorically inventive framing to communicate the intersecting crises is being recognized; as an article published in the medical journal *The Lancet* [7] suggests, framing it in terms of

a "syndemic" as opposed to a "pandemic" – broadening its prospectus to include how the 'social' interacts with the 'biological' – in order to devise policies that counter disparities instead of pursuing purely biomedical solutions of treatments and vaccines. Highlighting the communicative aspect of the exigence, the framing of an "infodemic" by the United Nations amid "viral" misinformation/disinformation (including science denialism and violent scapegoating) invokes another dimension of global (geopolitical) circulation crucial to understand the present scenario. Expert communications and pandemic-induced linguistic innovations abound; it is pertinent still to recognize that discursive framing is not (merely) a matter of short-term communication issues of messaging and political persuasion but rather of constituting the conceptual structures (frames) to facilitate comprehension of complex realities that enables appropriate action (Lakoff). [8] The communicative concern for framing this correlation addresses in part the challenge of what Lakoff [8] describes as "hypocognition" or the lack of ideas/frames to interpret deeply complex and intertwined issues. Among the most evident communicative aspects of the covid-climate correlations are the political, ideological, and moral influences on discursive framing fundamentally important to understanding what is perceived as the 'real crisis'. In this essay, I will first lay out the methodological approach for inquiring this correlation by situating the apropos rhetorical strategy of the *covid-climate analogy*. Further, I highlight science denialism as the underpinning source of this analogical reasoning and identify the "denial playbook", a context-specific thematic thread, interpreted here as a conventional(ized) *topos of denial* pertinent to science communication.

Methodology

The study of comparisons and similarities has been approached through the heuristic of analogy or analogical reasoning and its closely associated rhetorical trope, the metaphor. In their modern revival of rhetorical studies as the *new rhetoric*, language philosophers Chaim Perelman and Lucie Olbrechts-Tyteca emphasize the importance of analogies for rhetorical invention "fundamentally because they facilitate the development and extension of thought." (p. 385). [9] Perelman and Olbrechts-Tyteca further stress the cognitive importance of analogies in identifying resemblances in structural relations between two terms that belong to distinct spheres; as they note, "it is a resemblance of relationship rather than a relationship of resemblance" (p. 372). [10] Their theory of *new rhetoric* challenges the view predominant in the dialectical-empiricist approaches of formal logic towards analogy as vague, uncertain, and minor/weak comparisons and instead offers a serious treatment of analogical reasoning. In this rhetorical

perspective, analogical reasoning has a didactic as well as persuasive function in making an acceptable claim for the comparison and similarity between two cases primarily as a means to render the unknown knowable. Owing in large part to the influence of this rhetorical approach, contemporary theorists associate the study of analogy as a function of *reasonability* (provisional and contingent cognitive proposals) as opposed to *rationality* (truth or factual claims) (Bermejo-Luque). [11] Put simply, analogies constitute the links in the logical chain of comparisons that facilitate inductive reasoning. Against a prevalent view of analogy as erasure of differences and intellectually unscrupulous, this view emphasizes that a rhetorically-sound analogy necessarily maintains the differences precisely by (re) defining concepts contingently and emphasizing what is contextually relevant to help determine its communicative and pragmatic objectives (H. J. Ribeiro). [12] Moreover, what makes an analogy good from a rhetorical (and less crucially from an epistemological) perspective is its ability to highlight relevant similarities and differences by identifying those that are irrelevant in the rhetorical context. This context-sensitive approach seems indispensable to analyzing the covid-climate analogy as it warrants attention to *kairos* vis-à-vis contemporary intersections of social, political, and ecological crises. It allows for a richer discussion of the identifiable rhetorical strategies through a critical understanding of (inter)text(uality) in context as well as the context-specific importance of mis/disinformation or science denialism in the digital context of social media discourses.

Analogical reasoning frequently takes the form of metaphors – rhetorical figures that aid the understanding of a concept from one domain of experience in terms of one from another domain. The usefulness of metaphors to make unfamiliar concepts familiar more succinctly and with greater rhetorical force explains their frequent deployment as the starting point for drawing analogical relations. Noting the ability of metaphors to fulfil and strengthen the function of analogies, Perelman and Olbrechts-Tyteca regard metaphors as "condensed analogy" or "analogical fusion" and argue that "metaphors can be used to enhance the standing of the analogy" (p. 400). [13] Modern rhetorical theorists like I.A. Richards and Kenneth Burke influenced by Aristotle's treatment of metaphors in *Poetics*, regarded metaphors as techniques of imagination and inquiry reinforcing its fundamental cognitive importance. In cognitive linguistics, Lakoff and Johnson [14] advanced one of the most comprehensive and influential studies of metaphors examining the fundamental metaphorical nature of our conceptual system and the pervasiveness of metaphors in human thought and action. Countering comparison theory, they argue that metaphors create relevant similarities rather than describing preexisting ones. This view inverts the cognitive process by situating

similarities at its culmination primarily by distinguishing what they understand as "correlations" and "similarities"; to summarize it briefly: they suggest that our experiences of correlations result in metaphors (mainly in thought and action and only derivatively in language) that help us perceive similarities. In Lakoff and Johnson's view, similarities based on conventional metaphors are, nonetheless, "*real in our culture*" as they "partly define what we find real" (p.154). [15] Insofar as similarities between two cases are created (rather than described) through metaphorical conceptions, all objective (material) similarities are filtered through human experience and we retain only those similarities that are contextually relevant, necessarily discounting irrelevant and misleading comparisons.

Before proceeding into a preliminary analysis of the covid-climate analogy, it is useful to recognize that as subjects of specialized scientific knowledge of continued urgency, their correlation has been deployed in scholarly (scientific and beyond), political (policy) and media discourses alike. To narrow the scope and to engage meaningfully with their comparisons, the examples I will draw on here are taken from science journalism and media publications for their emphasis on the rhetorical and communicative relevance of science denialism. Keeping in mind a burgeoning interest in the subject, my objective here is not to produce a quantitative record or an exhaustive list of correlations but rather to reveal how this analogy serves to explain a crucial facet of the present crisis by emphasizing the role of politics, with implications for both ideological and moral systems, in denialist arguments. I considered the first five instances of journalistic discourses that included "covid-19/coronavirus" and "climate change" in their headings published in widely-circulated media outlets such as *The Washington Post, The New York Times, The Nation,* and *NPR*. I identified three prominent metaphoric instances taken from these media discourses as entry points to this analogical relation. I note that by representing climate change as an analogous crisis and a cautionary tale, the rhetors highlight the *kairotic* context through which the communicative challenges (and failures) of the pandemic are better interpreted and potentially countered.

Discourse without borders: Articulating the Covid-Climate crisis

A widely-recognized metaphor in the communicative framing of climate change as well as covid-19 is that of the 'enemy' – both climate change-induced catastrophic weather events and the pandemic – that does not 'respect borders'. One result is the frequent *securitization* of crisis discourses dominating political rhetoric and media framing. War metaphors do not merely shape our perceptions of the reality of crisis, they define the scope of the discussion that help infer ap-

propriate political and economic actions. Further, as linked scientific discourses, they share another metaphor in the call to "flatten the curve" highlighting the need for prompt collective action in the face of exponential growth. The visual metaphor "flattening the curve", originally coined in the research on 1918 flu pandemic, was easily adapted to the climate curve – an illustrative graph known as the *Keeling Curve* which represents the upward rising trend in the daily record of global carbon dioxide concentrations. Its unanimous uptake demonstrates that the resonance of precarity observable in the pandemic-climate comparisons is readily felt across disciplinary boundaries.

Covid-19 and climate change are most fundamentally connected through the metaphor of *crisis* – an epochal articulation that is ubiquitous in contemporary public discourse evident when one evokes the ideas of a "post-covid world" or the "climate apocalypse". In fact, 'crisis' is among those (seemingly dead) metaphorical concepts deeply embedded in and constitutive of our cognitive structures, better understood as a linguistic (rather than mathematical) expression of analogical relation that correlates concepts through some common signified of crisis. It is revealing that since antiquity, the metaphoric extension of *crisis,* originating in medical discourse, has been characteristically polysemous and despite or because of its great ambiguity, has been easily adaptable to vaguely conceptualize extraordinarily troubling situations. However, as Koselleck and Richter explain, Κρίσις (*crisis*), from its root in the Greek verb κρίνω (*krinō*), meaning (among other things) 'to decide' or 'to judge', has "at all times…applied to life-deciding alternatives" (p. 361). [16] Crucially important to interpreting this long-sustained *crisis* metaphor is its temporal sense that inherently includes a period of transition and decision. Koselleck and Richter elaborate that when conceptualized as *chronic*, crisis indicates "a state of greater or lesser permanence, as in longer or shorter transition towards something better or worse or towards something altogether different" (p. 358). [17] In the present scenario, this chronic notion of crisis is notably expressed in the extensive use of the idiom 'new normal' – a twentieth century phrase that tends to peak during periods of catastrophes, transitions, and uncertainties (Yoder). [18] It purports to offer an interpretive framework to interrogate the present for the relation it bears to the past as well as to our capacity to (re)imagine the future. The 'new normal' commonly deployed in climate change discourses acts as frame readily extended to covid-19 media representations. On the one hand, this frame may represent normalizing tendencies inducing complacency, and on the other, it may be interpreted as representing the reality of progressively (even exponentially) worsening risks. Debates over the 'new normal' tie in closely to the psychological notion of the 'shifting baseline

syndrome', which Soga and Gaston describe as follows, "In the absence of past information or experience with historical conditions, members of each new generation accept the situation in which they were raised as being normal" (p. 222). [19] This idea of the shifting perceptions of change and normalcy when linked to the new normal discourses helps raise critical questions concerning ignoring scientific evidence and/or science denialism – a shared argumentative aspect articulated in the covid-climate analogy. This overarching interdiscursivity offers the contextual background within which we may situate the present inquiry.

The Covid-Climate Analogy

The covid-climate analogy can be understood as a rhetorical strategy that establishes reasonable evidence for a relationship of structural semblance between the two global crises. More importantly, it proves rhetorically inventive for our kairotic moment vis-à-vis the complex realities of intersecting crises. A key inference of this analogy is the structural relation between the two crises as they become entwined with science denialism: in other words, the relationship between the pandemic and denialism as analogous to the relationship between climate change and denialism. By identifying relevant similarities with climate change, the analogy constitutes the basis for advancing a novel interpretation of an unfamiliar crisis. The partial acquaintance with one term in the analogical pair (climate change) helps to clarify the structural relations or establish the value in terms of which interlocutors may interpret the lesser-known analogue (covid-19). The analogical heuristic purports a cognitive proposal and serves an explanatory function by advancing a perspective upon the pandemic, as well as a descriptive function by identifying and organizing relevant similarities and differences. Its exploratory and predictive value is in reasonably determining what can be inferred for the uncertainties and unknown knowledge. From this perspective, the covid-climate analogy operates as a method of deliberation through which a shared communicative (and political) exigence and objective is derived. Metaphors, as noted earlier, frequently act as entry points for analogical relations as they condense and strengthen relevant inferences in an analogy. It seems fitting then to identify prominent metaphors that articulate the covid-climate analogy:

Coronavirus is climate change on steroids
Coronavirus is climate change on warp speed
Coronavirus is a dress rehearsal for climate change

The first metaphor, originally coined by climate reporter Emily Atkin, was circulated as a hashtag on social media discourses. Ironically, in certain instances, the metaphor has been appropriated in subversive denialist discourses linking

covid-19, just like climate change, to a 'hoax'. More interestingly, the idiomatic phrase utilizes what is understood as a negative metaphor in that it emphasizes a key relevant difference of intensity/ time frame between the two crises. In making the analogy, we are prompted to simultaneously perceive both – the similarity and differences – between the two cases. Despite foregrounding a key relevant difference, the analogical quality remains reinforced rather than challenged. Presumably, the correlation here is between the experience of risk, exponential devastation, and death. Similarly, the next metaphor, varyingly attributed to Gernot Wagner, a climate economist at NYU, and Jeff Dukes, an ecologist at Purdue University, by way of a negative analogy evokes the sense of speed in movement or development and establishes a degree of identity between the two crises as they relate to exponentially devastating outcomes. The final metaphor of 'dress rehearsal' evokes the sense of a future-oriented apocalyptic narrative suggestive of an irreversible cataclysm and a sense of inevitability toward a chronic perpetual crisis; even so, within the material and rhetorical context of the covid-climate analogy as global crises intensified by political polarization and ideological affinity-driven denialism, it resonates as a warning. Killingsworth and Palmer [20] have underscored the importance of understanding the *apocalyptic rhetorical frame* that describes discourses narrating a catastrophic end and the lack of human agency to prevent it – a doom-and-gloom rhetorical strategy consistently associated with environmentalists and used to cast aspersions and label them as hysterics or alarmists. While drawing from environmental discourses to climate change seems intuitive, the apocalyptic frame as inferred through the covid-climate analogy appears equally applicable to the arguments put forth by COVIDeniers in resisting public health regulations.

The dismissal of scientific evidence ties in closely with the application of the apocalyptic frame for deriding scientists and experts (like environmentalists) and is not in the least extraneous to discursive framing the crisis(es). As in the case of the environment and climate change, the ethos of the rhetor plays a central role in the persuasiveness of the message, and an attack on it alongside discourses utilizing ideographs like 'freedom' play a critical role in denialist disarticulations. The covid-climate analogy helps foreground the role of science denialism to formulate a distinct perspective on the crises as they intersect with the political-ideological contestations of conspiracy theories and disinformation campaigns mobilized through social media discourses. It highlights an urgent and kairotic contextual factor that affect the perceptions of the exact nature of the 'real crisis' by considering the political, ideological, and moral systems that influence the framing and interpretations of scientific discourses. Naomi Oreskes and

Erik Conway [21] have studied the rhetorical and communicative strategies of the denialism first put forth by the tobacco industry targeting scientific research linking tobacco to cancer which was later adapted for climate denialism. They highlight the fact that individuals and groups employ a 'playbook' of tactics to cast doubts on facts and deny scientific evidence that threaten their economic interests or ideological beliefs. They revealed the key contribution of the big tobacco industry in devising the denialists' discursive and argumentative strategies against science that enabled them to use normal scientific uncertainties or (healthy) scepticism to misrepresent or undermine the status of facts and scientific evidence. This, they argued, set up the strategic model for the science denial for the decades that followed; a model that has informed climate change denialism. Oreskes and Conway's explications have led to a serious consideration of denialist discourses disarticulating science and deploying standardized argumentative methods and patterns, which has been a key contribution to climate change communication studies. The covid-climate analogy, benefiting from this tobacco-fossil fuel industry analogy, provides the basis for establishing the discursive links between climate deniers and COVIDeniers; this is done primarily by deploying the argumentative scheme of 'denial playbook', a context-specific thematic threat in science communication employing a political-ideological lens, that may be interpreted as the conventional(ized) *topos of denial.*

The Denial Playbook

A fitting instance of the covid-climate coalition in denialist discourses is the digital multimodal text in the form of a YouTube video titled "*Is the coronavirus lockdown the future environmentalists want?*" [22] published by the *Committee for a Constructive Tomorrow* (CFACT), an organization pursuing free market approaches to environmental issues that has been linked to the "climate counter-movement". [23] The format of the video is an hour-long discussion panel involving noted prominent denialists such as President James Taylor of the Heartland Institute, a think tank at the forefront of denying anthropogenic climate change, and Marc Morano, publisher of the blog *ClimateDepot.com* whose self-proclaimed goal is to question the theory of anthropogenic climate change. It is particularly interesting to note their text description of purpose that deploys the 'dress rehearsal' metaphor that links it interdiscursively to the prevalent covid-climate analogy, albeit inverting the ideological objective:

> "*How the left is using the lockdowns as a dress rehearsal for a Green New Deal*"

In both COVIDenialism and climate denialism the issues of economy and

political ideological affinity have been central. Killingsworth and Palmer have also identified that anti-environmentalist voices, whom we here identify as denialists, often rely on their own version of an apocalyptic frame. They illustrate this point through the parodic text 'The Desolate Year' issued by Monsanto Chemical Company that mocks Rachel Carson's (1962) essay "A Fable for Tomorrow" from the canonical environmental text – *Silent Spring* [24]. They identify 'The Desolate Year' as "its [Monsanto's] version of a tormented humankind living in a future without the benefits of agricultural chemicals" (p.7). [25] This narrative applies an apocalyptic frame to emphasize an impending economic disaster/crisis as well as the fear of 'big government' in stark ideological opposition to the progressive morals that regard governmental action and regulation as necessary. Such discourses frequently appropriate ideographs of "rights", "freedom" and "liberty" to align with their political ideological stances. Science denialist arguments, including climate change and covid-19, utilize an equal and opposite apocalyptic rhetoric which reflects in the argumentative strategies employed against proposed regulations such as the Green New Deal or the Stay-at-home orders. To theorize such narratives, Schneider et. al. has referred to an important rhetorical form of the "industrial apocalyptic" that they define as: "narratives that constitute the imminent demise of a particular industry or a broader economic system for the purpose of influencing public opinion and public policy." (p. 229). [26] They identify that the industrial apocalyptic is a frequently employed rhetorical frame in arguments constructed to thwart regulatory measures and defend neoliberal ideology as commonsense discourse.

By drawing on the resemblance of their structural relations with science denialism, the covid-climate analogy constructs its reasoning through the argumentative scheme of the 'denial playbook' that may be interpreted as a conventional(ized) *topos* of denial prominent among the rhetorical moves aimed at interpreting denialist discourses. The classical rhetorical concept of *topos* (*topoi*) refers to an inventive or generative rhetorical tool for topical invention; it is a percept or premise for discovering or inventing effective arguments (Zompetti) [27]. Kienpointer [28] has described topoi as the "search criteria" for locating arguments and regards topoi as a means of rhetorical invention. From this perspective, the explication of denialist discourses functions as a form of inventory for deriving arguments. Based on the original elaboration found in classical rhetorical texts, particularly in Aristotle's notion to *topoi* and Cicero's notion of *loci*, a distinction is made between: 'common topics' which are devices to develop an argument, and 'commonplaces' which are argumentative tools to bring audiences to a shared place of interpretation and understanding. However, in their applica-

tion for the present examination of the covid-climate analogy and the discursive formulation of the scheme of the 'denial playbook', I understand common topics and commonplaces as complementary and largely interchangeable terms brought together as useful components to identify and frame the structural relation of the two crises in terms of science denial. The topos of denial as it expresses through the 'denial playbook' relies on the evidence that a set of shared discursive strategies, although discernibly fallacious, is constructed to constitute coherent arguments aimed at the denial of scientific facts, and reality in general. In the present case, it is used to identify and discuss science denialism and the shared or parallel rhetorical strategies between climate deniers and COVIDeniers.

Drawing on the present analogy, Nuccitelli [29] has identified and documented the overlaps between the denial/disinformation tactics of climate deniers and COVIDeniers. Figure 0 illustrates a table in an article published by *Yale Climate Connections,* a subset of the Yale Center for Environmental Communication, that utilizes representative examples of analogous denialist statements in order to explain the five stages of denial:

Stage of Denial	Coronavirus	Climate Change
Stage 1 It's not happening	"The Democrats are politicizing the coronavirus … This is their new hoax" - Donald Trump	"It's a hoax; I think the scientists are having a lot of fun." - Donald Trump
Stage 2 It's not our fault	"China is to blame because the culture where people eat bats and snakes and dogs and things like that, these viruses are transmitted from the animal to the people" - Sen. John Cornyn	"China does not do anything to help climate change. They burn everything you could burn; they couldn't care less" - Donald Trump
Stage 3 It's not that bad	"One day like a miracle it will disappear" - Donald Trump	"[The climate] will change back." - Donald Trump
Stage 4 Solutions are too costly	"We cannot let the cure be worse than the problem itself." - Donald Trump	"I think the climate change is just a very, very expensive form of tax." - Donald Trump
Stage 5 It's too late	"It is going to spread further and I must level with you … many more families are going to lose loved ones before their time" - Boris Johnson	"The climate apocalypse is coming. To prepare for it, we need to admit that we can't prevent it." - Author Jonathan Franzen

Figure 0: Coronavirus doubters follow climate denial playbook by ©Yale Climate Connections is licensed under CC BY-NC-ND 2.5 Generic

The comparison as presented in Figure 0 lays out in five stages the rhetorical-argumentative strategies found in denialist statements. It identifies and organizes relevant similarities according to a *descriptive analogical* scheme as van Eemeren and Garssen [30] describe wherein similarities are noted between the source and target domain, otherwise termed as the premise and standpoint, in order to enable extrapolating a potential similarity yet to be identified. This form of descriptive analogy is well facilitated by the framework of the topos of denial. The denialist statements compiled appear to fulfil three important functions: 1. denying scientific and factual evidence (i.e., undermining the problem and/or its severity), 2. denying the recommended solutions and their economic feasibility (i.e., arguing that we must prioritize economic growth and revival), and 3. arguing that the solution threatens our value-system (i.e., public health restrictions and shutdown infringe on our individual rights, liberty, and freedom). The topos of denial, thus, helps to identify and organize the relevant similarities examined through the rhetorical strategies in the denialist discourses disarticulating the two crises. Although identified primarily in the American context, similar strategies can arguably be noted in other political and rhetorical contexts and may even be further advanced through an extended communicative study of the topos of denial. In both cases, the issue of science denialism is deeply connected to the psychological, political/ideological, and moral bases for arguments justifying inaction. The topos of denial reveals that while an outright interpretative denial of credible scientific facts and evidence remain pertinent, a more complex and nuanced examination of the denialist discourses facilitates interpreting science denialism as a topos critical for didactic, suasive, and argumentative purposes of such discourses.

Conclusion

In this essay, I have highlighted the rhetoricality of science denialism in the covid-climate analogy by considering the context of complex and intersecting social, political, and ecological crises. I note the proliferating interdiscursivity in the scholarly, political and media communications that draw correlations between the two crises resulting in several notable shared metaphors and discursive techniques. By emphasizing its rhetorical exigence, I note that the analogy represents climate change as a cautionary tale and offers critical insight into contextual factors through which communicative challenges (and failures) of the pandemic are better interpreted and potentially countered. Additionally, I have considered the importance of the apocalyptic rhetoric for the discursive framing of the nature of the 'real crisis' as deeply connected to the denialism and disarticulations. In or-

der to elaborate further on this critique, I have considered the topic of 'the denial playbook' that has emerged as an argumentative scheme between the pandemic discourses and climate discourses, a *topos* for rhetorical topical intervention. The insights from the corona-climate analogy and the topic of science denialism or 'the denial playbook' can be instructive and must be further explored with regards the importance of political ideology but also of the behavioural and psychological dimensions of communicating scientific realities in the context of the present exigence – a challenge that will remain ongoing for the foreseeable future.

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Notes

i) In Perelman and Olbrechts-Tyteca's explication of analogies, the two elements or "terms" of an analogous pair are "phoros" (the better known) and the "theme" (the knowable); in argumentation theory, these terms of an analogy have been varyingly called "source case" and "target case" (Walton) or "premise" and "standpoint" (van

Eemeren). These terms can describe an analogy of things, people, groups, institutions, entities, processes, or state of affairs (see Ribeiro)

ii) For instance, the *American Bar Association* published an expert panel discussion titled "'*Flattening the curve'- Covid-19 and Climate Change"* that lists the numerous "uncanny similarities" between the two crises in order to draw lessons for scholars of legal studies to address their shared objective articulated through the metaphor. Similarly, in another scholarly article title "*Time to flatten the curves on COVID-19 and climate change. Marketing can help.*", authors Mende and Misra link the two crises to draw crucial lessons from the analogy for research at the interface between marketing and public policy.

iii) In its ancient Greek usage, the metaphor of crisis drawn initially from medical discourses, was applied to theological, and legal-political discourses with multiple possible meanings that may be summarized as follows: in medicine – as an observable condition of illness (a critical condition) as well as the crucial point in time to determine whether a patient will live or die (a critical moment); in theology it implied the already-present "apocalypse" even as the cosmic event(s) remains to unfold; and in law and politics as an "objective event" that announces a unique or recurring issue that inherently involves a transition (a crucial point that would tip the scale) and demands a decision or judgment by way of a "subjective critique". In its Latin usage, "crisis" was extended to the realms of social and political language to denote a transitional-temporal concept (as in a critical point in time) when an urgent decision needs to be made (Koselleck and Richter)

iv) Take as a small sample, the November 23 *CNN* headline "Our new normal, in pictures", the July 4th headline by *The Economist* "The new normal: Covid-19 is here to stay. The world is working out how to live with it", or the *Johns Hopkins Medicine's* (hopkinsmedicine.org) public information and guideline page titled "The New Normal and Coronavirus". A recent scholarly article titled "Choices for the New Normal" published in a reputed scientific journal, *JAMA*, frames the "new normal" not as a set of predictions but rather as choices that will/must reshape health care and society.

v) Marine biologist Daniel Pauly (1995) first coined the phrase "shifting baseline syndrome" describing the phenomenon of generational blindness towards nature and environmental degradation based on his research on generational perceptions of dwindling fish populations.

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