

H. Dan O’Hair and Mary John O’Hair (Eds.), **Communicating Science in Times of Crisis: COVID-19 Pandemic**, Hoboken, NJ: Wiley-Blackwell, 2021, 432 pp., \$73.95 (paperback).

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Of the many books aimed at understanding the breadth and complexity of COVID-19 messaging environments through the lens of traditional and contemporary theories of public health messaging now flooding publishers’ catalogs, **Communicating Science in Times of Crisis: COVID-19 Pandemic**, edited by H. Dan O’Hair and Mary John O’Hair, contributes to that effort chiefly through its careful and thorough collection of new and meaningful contemporary data. The useful interpretation of which, however, will be left to future authors.

Written by editors H. Dan O’Hair and Mary John O’Hair, chapter 1 serves as a primer for the rest of the book and examines the traditional elements of effective scientific communication theory, in general, and its applicability to both historical pandemics and COVID-19, in particular. It argues that data accuracy and the ability of scientific facts to effectively counter competing narratives remain viable strategies for communicators and “a beacon of light to see us through” (p. 14), however naïve that notion may appear in a messaging environment forever corrupted by the virus of political ideology.

Chapter 2 opens with the acknowledgment that contrarian viewpoints, conspiracy theories, and misinformation are normal components of pandemics throughout history and by no means are contemporary anomalies or historical exception. The difference, the authors note, that exists now is the ability of messages to ignore “the historical friction of distance” (p. 15).

The rest of the chapter traces the matrices of disinformation, charts distinctions between deceptive concepts and practices, and seeks to frame an overarching typology of dis- and misinformation tactics and the many forms they may take across spectra of platforms, authors, and intentions. The sheer volume of the chapter’s theoretical categorizations and conceptual frameworks put forward in charts, graphs, and figures is so ambitious, in fact, that they ultimately cheat their own purpose by further clouding what are already murky waters, and ultimately fail to penetrate the fundamental mystery of why these see-through tactics, so easily refuted and so obviously false, worked so frighteningly well.

Chapter 3 examines the role of mass anxiety and terror management theory (TMT) in the pandemic, speculating on whether and how much proximal and distal defenses contributed to the public’s evolving response to new information and developments. Authors Claude H. Miller and Haijing Ma also evaluate adaptive and maladaptive coping mechanisms during the pandemic, arriving at the (also incorrect) conclusion that maladaptive behaviors during the pandemic tied to TMT-related death anxiety explained a wide variety of counter-social beliefs and motivations.



While Miller and Ma successfully connected political and cultural worldviews to negative COVID-19 response behaviors, from refusing to wear masks in public to threats of physical violence against opponents, their explanations for that connection fell short. A too-eager reliance on TMT to account for the behaviors rather than recognizing them as well-known partisan political tactics ultimately prevented that connection from being made. In fact, it actually led the authors in the opposite direction, stretching TMT theory so far as to argue its importance not just in understanding specific maladaptive behaviors but as being able to explain racism and xenophobia in the United States in general.

Unfortunately, the only section of the book focused almost entirely on understanding the reasons behind the success enjoyed by campaigns of both subtle and absurd deception is also the shortest, for nowhere in the chockablock assortment of theories is the idea considered that it was not mere fear of death or a lack of intellectual sophistication that fueled vaccine opponents.

For whatever reasons, the possibility that antisocial behaviors could have been calculated actions of intelligent partisan actors executing a textbook wedge-issue campaign did not occur to the section's authors. Content to discount these actors' agency by labeling them victims, whether of trickery, bots, or information overload, they never approached the idea that complex political tactics had fundamentally shifted the field of play.

Section 2 shifts tonally and thematically, covering communication efforts dedicated to promoting health and well-being—public health's wheelhouse when it comes to traditional issue messaging. Chapter 4 covers systems theory, complexity theory, and how Risk Perception Attitude Frameworks (RPA) have been applied to messaging healthy behaviors. It applies a hierarchy of control strategies to COVID-19 hazards, discussing architectural and spatial solutions to healthcare facilities and hospital design but no solutions to COVID-19 message strategists besides "practical recommendations for effectively communicating science include knowing the audience so you can best tailor your message" (p. 88).

Chapter 5 is devoted to the relationship between identity and information overload in scientific messaging. Though written before the vaccine became available and therefore before the antisience movement hit the fever pitch it eventually would, the seeds of those ideas already were being sown, especially on social media, which is this chapter's concern. Using the idea of information overload and the dangers, both measured and speculated, of social media providing an ideal platform for such an overload, authors Jessica Wendorf Muhamad and Patrick Merle follow their hypothesis to its predictive conclusion that not only had and would social media be the prime battleground for competing ideas, the greatest danger of that fact was that the information overload produced could likely overwhelm "vulnerable individuals" (p. 115) or lead to false memories of what information was true and what was not.

In chapter 6, the connections between social media discourses and risk perceptions are explored, and author Kevin Wright speculates that anxiety about the many uncertainties could only produce negative outcomes, one of the most dangerous of which could be large-scale mental fatigue. The solution to that, Wright argues, is continued accurate framing of the issue and the robust use of the components of the Health Belief Model (HBM) to maximize prevention and engagement behaviors and the use of media richness theory (MRT) to maximize those message's exposure to populations, and, therefore, the likelihood of their success. Chapter

7 concerns the nature of collective action problems and the obstacles they present that must be overcome; specifically, a general distrust of science in modern culture, a fundamental apathy toward the plight of large populations in other countries that atrophies into resistance once those problems hit home, and preexisting cognitive biases against populations of scale. The authors argue that the best solution to these issues regarding COVID-19 is the careful practice of repeated appeals to compassion, narrative storytelling, and moral reframing of the issue.

Chapter 8 is exclusively devoted to communicating the science of COVID-19 to children, and is a recap of preexisting literature with no new ideas to communicate about COVID-19. The final chapter of the section discusses the rise in the use of telehealth during COVID-19 and examines in detail the pros and cons learned to distill best practices.

The third section examines how to advance models of information and media usage in a postpandemic world. Chapter 10 tackles this task by focusing on crisis planning and how understanding the life cycle of pandemic crises can aid future planners and scholars. It urges collaboration across public health networks as the best means of combating misinformation, and argues most strongly that in the future, planning the deployment of these networks early and effectively is the best countermeasure to the development of oppositional behaviors and midcrisis vulnerabilities.

Chapters 11 and 12 concern studies about emotional perspectives in times of crisis, using critical reflection models, and how social media was used to handle misinformation and the oppositional communities those engagements created. Both studies lean heavily on data focusing on preference, opinions, and self-reports that, while useful, offer limited probative value to crisis messengers. The data is simply not rich enough to create value.

Chapter 13 turns toward a review of historical experience communicating inoculations, recognizing that this issue is a primary challenge to current and future pandemic behaviors. Over the final four pages of the chapter where the authors tackle head-on their solutions to overcome vaccine hesitancy, their consensus is that accurate inoculation messages "have shown efficacy in neutralizing the effect of false information" (p. 312).

The final section's four chapters concern examinations of leadership models during COVID-19, effective communications with policy makers, presidential influence and credibility, and messaging death and dying. These short, data-heavy chapters mostly avoid drawing deep or forward-looking conclusions, instead indulging in hat-tipping to previous attempts to explain the phenomenon of resistance (information overload), in terms that in today's woke culture read dangerously like classism and consistently emphasizing the need to control the narrative. Together they offer little to the leadership scholar, the crisis manager, or the student of the COVID-19 message war where so much that was so important was lost.

For all the theoretical conjecture about conspiratorial motivations, anxiety and terror theory, fake news narratives, and diffusion research, no approach within the book's 432 pages even speculated that during COVID-19 science's greatest strengths—truth, logic, rigor, and impartiality—became liabilities, pawns in a zero-sum game and victims of a politicized message environment from which it could not escape and whose nature it never understood.