

Foreword for: *Utilizing Effective Risk Communication in COVID-19:*

Highlighting the BRCT

FOREWORD

Acting out of “an abundance of caution” is a phrase that we hear with increasing frequency these days, and issues of health and “risk” of getting ill have been on almost every adult human mind over the course of the Covid-19 pandemic in 2020 and 2021. And so, the topic of “risk communication” should certainly no longer be viewed as outside of anyone’s personal interest. Who gets to define what level of caution is “abundant” for your own health, and on what basis?

For the “general public,” the most interesting topics for reading and discussion (outside of sports and entertainment) are often matters of personal health and wellness, economic well-being, and societal history, culture, and politics. And in fact, these topics are exactly those addressed by this, because all deeply involve risk and benefit – that is, the highly uncertain trade-offs that exist among different courses of action, each of which has its own set of potential harms and benefits. More specifically, this book concisely describes, in clear everyday language, how poor communication about risks and benefits can affect all of us, and perhaps never so intensely as in recent times, when risks from COVID-19 dominated not only the news but also our daily lives.

Importantly, the authors describe – and apply within the COVID pandemic context – a unique graphic communication tool that the authors have been championing for over fifteen years. This tool – the *Benefit/Risk Characterization Theater*, or *BRCT* – is a simple and visually appealing graphic approach to communication of risks and benefits that can quickly be appreciated and understood.

This monograph is the third in a series of books. The first of these was a collaboration between Erik Rifkin, PhD, and Professor Edward Bouwer, PhD, an outstanding environmental engineering and science professor at Johns Hopkins University, with whom I had the honor and pleasure of working for over 27 years, until his sad and untimely death in 2019. That book, very aptly titled *The Illusion of Certainty* introduced the basics of risk assessment and reframed the risk communication debate through development of the “Risk Characterization Theater,” which the authors adeptly applied to discussion of eleven different human and environmental health case studies, ranging from “VioxTM and Heart Attacks” to “Chromium and Sediment Toxicity.” Risk assessment and management are concepts that are of central importance in environmental engineering and science and are topics that many of us cover in our own teaching. The 2007 publication of Erik and Ed’s book was thus an important contribution to our profession, and one that I found personally valuable.

The second book in this series, *Interpreting Health Benefits and Risks* was published as a “a practical guide to facilitate doctor-patient communication” and was Erik’s first collaboration with Dr. Andrew (Andy) Lazris, MD, an Internal Medicine Specialist in Columbia, Maryland. Andy has over three decades of experience in the medical field and, as Erik’s personal physician, was the perfect partner for relating the BRCT tool more directly to doctor-patient communications. Andy has personal interests in improving the doctor-patient experience and especially the communication of information toward improving the process of shared decision-making.

And now this (third) book is a very timely and important addition that specifically considers the value and applicability of the BRCT graphic tool in the context of the COVID-19 pandemic and, importantly, offers a “path forward” toward offering improved means of communicating the most salient issues to the public. This tool can be the foundation for a new approach to risk communication.

If widely adopted, the BCRT can enable involved professionals and the public (whether in the U.S. or internationally) to better understand and discuss actual risks and benefits (to the extent they are known). Importantly, the proposed graphic approach is equally applicable toward visualizing and understanding any known statistical odds of benefitting from a precautionary or prophylactic measure (such as mask wearing or vaccination) as it is with visualizing the statistics of that measure’s risk. Both can be understood using the same presentation approach, which is one intimately familiar to most readers – occupied vs unoccupied seats within a theater or stadium. The beauty of the approach is in its familiarity, simplicity (direct relation to actual “odds” of harm or benefit), its uniformity, and its complete objectivity.

This book accomplishes three objectives in three “Parts”:

- (1) Part 1 briefly summarizes the basic premises of the BRCT approach, importantly including its emphasis on *actual* (“absolute”) risk as opposed to the much less useful *comparative* (“relative”) risks that are so widely reported in drug advertisements and by news media.
- (2) Part 2 provides access to a new set of electronic video materials that demonstrate how the BRCT can be used both to (a) improve medical communication between doctor and patient, and (b) improve conveyance of information about health issues and policy to the public.
- (3) Part 3 comprises the last two-thirds of the book. Here, the authors have courageously presented their own assessment of how well (or poorly) U.S. government agencies, the printed press, and broadcast media did (through mid-2020) in communicating to the public about what they knew and did not know about the risks of Covid-19 and the benefits of protective measures. The authors have not been shy in pointing out how the messaging was incomplete and confusing. And although they are subjective in how they seem to “judge” policy decisions made in the absence of solid information, they do so in a way that should stimulate some excellent discussions. Importantly, they poignantly show the difficulties of policymaking in the *absence* of information and argue for better transparency with the public about the uncertainties. In this regard, they note that the BRCT approach can be used to very clearly and objectively illustrate where uncertainty exists by simply placing a giant question mark over the entire graphic. (Clearly this does not inform the best final decision, but it does effectively convey uncertainty.)

In short, the first two parts of this book offer a quick read, with well-summarized information about an important new graphical tool (the BRCT), while the final part provides a very poignant and interesting discussion of risk communication during Covid-19. The fact is that one need not agree with the authors’ conclusions about policymaking (i.e., in the absence of information) to appreciate that better understanding of true risks and better communication of these could go a long way toward improved risk management in the future. Overall, Part 3 serves well to support what I think is the main point of the book: Better risk management requires not only better risk research (so that *actual* risks are known)

but also better risk communication, particularly through a graphic (language-free) approach that presents the most relevant information (*absolute* risk) in a manner that is *uniform, consistent, easily understood, and objective*. The BRCT offers such an approach, and the Covid-19 pandemic has made it abundantly clear as to just how badly it is needed.

William P. Ball, Ph.D.

Emeritus Professor of Environmental Engineering

Johns Hopkins University