Handbooks in Communication and Media

This series aims to provide theoretically ambitious but accessible volumes devoted to the major fields and subfields within communication and media studies. Each volume sets out to ground and orientate the student through a broad range of specially commissioned chapters, while also providing the more experienced scholar and teacher with a convenient and comprehensive overview of the latest trends and critical directions.

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The Handbook of Organizational Rhetoric and Communication, edited by Øyvind Ihlen and Robert L. Heath
The Handbook of Applied Communication Research, edited by H. Dan O'Hair and Mary John O'Hair
## Contents

List of Contributors ix

The Promise of Applied Communication Research 1

*H. Dan O’Hair, Mary John O’Hair, Erin B. Hester, and Sarah Geegan*

### Part I Theoretical Perspectives 11

1. Inoculation Theory as a Strategic Tool 13
   *Bobi Ivanov, Kimberly A. Parker, and Lindsay Dillingham*

2. Addressing Life Transitions of Aging: Integrating Indigenous and Communication Theory to Develop a Tuakana-Teina/Peer Educator Model 29
   *John G. Oetzel, Brendan Hokowhitu, Mary Simpson, Sophie Nock, and Rangimahora Reddy*

3. Connecting Attitudes and Motivating Behavior: Vested Interest Theory 47
   *Bradley J. Adame*

4. A Comparative Analysis of Theoretical Propositions Focusing on Apologia 63
   *Michel M. Haigh*

5. Applying Social Marketing Strategy to Social Change Campaigns 75
   *Kimberly A. Parker, Sarah Geegan, and Bobi Ivanov*

6. Engaged Communication Scholarship: The Challenge to Translate Communication Research into Practice 93
   *Gary L. Kreps*

7. The Role of Negative Emotions in Applied Communication Research 103
   *Elena Bessarabova, John A. Banas, and Daniel R. Bernard*

### Part II Media, Data, Design, and Technology 123

8. Adventures in “Big Data” Application in Strategic Applied Communication Research, Theory, and Method 125
   *Yi Grace Ji and Don W. Stacks*

9. Serious Games as Communicative Tools for Attitudinal and Behavioral Change 141
   *Jessica Wendorf Muhammad and Soyoon Kim*
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Leveraging Social Media for Applied Problems: Case Studies in Mapping Cyberspace to Realspace</td>
<td>Brian H. Spitzberg, Ming-Hsiang Tsou, and Chin-Te Jung</td>
<td>163</td>
</tr>
<tr>
<td>12</td>
<td>Enhancing Public Resistance to “Fake News”: A Review of the Problem and Strategic Solutions</td>
<td>Marcus W. Mayorga, Erin B. Hester, Emily Helsel, Bobi Ivanov, Timothy L. Sellnow, Paul Slovic, William J. Burns, and Dale Frakes</td>
<td>197</td>
</tr>
<tr>
<td>13</td>
<td>Data Visualization for Health and Risk Communication</td>
<td>Fan Yang</td>
<td>213</td>
</tr>
<tr>
<td>14</td>
<td>Visual Communication as Knowledge Management in Design Thinking</td>
<td>Beth S. Rous and John B. Nash</td>
<td>233</td>
</tr>
<tr>
<td></td>
<td><strong>Part III Organizational Communication</strong></td>
<td></td>
<td>249</td>
</tr>
<tr>
<td>15</td>
<td>Communication Technology and Organizational Life</td>
<td>Keri K. Stephens and Courtney J. Powers</td>
<td>251</td>
</tr>
<tr>
<td>17</td>
<td>The Intersections of Organizations, Health, and Safety: Designing Communication for High Reliability Organizations</td>
<td>Tyler R. Harrison, Elizabeth A. Williams, and Ashley R. Reynolds</td>
<td>279</td>
</tr>
<tr>
<td>18</td>
<td>Anticipatory Model of Crisis Management and Crisis Communication Center (CCC): The Need to Transfer New Knowledge to Resources</td>
<td>Bolanle A. Olaniran and Juliann C. Scholl</td>
<td>297</td>
</tr>
<tr>
<td>19</td>
<td>Communication Challenges of Volunteers</td>
<td>Michael W. Kramer and Laurie K. Lewis</td>
<td>313</td>
</tr>
<tr>
<td>20</td>
<td>Towel Cards Revisited: The Environmental Communication of Green Hotels</td>
<td>Finn Frandsen and Winni Johansen</td>
<td>327</td>
</tr>
<tr>
<td></td>
<td><strong>Part IV Risk and Crisis Communication</strong></td>
<td></td>
<td>343</td>
</tr>
<tr>
<td>22</td>
<td>Visual Framing of Conflict and Terrorism in the MENA Region</td>
<td>Michael D. Bruce</td>
<td>363</td>
</tr>
<tr>
<td>24</td>
<td>Evolving Coverage of Risk in the Mass and Social Media</td>
<td>Sharon M. Friedman and Jeannette Sutton</td>
<td>397</td>
</tr>
<tr>
<td>Chapter</td>
<td>Title</td>
<td>Authors</td>
<td>Page</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td>25.</td>
<td>Terror Management Theory Perspectives on Applied Communication Research</td>
<td>Claude H. Miller and Zachary B. Massey</td>
<td>417</td>
</tr>
<tr>
<td>26.</td>
<td>The Consequences of Risk Amplification in the Evolution of Warning Messages during Slow-Moving Crises: Hurricane Irma as a Case Study</td>
<td>Deborah D. Sellnow-Richmond and Timothy L. Sellnow</td>
<td>443</td>
</tr>
<tr>
<td>27.</td>
<td>Psychological Reactance and Persuasive Message Design</td>
<td>Claude H. Miller, Zachary B. Massey, and Haijing Ma</td>
<td>457</td>
</tr>
</tbody>
</table>
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The Promise of Applied Communication Research

H. Dan O’Hair, Mary John O’Hair, Erin B. Hester, and Sarah Geegan

Applied communication research (ACR) is a very special endeavor and it brings to bear all of the elements we value in the discovery process, while at the same time, it is focused squarely on addressing real-world problems. Represented in this two-volume book are a number of different contexts, methodologies, and theories—we value the rich heterogeneity by which participating scholars have made their contributions. In this introductory chapter, we offer some opinions on the nature of ACR and continue to argue, as we have done previously, that pursuing this type of exploration is a noble enterprise. We speculate on several of the ways that investigators and scholars approach the work of ACR, and we highlight two processes that we feel can enrich and extend the findings of applied research: (a) citizen science and (b) entrepreneurship. We conclude this first chapter by providing an overview of the chapters in Volume 1—chapters that constitute a wonderful assemblage of what is possible in the field of ACR. It is these chapters, and those in Volume 2, that support our claim of promises that only ACR can keep.

Viewpoints

In some ways, ACR is basically a convenient term for problem-based research. Many scholars in communication have interests in issues toward problem-based research, action research, critical research, and social justice research. Terms frequently associated with applied research include approaches that are socially relevant, “scholarship that can make a difference” (Kreps, Frey, & O’Hair, 1991, p. 71) or research that is driven by “meaningful inquiry” (Plax, 1991, p. 59). O’Hair and Kreps (1990) argue that “applied researchers provide opportunities for the testing of basic theories in applied contexts....” (p. ix). Our primary assumption resides in the argument that basic and applied communication research are, and should be, interdependent. Applied research brings into use theory and methodology in order to understand how communication can solve problems. Basic research leverages applied research to offer practical accountability of the work (O’Hair, Ploeger, & Moore, 2010).

It is important to remember Kurt Lewin’s famous statement: There is nothing more practical than a good theory. In a complementary fashion, Kreps et al. (1991) have argued that there is nothing more theoretical than good practice. Theory and practice are mutually informing and recursive practices. Julia Wood (2000, p. 189) appropriately argued that, “applied communication
research is not bounded by domain. Its nature cannot be demarcated usefully by context. What
defines and distinguishes ACR is its insistence on putting theory and research into the service of
practice, and equally, of studying practices to refine theory in order to gain new understandings of
how communication functions and how it might function differently, or better.” ACR can provide
a real-world test of the predictive validity of communication theory (O’Hair et al., 2010).

To provide additional context for where ACR has been situated in the recent past, we discuss
an article by Steimel (2014), who conducted a four-decade analysis of the topics appearing in the
flagship ACR journal in the field, The Journal of Applied Communication Research (JACR).
Although organizational and health were consistent themes across the four decades, Steimel did
find studies in subsequent decades that were addressing “contemporary communication issues
of social concern” (p. 3). And while her focus was on analyses of different decades of published
articles in JACR, her final conclusion was more encompassing:

Across the decades, JACR research prominently features concepts … that align closely with many of
the National Communication Association’s largest interest group divisions. However, the research
within those concepts has evolved over the four decades not only to reflect the social issues of rele-
vance at any given time, but also to embrace increasingly diverse and complex communication rela-
tionships (for example between individuals and organizations). The future challenges (and
opportunities) of applied communication research center around continuing to embrace diverse
voices, contexts, and methodologies while foregrounding theory as both a tool and outcome of
applied research. (p. 32)

Other social science disciplines have developed robust portfolios of applied research and in very
few cases have these disciplines of study withdrawn from the challenge of pressing social and
economic issues confronting society. ACR and its very capable scholars can be found investigating
some of the most serious conditions and circumstances that confront us. While we would not
argue that ACR is preeminent or more important than other social science disciplines’ work in
applied contexts, we would be so bold as to offer evidence that the work of our scholars in applied
contexts is as meaningful as the other disciplines and certainly as substantial as ever before.

**An Eclectic Perspective on ACR**

What has been learned over the past 50 years, and that which is prominently highlighted by the
contributions to this two-volume set, is that it is inaccurate and even inappropriate to pigeon-
hole research styles of those pursuing ACR. We could point to a few exemplars of prominent and
consistent forms of scholarship, and will do so in the next section, but generally characterizing a
researcher’s tendencies is probably a risky gesture. One thing seems certain: ACR can be success-
fully conducted from a number of different perspectives (Kreps et al., 1991; Wood, 2000). One
such perspective comes from peering into the purpose and/or context for study. In some cases,
a research team typically does not conduct ACR but finds themselves in a situation where the
only fruitful approach is one that is applied in nature (solving a problem). The research team in
this regard may return to ACR from time to time (e.g., being asked to play a role on a grant that
is wholly applied) but their primary purpose is to conduct basic research. A second type takes the
opposite approach where the researcher and/or context are predominantly in the ACR domain.
These are scholars who would rarely consider a research project that did not have a practical
problem or challenge directly in sight. Those pursuing this applied paradigm see research as a
practical endeavor, although this is not to imply that they are always pursuing the same problem.
Rather, they may venture into various venues in search of solving different and interesting prob-
lems (e.g., sunscreen, water quality, hurricane warnings). Their predilection for and skills in the
applied research arena seem compatible with numerous challenges facing people.
Still another way in which researchers view their role in ACR is that of studying a persistent problem. Cancer control scholars, climate change researchers, those studying various challenges of sexual harassment, and even classroom communication experts find a home in a specific context and enjoy applying communication theory in ever more nuanced ways. A more in situ perspective describes ACR that studies a specific setting such as a particular locale (New York), regions (Appalachian Mountains), countries (Palestine), or even otherworldly settings such the International Space Station. It is these investigators who become experts in the place of study and can bring to bear rich backgrounds for their studies. Still other investigators are skilled theoreticians and/or methodologists who are often sought after to join ACR teams. These scholars find these opportunities worthwhile for a number of reasons, not the least of which is the prospect to work with different people, the chance to apply the knowledge and skills that they have been building for some time, or even the opportunity to watch firsthand how basic theory and methods can be brought to bear in practical settings. Of course, for many, ACR reflects a blended type where problem, place, or space are not necessarily primary pursuits but conducting ACR is employed to sharpen research skills, have fun, work with interesting people, and make a difference in the world.

Applied Communication Research—Practice

Collections of studies and programs of research represented in this two-volume set on ACR take large steps toward improving economic development, changing lives for the better, and protecting people and property from risks and crises. ACR serves as a means that allows other processes to engage where the research can be used in actual practice. In the following sections we will discuss citizen science and entrepreneurship as promising opportunities to move ACR into action stages.

Citizen Science

*Public Participation in Scientific Research* is a term advanced by Bonney et al. (2009) and Shirk et al. (2012) which examines a host of participatory research approaches, including citizen science, participatory action research, crowdsourcing, and community-based research (Eitzel et al., 2017). According to Hecker and colleagues, “[t]he long tradition of volunteer engagement in science has taken a big leap forward over the past two decades. Varied approaches of public engagement in science, public understanding of science, crowdsourcing, and community science have come together under the umbrella of citizen science. The result is a growing, global, citizen science community devoted to working together to bridge the science-society-policy interface” (Hecker et al., 2018). Even the popular press such as the AARP Bulletin and PBS have featured stories on citizen science (Greenberg, 2019).

Research projects involving citizen scientists are varied and their numbers seem to be growing. Some examples of recent projects worthy of mention are marine conservation by fishers, dozens of water quality projects, tropical forest crimes, monitoring caterpillars, patients as citizen scientists, and numerous projects supporting public health. Bonney, Cooper, and Ballard were early champions of citizen science and even helped to establish the journal *Citizen Science: Theory and Practice*. According to them, “… through its many configurations of science-society partnerships, citizen science holds the potential for developing new ways to collectively solve big problems and to fundamentally change the relationship between science and society” (Bonney, Cooper, & Ballard, 2016, p. 1). Citizen science research projects are appealing because they have shown the potential to collect large data sets of field data less expensively and in a shorter amount of time (Gura, 2013).
Perhaps one of the largest challenges of citizen science is quality control (Greenberg, 2019; Gura, 2013). Even if the method and procedures are strictly held to the highest scientific standards, the data collected by citizen volunteers can be questioned. That is one reason that the United States Environmental Protection Agency (2019) developed a citizen science quality assurance tool entitled the *Handbook for Citizen Science: Quality Assurance and Documentation*. Contained within the *Handbook* are instructions, descriptions, and templates that chart the procedures necessary for producing a project that can stand up to most scientists’ and policy makers’ scrutiny. This is a positive step in reinforcing the significance and value of citizen science. There is so much at stake in promoting this type of applied research, including good data collected in an ecologically valid manner (locally), citizenry involvement in research, and a real chance to influence public policy.

Entrepreneurship

A different opportunity to extend the reach of ACR lies in the realm of entrepreneurship. Research-based entrepreneurship is enjoying a great deal of attention, but it involves a lot of work that many researchers are not used to doing. While imagination, intelligence, and tenacity can transform a great idea into a thriving business or a global enterprise, entrepreneurial success is a function of many factors—such as adequate financing, a good support structure, and of course, favorable timing. However, in the churning world of small business, firms come and go as quickly as the Greek God of opportunity, Kairos, whose ephemeral presence offers a fleeting chance of success to those prepared to grasp it. There are many obstacles thinning the ranks of would-be entrepreneurs, but self-imposed unrealized potential—a business that never gets started because the would-be entrepreneur did not act on his or her idea—is the most insidious. While research confirms what common sense suggests, that the intellectual prowess found at the nation’s universities has tremendous innovation and commercialization potential (Kim & Marschke, 2007), there is also a strong sense that much of this potential goes unrealized. What Thomas Edison famously said decades ago is equally true today, “the value of an idea lies in the using of it.” As many before us have noted, serious concerns have been raised about the ability or willingness of American research universities to push their research findings out into the marketplace. Underlying efforts to effectively advance entrepreneurship and innovation practices is engaging partners in the various forms of communication, whether represented by interpersonal, group, or organization dynamics. Research focusing on communication practices is especially ripe for application in entrepreneurship contexts.

In September 2009, President Obama released his national innovation strategy; at the center of this initiative were two closely related goals—sustaining economic growth and creating quality jobs. Intrinsic to this strategy is capitalizing on basic research at US research universities and the ensuing commercialization of research discoveries. Unfortunately, the commercialization of university research is a persistent challenge often referred to as “the valley of death.” By their very nature, university researchers are most talented in seeking answers to questions that are not necessarily practical or suitable for the end user. This “valley” that prevents viable research discoveries from reaching consumers, patients, and businesses costs the US economy billions of dollars in unrealized economic valuation.

To address these challenges, the National Science Foundation’s (NSF) Innovation Corps (I-Corps) has been put into place and is intended to extend the research of researchers and scientists into practical, and hopefully profitable, endeavors. NSF-funded researchers learn to identify valuable opportunities that can develop from university research projects, and at the same time, acquire entrepreneurial skills. NSF created I-Corps to train researchers and students in innovation and entrepreneurship skills, to encourage collaboration between academia and industry, and to stimulate the translation of fundamental research to the marketplace. NSF seeks to strengthen a national innovation ecosystem that helps foster innovation among faculty and students, promotes regional coordination and linkages, and develops networks to address
pressing societal challenges and economic opportunities for the nation. The I-Corps Program helps to ensure that participants gain an understanding of how to (a) identify and develop promising ideas that can generate value, (b) create and implement tools and resources that boost innovation capacity, and (c) develop innovation practices that can be passed along to others (especially students).

Social entrepreneurship is an enterprise that seeks to address social and/or community issues through innovation. Sometimes associated with nonprofit entrepreneurship, social entrepreneurship can lead to financial outcomes such as economic growth and jobs creation. Moreover, social entrepreneurship can instill idealism among students about innovation and entrepreneurship that leads to outcomes beyond financial returns.

Social entrepreneurs will play a central role in corresponding to the challenges of the modern world, and we believe their presence will vastly increase the impact research universities have in addressing these problems. Aside from this lofty vision of the social entrepreneurs’ new role, there are practical reasons why embracing social entrepreneurship makes sense for a research university. (Thorpe & Goldstein, 2010, p. 63)

Regardless of purpose or motivation, entrepreneurship is a logical extension of ACR. Its value is multifaceted and can play a key role in extending the shelf life of an ACR project or program of research. In important ways, entrepreneurship lengthens the chain of the discovery process.

**Goal of the Book**

A set of guidelines recently used in a separate volume (O’Hair, 2018) was adapted for the *Handbook*. Authors were asked to consider a set of strategies for conceptualizing and organizing chapter contents. In general, authors were asked to address the following issues in their chapters.

- What is the best available research in applied communication?
- What communication and media theories are most relevant and applicable in this context?
- What new ideas do you have to offer in this area (framework, model, theory)?
- What are specific research directions that should be pursued for this context of ACR?
- What pragmatic implications can you offer practitioners in this area of applied communication?

**Contents of Volume 1**

Twenty-seven chapters constitute the contents of Volume 1. Divided into four sections, the chapters are generally associated with one another around a common theme. Volume 1 includes the follow themes: (Part I) Theoretical Perspectives; (Part II) Media, Data, Design, and Technology; (Part III) Organizational Communication, and (Part IV) Risk and Crisis Communication. Table I.1 provides a more detailed examination of Volume 1’s content, including descriptions, research approaches, and advances and implications of the chapters.

The promise of ACR has never offered more possibilities for positive change in the human condition. The work contained in these volumes is a testament to the identification of problems and challenges, some of which are only emerging on the horizon of scholarly endeavor. The promise of ACR is real.

**Preview of Volume 2**

Volume 2 is organized in a similar fashion with a tabular format described in the section above. Before that, we offer an opportunity for those involved in the university research process, where the preponderance of research is supported and disseminated—the opportunity is engaged
<table>
<thead>
<tr>
<th>Theoretical Perspectives</th>
<th>Description</th>
<th>Research approaches</th>
<th>Advances and implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inoculation</td>
<td>Inoculation messages are effective in protecting, establishing, and changing attitudes—superior to one-sided across many persuasive contexts</td>
<td>Formative research for message design and tailoring</td>
<td>First amendment, recruit/retain minority students in IT field, misinformation, cross-cultural. Unexplored: driverless cars, space travel</td>
</tr>
<tr>
<td>Indigenous</td>
<td>Indigenous theory, community-led to address aging/elderly populations that transform discourse from emphasizing dependency, weakness, limitations to independence and self-determination</td>
<td>Community-based participatory research (CBPR), build on experience, peer educator and support interventions, culture-centered approach, narrative, shared culture social support derived from experience</td>
<td>Health interventions, stewards of cultural integrity, cultural sensitivity to combat ethnocentric approaches, empowering community members, build trust and long-term relationships, benefit to the community is ultimate success</td>
</tr>
<tr>
<td>Vested Interest Theory</td>
<td>Motivating attitudinally consistent behavior with personal impact or stake</td>
<td>Formative research to design messages, predict risk perceptions, refined scales</td>
<td>Natural hazards, flood risk, earthquakes, wearing seatbelts, concussion risk among college athletes, need for manipulating perceived vestedness</td>
</tr>
<tr>
<td>Apologia</td>
<td>Theory of image restoration and situational crisis communication theory in apologia</td>
<td>Qualitative for image repair, experimental for situational crisis communication theory, reputation, strategies, medium</td>
<td>Medium impacts credibility, trust, balance between the two to apply proactive strategies to crisis</td>
</tr>
<tr>
<td>Social Marketing</td>
<td>Social marketing for sustainable social change (health promotion, environment, safety, and injury prevention)</td>
<td>Systematic process, strategic roadmap design, audience segmentation, tailored to audience needs, goals, marketing mix (4 Ps)</td>
<td>Audience-centered approach to designing compelling campaigns, converges traditional marketing with practical application</td>
</tr>
<tr>
<td>Engaged Communication Scholarship</td>
<td>Problem-based, social issues</td>
<td>Community participative research and intervention programs, interdisciplinary, multimodal</td>
<td>Informs public health policy, demystifying complexities, multiple communication channels, longitudinal, disseminating</td>
</tr>
<tr>
<td>Negative Emotions</td>
<td>Anger, fear, and guilt as distinct behavioral tendencies</td>
<td>Cognitive functioning model, appraisal-tendency framework, psychological reactance, extended parallel process model</td>
<td>Information processing, persuasion, risk perception, empathy, receiver characteristics, motivating, efficacy, interplay of emotion</td>
</tr>
<tr>
<td>Media, Data, Design, and Technology</td>
<td>Description</td>
<td>Research approaches</td>
<td>Advances and implications</td>
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<tr>
<td>-----------------------------------</td>
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<tr>
<td><strong>Big Data</strong>&lt;br&gt; (Ji &amp; Stacks)</td>
<td>Predictive messaging strategies, assess textual communication, analyze large data sets in seconds</td>
<td>Artificial intelligence, algorithms, continuous data collection, streaming and storage, machine coding</td>
<td>Understand, predict, solve, interconnectedness with social media, eWOM (electronic word of mouth)</td>
</tr>
<tr>
<td><strong>Serious Games</strong>&lt;br&gt; (Muhamad &amp; Kim)</td>
<td>Immersive experience, problem solving, incidental learning</td>
<td>Role-taking, role-playing, active, experiential, digital gaming interventions, participatory paradigm</td>
<td>Humanize data, autonomy, homophily, transportation, identification, competence, social relatedness, debriefing</td>
</tr>
<tr>
<td><strong>Cyberspace</strong>&lt;br&gt; (Spitzberg, Tsou, &amp; Jung)</td>
<td>Geographic information science, computational linguistics, public health</td>
<td>Volume, velocity, variety, variability, visualization, veracity, value, machine learning, Twitter, SMART Dashboard</td>
<td>Analyze social media analytics, industry or market analytics, disease surveillance, disease response, boundless</td>
</tr>
<tr>
<td><strong>Entertainment Marketing</strong>&lt;br&gt; (Crosswell &amp; Sanders)</td>
<td>Direct, individualized, borderless communication, example of <em>Modern Family</em> sitcom, viewer perception of entertainment content and advertising</td>
<td>Social cognitive theory, product placement, parasocial interactions, product–character associations, storylines, content analysis, eye tracking experiment</td>
<td>Visual attention, character favoritism, perceptions of branded content, product integration, interpersonal aspects of entertainment marketing</td>
</tr>
<tr>
<td><strong>Fake News</strong>&lt;br&gt; (Mayorga, Hester, Helset, Ivanov, Sellnow, Slove, Burns, &amp; Frakes)</td>
<td>Inoculation as strategy to counter negative effects of fake news and attitude polarization, intent to deceive, accuracy</td>
<td>Public susceptibility, confirmation bias, algorithm changes, credibility assessment, inoculation can protect (three studies to date)</td>
<td>Climate change, health care, wealth distribution, national security, cynicism, extremism, stop spread of fake news</td>
</tr>
<tr>
<td><strong>Visualization</strong>&lt;br&gt; (Yang)</td>
<td>Communicating health and science information</td>
<td>Present encoded quantitative data, graphical display, icon arrays, message perception, comprehension, interactive data visualization, fear appeals, fuzzy trace theory</td>
<td>Appealing visual presentations to increase public understanding, facilitate decision making, behavior change</td>
</tr>
<tr>
<td><strong>Design Thinking</strong>&lt;br&gt; (Rous &amp; Nash)</td>
<td>Participatory design, design thinking cycle, solution-oriented approach, building empathy</td>
<td>Needfinding, brainstorming, prototyping, testing and feedback</td>
<td>Knowledge management, organization initiatives, knowledge visualization, interactivity, creativity, novelty</td>
</tr>
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*(Continued)*
<table>
<thead>
<tr>
<th>Organizational Communication</th>
<th>Description</th>
<th>Research approaches</th>
<th>Advances and implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Technology</td>
<td>Managerial technology use, organizational translucency, access vs. purpose, affordances</td>
<td>Big data, data-handling, human resource information systems, enterprise, visibility</td>
<td>Hiring, cyberslacking and productivity, social connectedness, habitual checking, civility, acceptability, meetings</td>
</tr>
<tr>
<td>Brand Identity</td>
<td>Influencers drive corporate branding</td>
<td>Voice of the consumer, eWOM, social media content analysis, network connectivity, diffusion of innovations</td>
<td>Connectedness, knowledgeable, innovativeness, persuasiveness, precisely identify Maxcers, use for insights about brand coordination</td>
</tr>
<tr>
<td>Designing for High Reliability Organizations</td>
<td>Consistently operate in uncertain conditions, organizing processes that makes an organization reliably safe</td>
<td>Communication as design works as an experiential intervention, deference to expertise, useful, functional, essential perspective, critical changes</td>
<td>Culture fosters confrontation and negativism, power, identity, resilience, teamwork, collaboration, credibility, social capital, production quality</td>
</tr>
<tr>
<td>Crisis Communication Centers</td>
<td>Community-based site as intermediary organization to assist in crises, organizational misconducts, natural disasters</td>
<td>Anticipatory model, vigilance of technology, planning and prevention, research translation, knowledge-to-action (K2A)</td>
<td>Empowerment, communities have control in crises, respond appropriately, protect community, institutionalization</td>
</tr>
<tr>
<td>Volunteers</td>
<td>Negotiate, navigate, complex roles and boundaries, credibility, professionalism, power</td>
<td>Altruistic, prosocial and self-serving motivation, self-determination theory, social exchange theory</td>
<td>Satisfaction, enrichment for community and self, reward/risk, recruiting and retaining and dialectical tensions, reducing unmet expectations, commitment, balance</td>
</tr>
<tr>
<td>Towel Cards</td>
<td>Environmental communication in hotel/travel industry to implement sustainable practices</td>
<td>Social influence theory, attribution theory, genre analysis, discourse community, move structure, visual and verbal rhetoric strategies, politeness, social-psychological mechanisms</td>
<td>Symbolic visual representations, audience reception analysis, encouragement, environmental protection, social responsibility, environmental cooperation, benefits to the hotel</td>
</tr>
</tbody>
</table>

Table I.1 (Continued)
<table>
<thead>
<tr>
<th><strong>Risk and Crisis Communication</strong></th>
<th><strong>Description</strong></th>
<th><strong>Research approaches</strong></th>
<th><strong>Advances and implications</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discourse of Renewal</strong></td>
<td>Shift from post-crisis apologia to pre-crisis planning, <em>prospective vision</em>, alternative to image repair, promotes effective, ethical communication and organization learning, “reservoir of goodwill”</td>
<td>Exclusively qualitative, but new advances with quantitative and scale development for digital media platforms</td>
<td>Vicarious learning, transparent ethical communication, gain trust, rebuilding organizational rhetoric, recovery</td>
</tr>
<tr>
<td><strong>Terrorism</strong></td>
<td>Diffusion and influence of technology, unrestricted flow of visual content, visual framing to promote interpretation of event</td>
<td>Structural features of television/film messages, “videostyle,” content and structural analysis methods</td>
<td>Visuals elicit emotional impact more than words, tell a story, sensationalism, political cultural implications of visual conflict coverage, provoke empathy, moral/just framing with images</td>
</tr>
<tr>
<td><strong>Best Practices</strong></td>
<td>Best practice in environmental contamination crises, risk inspires crisis planning, uncertainty, ambiguity</td>
<td>Case study examination</td>
<td>Lessons learned, tailoring messages to provide instruction, acknowledge vulnerable publics, strategic planning, greater concern for recovery of stakeholders over reputation, resilience, goodwill</td>
</tr>
<tr>
<td><strong>Media Coverage</strong></td>
<td>Evolution of mass media risk coverage, audience attention and participation/engagement in technologies</td>
<td>Agenda setting, gatekeeping, social amplification of risk framework, social media to collect, curate, and communicate info, geographic reach</td>
<td>Impact of social media, public perceptions. Diluting top-down, public-oriented risk conversations, individual differences in risk perception, echo chambers, striking visuals, balanced viewpoints in story</td>
</tr>
<tr>
<td><strong>Terror Management</strong></td>
<td>Existential anxiety motivating human behavior, anger, subliminal death primes</td>
<td>Experimental, conscious task of fantasy, anxiety-buffering function of self-esteem, personal relationships, world-view validation</td>
<td>Motivation, animacy, social influence/validation, favoritism, prejudice, outgroup derogation, stereotypes, conformity, benevolence, prosocial satisfaction, patience, tolerance, flexibility in thinking</td>
</tr>
<tr>
<td><strong>Hurricane Warnings</strong></td>
<td>Communicating hurricane warnings, slow-moving crises, risk amplification, shifting needs, milling, narrative</td>
<td>Milling, proactive information seeking, confirmation, prediction, social comparison, case study method</td>
<td>Co-created, building narrative, milling, amplified perception of risk, humor, predicting uncertainty, strain on supply chain, exposure to risk, safety preparatory action, assurance, shareability, user-generated (mis)information</td>
</tr>
<tr>
<td><strong>Psychological Reactance</strong></td>
<td>Psychological reactance resistance to influence, motivating</td>
<td>Experimental design health risk contexts, anger, negative cognitions, reflexive, restoration of freedom, message features, inductive format, controlling language, scales of state/trait reactance</td>
<td>Predict frustration, autonomy, self-determination, increased attraction, boomerang, source derogation, reactance-enhanced inoculation</td>
</tr>
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scholarship. We are not naive enough to think that this concept is new, on the contrary it is a battle-tested notion championed by some of the biggest thinkers of our time. We offer it as a complementary set of ideas that have withstood the test of time and are no less important than when they were considered novel. We find the concepts of engaged scholarship and ACR to be highly complementary processes.

References


Part I

Theoretical Perspectives
Inoculation Theory as a Strategic Tool
Bobi Ivanov, Kimberly A. Parker, and Lindsay Dillingham

Introduction

Greenwald suggested that theory “is the most creative form of scientific contribution,” and that, in general, the disciplines that are associated with theory-driven work are often perceived and characterized as *basic* or *pure* as opposed to *technical* or *applied*, which are terms reserved for disciplines that are more empirically or practically focused (2012, p. 99). The implication of this classification, as Greenwald notes, is to suggest that applied work is of lower status. Yet, there is no reason why theory cannot be the driving force behind sound, applied empirical research. After all, Lewin’s maxim proposes that “there may be nothing as practical as a good theory” (1943, p. 118; as cited in McCain, 2015). However, what exactly constitutes a *good* theory?

Greenwald suggested that a *good* theory is one that moves beyond the assignment of conceptual labels to laboratory research procedures and into a real-world application (2012). Indeed, as the proponent of *action research*, Lewin celebrated the importance of combining theory and practice (1946; McCain, 2015), as theory can guide our applied strategy in practical settings. Thus, theories with real-world application hold considerable value not only for practitioners, but also for theoreticians interested in testing and pushing the conceptual boundaries of the theory. Theories that can be applied to phenomena in multiple contexts are especially of value, as they may help explain or predict multiple events of significance. As such, good theories may provide practitioners with tools to help guide and shape their strategies. Consequently, the better these theory-based strategies perform in single and multiple contexts, the more practically useful the theories become. A good example of a theory with such practical utility is the theory of inoculation.

Labeled as the “grandparent theory of resistance to attitude change” (Eagly & Chaiken, 1993, p. 561), over 50 years of research have established inoculation theory as one of the most recognizable theories in the areas of persuasion research, in general, and resistance research, in particular (Compton, 2013; Ivanov, 2017). What has given this theory such prominence is its strategic application in multiple applied contexts, including political communication (see Compton & Ivanov, 2013), commercial communication (e.g., Pfau, 1992), corporate communication (e.g., Dillingham & Ivanov, 2017), public relations (e.g., Burgoon, Pfau, & Birk, 1995), interpersonal communication (Sutton, 2011), cross-cultural communication (Ivanov, Parker, Miller, & Pfau, 2012), instructional/educational communication (Compton & Pfau, 2008), risk and crisis communication (e.g., Ivanov et al., 2016), health communication, (e.g., Parker, Ivanov, & Compton, 2012), and sports, injury, and exercise...
Ivanov, Parker, and Dillingham (e.g., Dimmock et al., 2016), among other contexts. For this reason, this chapter examines the strategic utility of inoculation theory as applied in various contexts.

More specifically, this chapter begins with an introduction of inoculation theory’s conception, logic, theoretical mechanisms, and boundaries. It then reviews the diverse contexts in which the theory has been practically applied and/or tested and proposes additional contexts in which the theory may be applied with success. The chapter concludes with suggestions for, and an example of, how to design inoculation theory-based messages for practical application.

Overview of Inoculation Theory

In a seminal study on persuasion and propaganda, Lumsdaine and Janis (1953) tested the effectiveness of one-sided (presenting arguments only from one side of the issue) and two-sided (presenting arguments from both sides of the issue) messages in generating resistance to forthcoming counterattitudinal challenges. Their findings showed two-sided messages to be more effective, an outcome the authors contributed to the inoculating power of two-sided messages, which they believed to have given the message recipients “an advanced basis for ignoring or discounting the opposing communication” (1953, p. 318). Intrigued by these findings and this logic, McGuire (1964) proceeded to propose and explain the mechanisms responsible for the inoculation process. According to McGuire (1964), the success of inoculation relies on two key mechanisms, threat and counterarguing.

Threat, McGuire (1964) suggested, is the motivating force that initiates the inoculation-based process of resistance by delivering a “shock value” (McGuire, 1961, p. 185) to the inoculation recipient, which McGuire defined as the person’s realization of attitudinal vulnerability. Stated differently, the threat presented is intended to inspire the individual to take action in the form of attitudinal defense-building in order to preserve his or her attitudinal position when rendered to counterattitudinal persuasive attempts. Shocked into action, according to McGuire, the individual would proceed to build and accumulate counterarguments to the forthcoming challenges, thus preparing the inoculated individual to better protect the attitude (belief, intent, opinion, value, behavior, etc.; henceforth referred to only as attitude to avoid repetitiveness) in place.

The process of attitudinal inoculation is initiated through the use of inoculation messages (Ivanov, 2012, 2017). These messages incorporate two key components—forewarning and refutational preemption—that unleash the inoculation process. The message forewarning overtly introduces the threat to the message recipient by directly informing the individual of the vulnerability of his or her attitude in place. The refutational preemption component of the message, on the other hand, exposes the individual to a weakened form of a counterattitudinal argument, which the individual then proceeds to vigorously refute. Thus, the refutational preemption serves multiple functions. First, it provides a covert form of attitudinal threat by exposing the individual to potential counterattitudinal arguments he or she may face, thus rendering the threat real. Next, it provides direct refutation of the counterattitudinal arguments, which also arms the individual with specific arguments (content or material) that can be used in the defense of the current attitude. In addition, it affords the individual an example of how to engage in effective attitudinal defense through counterarguing practice. Thus, an inoculation message is designed to elicit threat that acts as a motivational catalyst that inspires the individual to shore up his or her defenses in preparation for forthcoming attitudinal challenges. In this manner, inoculation messages supply the individual with motivation, material (or content to be used in attitudinal defense), and counterarguing practice, all of which contribute to attitudinal resistance.

A question of significant practical import is whether the effectiveness of this strategy is limited when inoculated individuals face counterattitudinal challenges that are novel or different, as opposed to the same, from those encountered in the refutational preemption component of the
inoculation message. McGuire (1964) tested this possibility by challenging inoculated individuals with the same counterattitudinal arguments introduced in the refutational preemption or different ones. The results of his studies showed no significant difference in the ability of inoculation to generate attitudinal resistance regardless of whether the content of the counterattitudinal challenges was encountered previously (i.e., the refutational preemption) or faced for the first time. In their meta-analysis, Banas and Rains (2010) confirmed these findings, thus extending the practical utility of inoculation-based strategies, which do not have to account for all potential arguments the individual could possibly face. Thus, inoculation may form an umbrella of protection for all related arguments within an issue domain (Compton & Pfau, 2005). However, could this umbrella extend to related attitudes outside the issue domain umbrella?

In a study examining the possibility of cross-protection, Parker and colleagues (2012) found evidence that inoculation may provide protection to attitudes not just directly targeted with the inoculation message (e.g., condom use), but also related to the inoculated attitudes (e.g., binge drinking). Combined, the above-presented results suggest that inoculation-based strategies have the potential to protect vulnerable message-targeted and related attitudes from familiar or novel persuasive counterattitudinal challenges.

In medicine, inoculations are preemptive—or proactive—in nature as they are used to protect healthy individuals from contracting diseases. Following the logic of its biomedical analogy, attitudinal inoculations, therefore, are used to protect healthy attitudes from yielding to persuasive counterattitudinal efforts. As such, inoculation-based strategies are seemingly limited to the realm of preemption, prevention, or protection as one cannot protect attitudes that are not present. Stated differently, for example, one cannot protect a person’s attitude against smoking, if that attitude is not present in the first place.

However, this chapter is less concerned with the theoretical import or consistency of inoculation theory with its biomedical analogy to which it is inevitably tied, and more with the practical utility of inoculation-based strategies. Therefore, the relevant question of practical significance is whether inoculation messages would be effective not just in protecting attitudes but in establishing and/or changing them as well. Ivanov and colleagues (2017) compared the effectiveness of inoculation-based (two-sided) and one-sided messages in protecting, establishing, or changing the attitudes of individuals. The results showed that in all the cases, inoculation-based messages were more effective than, or just as effective as, one-sided messages. From a practical standpoint, inoculation-based messages provide the basis for a superior strategy irrespective of the original position of the attitude. Thus, instead of having to possibly use multiple message strategies (e.g., inoculation to protect current customers and one-sided strategy to win over prospective customers) to reach more than one objective, inoculation offers a single message strategy that can accomplish multiple objectives (e.g., protecting current customers and attracting new customers). A few key strengths of using inoculation as a single message strategy include message consistency with different target audiences (e.g. current and prospective customers), reduced market research costs associated with assessment of multiple audiences, and lower costs associated with preparing a single message strategy.

Another issue of practical significance is the personal relevance of the topic (issue, product, etc.) to the individual. Pfau and colleagues (2007) suggested that the effectiveness of inoculation is moderated by the individual’s involvement with the topic. They posited a curvilinear relationship where people at the moderate levels of involvement would find inoculation to be most useful and effective. Pfau and colleagues suggested that individuals who are not very involved with the topic at hand would not find defense-building to be pertinent given the low relevance of the topic. Conversely, individuals on the high end of the involvement spectrum may already be aware of the threats and may have already prepared for the upcoming challenges, thus rendering the effectiveness of inoculation limited. Yet, Banas and Rains (2010) did not find confirmation for this curvilinear relationship in their meta-analysis, which suggests that inoculation may be quite effective regardless of the individual’s level of involvement with the topic.
Overall, this overview explicates the effectiveness of inoculation suggesting that inoculation-based strategies may have clear advantages over one-sided message strategies in targeting intended and related attitudes regardless of whether the strategic objective is to protect, establish, or change an attitude that may be of different import to members of the target audience(s). Thus, inoculation-based strategies are applicable in numerous contexts. The next section provides an overview with examples of some of the contexts in which this strategy has been applied to date. It also introduces additional contexts in which this approach could be successfully applied in the future.

**Contextual Application**

Compton (Compton, 2013; Compton & Pfau, 2005) identified four general contexts in which inoculation-based strategies have been successfully tested and applied: politics, health, commerce, and public relations. However, the application of this message strategy is not limited to any particular context and, instead, it is applicable in any context in which an individual’s motivation can be elicited to protect, create, or change attitudes (Ivanov, 2017). To that end, this section will organize, review, and discuss the application of inoculation in the aforementioned contexts as well as introduce some additional relevant contexts in which inoculation has been, or could potentially be, applied. The presentation of the results of different studies in specific contexts is intended to be instructive, rather than definitive, as many of the studies are cross-contextual and, as such, could easily fit in multiple contexts. It is also important to note that the intent of this overview is not to provide an exhaustive account of all contexts, and studies within those contexts, that have received—or potentially could receive—inoculation application, but rather to provide a sample of the possibilities that inoculation-based strategies could offer.

**Civic and Legal Communication**

Rather than just focus on politics in its contextual overview, this section also includes discussion of the potential efficacy of inoculation in government, policy, and legal communication.

**Political communication**

Compton and Ivanov (2013) noted that political communication inoculation scholarship has taken a significant applied perspective with practitioners showing interest in protecting pro-candidate and/or pro-issue attitudes with inoculation messaging. Early research (Pfau & Burgoon, 1988) illustrated the ability of inoculation to deflect political attack messages from opposing candidates by inoculating the voter base. Follow-up studies extended the efficacy of inoculation messages to topics such as issue position and candidate perception (for review, see Compton & Ivanov, 2013).

Yet, Compton and Ivanov (2013) argued that most of the studies looking at the effect of inoculation on political campaigns have focused on the latter stages of the campaign. The authors proceed to cite Pfau and Burgoon, who suggest that “inoculation should prove more effective early in a political campaign, prior to the saturation of political campaign messages…” (1988, p. 106). In addition, Compton and Ivanov suggested that very little is known on the effect that inoculation messages have in political campaigns beyond the US borders. Both of these areas warrant further exploration.

**Public agencies**

Ivanov and colleagues (2016) have used inoculation messages to promote confidence in response of public agencies to politically motivated acts of violence. Ivanov et al. (2016) found that, compared with a control group, participants exposed to an inoculation message reported greater