If you are quick enough, I will think about it: Information speed and trust in public health organizations

Kenneth A. Lachlan [a,*], Patric R. Spence [b], Autumn Edwards [c], Katie M. Reno [d], Chad Edwards [c]

[a] Communication Department, University of Massachusetts Boston, United States
[b] Division of Instructional Communication, University of Kentucky, United States
[c] School of Communication, Western Michigan University, United States
[d] School of Communication Studies, University of Tennessee, United States

ARTICLE INFO

ABSTRACT

Social media continues to gain prominence as an information resource. However, little is known about how people perceive trust and credibility in social media messages, particularly in terms of abstract dispositions toward organizations. The current experiment examines the role of speed of updates on a twitter feed with perceptions of trust. The experiment is also used to address the convergent validity of the RAND Public Health Disaster Trust Scale. The results do not provide evidence of a direct relationship between speed of twitter feed updates and trust, but do support a mediation model in which cognitive elaboration mediates the relationship. Further, the convergent validity of the RAND Public Health Disaster Trust Scale is discussed, along with its utility for future studies of this type.

© 2013 Elsevier Ltd. All rights reserved.

1. Introduction

Communication campaigns aimed at addressing public health concerns and other threats to the public were once viewed largely as events that took place after the fact. Contemporary thinking on the matter has shifted toward emphasizing message campaigns that take place before an emergency occurs, thereby becoming a continual process as opposed to a single reactive response (Coombs, 2007; Reynolds & Seeger, 2005). Thus, contemporary scholarship concerning information campaigns associated with public health have shifted away from crisis response and toward *risk communication*, or campaigns designed to make the public aware of threats and recommended responses before a health emergency occurs. Risk communication can be conceptualized as a subcomponent of health communication, as it focuses on information and preventative steps that can be taken in order to minimize the harm of an event that has not yet occurred. By constructing and disseminating compelling risk messages, health care organizations can prevent harm from future health risks.

1.1. Public health threats and media habits

Critical in the construction and dissemination of health risk messages is the public's need for control. A substantive body of research has suggested that good risk communication messages

stress self-efficacy by providing tangible behavioral steps that individuals can take to mitigate risks. Providing risk information without subsequent recommendations on how to respond may lead to feelings of hopelessness or antisocial responses, as audiences may view the situation as hopeless or experience excessive levels of fear (see Lachlan & Spence, 2007, 2009, 2010). Further, risk communication practitioners must consider message placement, as failure to reach at-risk audiences will inhibit audience ability to undertake the behavioral recommendations that are forwarded. Finally, and critically, communication campaigns concerning public health threats should serve to reduce uncertainty for those potentially affected by the threat.

A long history of research in the psychology literature points to the need to obtain information to reduce uncertainty (see Berlyne, 1960; Heath & Gay, 1997; Spence, Lachlan, & Griffen, 2007). Lack of understanding, especially of events that carry with them any degree of uncertainty, is a fundamentally uncomfortable psychological state. When people do not have the information they need concerning potential threats, they are overwhelmingly compelled to seek out that information (Heath & Gay, 1997; Spence et al., 2005). The motivation to seek information concerning a threat is especially great in high involvement threats, or those that may lead to great reward or great punishment. The desire to seek information is also particularly strong when the risk in question is largely unknown or is completely uncontrollable, as is the case with natural disasters and pandemics (Miller, 1987).

Media Dependency Theory offers insight into the underlying processes associated with patterns of information seeking and

uncertainty reduction (Ball-Rokeach, 1985; Ball-Rokeach & DeFleur, 1976). This area of research has argued that individuals are largely dependent on media to make sense of phenomena that have not yet occurred or for which they would have no other frame of reference. Over time, as people become reliant on one particular source, that source will become trusted, and therefore more influential. Audience members then develop a series of sources they rely upon for information concerning different outcomes.

The dependency on media during times of crisis and public health threats is evident in the risk communication literature (Lachlan, Spence, & Seeger, 2009; Spence, Lachlan, & Burke, 2007). For example, Ball-Rokeach (1973) suggested that under conditions of tremendous ambiguity, individuals will look to those they consider experts and trusted media sources in order to resolve their uncertainty. Consistent with Media Dependency Theory, Ball-Rokeach (1985) and colleagues further argued that when faced with threats to health and well-being, reliance on trusted sources and perceived expertise will become more intense and people will also use them as a means of emotional release during the information seeking process.

When public health threats are impending, people can be expected to engage in specific information seeking patterns that are consistent with Media Dependency Theory (Brashers et al., 2000). Not only will individuals seek information from the media, they will seek information from organizations they trust for information concerning events similar to those at hand (Heath, Liao, & Douglas, 1995; Murch, 1971). It can be expected that the public will seek to obtain this information from public health organizations, given that those organizations are deemed trustworthy on public health issues. Thus, identifying the underlying psychological processes related to the identification of trustworthiness of public health organizations is critical to determining how to convince the public of that organization's credibility and the best practices for reaching and persuading audiences to take the appropriate actions under the circumstances.

Much of the research to date on the role of trust in mitigating health issues has revolved around the role of trust in reaching historically underserved communities, or those that may distrust public health organizations (Spence, Lachlan, Westerman, & Spates, 2013). This research has indicated that lower levels of trust concerning health organizations in the past, or specific bad personal experiences with health organizations, may impact contemporary interpretation of health messages and subsequent motivation to act upon (Rose, Peters, Shea, & Armstrong, 2004; Spence, Lachlan, Spates, & Lin, 2013; Thompson, Valdimarsdottir, Winkel, Jandorf, & Redd, 2004). Public health organizations and government entities must understand trust dynamics in order to best reach varying subpopulations during times of need. Finding best practices in response to health threats is largely contingent upon measuring and understanding abstract concepts, such as what it means to trust an organization as opposed to an individual (see Eisenman et al., 2012).

1.2. Trustworthiness and credibility

Trustworthiness in the communication literature is often measured as a form of credibility and categorized as one of three dimensions, typically expertise/competence (the perception that a person knows the truth), trustworthiness (the perception that a person will tell the truth if they know it), and goodwill (the perception that a person cares about the perceiver) (McCroskey & Teven, 1999). However, trustworthiness (as a measure of credibility) and institutional trust are different concepts, and an important difference between them may revolve around general reputation versus firsthand knowledge (see Eisenman et al., 2012; Mechanic, 1996). The RAND Public Health Disaster Trust Scale may be better

designed to examine issues of institutional trust and also has the advantage of being more parsimonious than McCroskey and Teven's (1999) Measure of Source Credibility. Though only four items, the Public Health Disaster Scale has been shown to have strong internal consistency, and indicates expected differences in institutional trust across demographic markers (Eisenman et al., 2012). Despite its use in previous studies concerning message speed and perceptions of information sources, the McCroskey and Teven (1999) scale is adapted from earlier research in interpersonal communication, and was designed to evaluate dispositions toward identifiable individuals, as opposed to organizations. This begs the question of the degree to which the Public Health Disaster Trust Scale will demonstrate convergent validity alongside previously used measures.

RQ1. Does the Public Health Disaster Trust Scale have convergent validity with previously used measures of trustworthiness, goodwill, and competence?

Although research has examined the importance of trust in reaching different audiences, little research has looked at the ways in which these processes may pan out in new media environments. This is problematic because public health organizations increasingly rely on new media technologies and social media to disseminate information about public health threats. Regardless of the target audience in question, it is unclear how message design and placement can be used to manipulate trust in public health organizations, and the underlying psychological mechanisms that may drive these trust processes. This leads to an examination of what is known about trustworthiness and source credibility in new media environments.

1.3. Credibility in social media

Social media use has skyrocketed in recent years is gaining acceptance as a legitimate form of information seeking (Pepitone, 2010). Leading the charge in terms of news and information, Twitter has developed into a significant information seeking resource (Morris, Teevan, & Panovich, 2010; Sin & Kim, 2013). Twitter is now the third largest information seeking social network, and is the largest devoted primarily to information seeking (Barnett, 2011; Parmelee & Bichard, 2012). Twitter has thus received significant interest from the academic community in recent years as a legitimate news source (Chen, 2011). Still, much is unknown about the ways in which people make their decisions regarding information seeking on Twitter, and the cognitive processes underlying evolutions of the credibility and trustworthiness of information found on Twitter feeds. Some evidence suggests that system-generated cues may influence cognitive elaboration, and that cognitive elaboration may be tied to subsequent appraisals of Twitter content (Westerman, Spence, & Van Der Heide, in press).

One of the most attractive features of Twitter as an information sources appears to be immediacy (Levinson, 2009). Defleur and Ball-Rokeach (1989), Eveland (2001) maintained that cognitive elaboration is the process of connecting newly obtained information with thoughts, memories, and scripts retrieved from personal experience. The literature on elaboration has forwarded that under highly rewarding or highly threatening situations, audiences will respond favorably to logical arguments because they will be compelled to actively process the information at hand (Petty & Cacioppo, 1986). Research in linear media has indicated that elaboration on mediated information is likely to lead to more learning (Fleming, Thorson, & Zhang, 2006).

In terms of the processes related to evaluations of public health organization trustworthiness in Twitter messages, Westerman et al. (in press) argued that the more immediate speed of updates