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Communication in times of crisis: The interplay between the organization, news media, and the public

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DISSERTATION OVERVIEW

INTRODUCTION

Pick any day of the week and you will find breaking news or top headlines on crisis situations (Coombs, 2015). Stories about plane crashes, explosions of chemical plants, product recalls, bankruptcy of large organizations, or oil spills have become part of today's news agenda. These business-related crises have become more significant with the increasing media visibility and societal impact of today's organizations (Boggs, 2000; Ihlen & Pallas, 2014). These so-called organizational crises can drastically affect and disrupt all segments of society (e.g., Gilpin & Murphy, 2008).

An organizational crisis can be defined as the perception of an unpredictable organization-related event that threatens the central expectancies of actors related to the organization and can seriously impact an organization's reputation or performance and generate negative outcomes (Coombs, 2007, 2015; Jin, Liu, & Austin, 2014). Crises generally strike suddenly, giving them an element of surprise. Therefore, these critical situations and their harmful consequences are difficult for an organization to anticipate. The potential negative outcomes extend beyond financial loss for the organization (Coombs, 2015). Crises can, for example, cause injuries or deaths, harm the environment, or result in general economic downturn. As this dissertation focuses exclusively on organizational crises, the term crisis refers to an organizational crisis. Furthermore, this dissertation focuses specifically on three key actors, namely the organization undergoing the crisis, news media, and the public. As the aim of this dissertation is to explore the communicative interplay among key actors in times of crisis, the overarching research question is formulated as follows: *How does the communication of the organization, news media, and the public evolve in times of organizational crises?*

As different as organizational crises can be, they do share some important fundamentals. Within a matter of hours or days, each type of crisis can radically redefine the organizational reputation (Coombs, 2007), disrupt ongoing practices (Patriotta, Gond, & Schultz, 2011), result in high media attention (Schultz, Kleinnijenhuis, Oegema, Utz, & van Atteveldt, 2012), and significantly damage society (Gilpin & Murphy, 2008). A well-studied example of an organizational crisis is the BP oil spill of April 2010 in the Gulf of Mexico (Kleinnijenhuis, Schultz, Utz, & Oegema, 2013). The explosion of Transocean's Deepwater Horizon drilling rig, that was drilling for oil on behalf of BP, killed 11 workers and injured 16 and caused the Deep Horizon to burn and sink. The international news media covered this crisis as an environmental disaster. The price of BP's shares dropped drastically, the CEO Tony Hayward was replaced, and the explosion caused one of the largest accidental marine oil spills. Another more recent example is the Volkswagen emission scandal. It began on 18 September 2015 when the Environmental Protection Agency (EPA) found out that multiple Volkswagen's models had devices in diesel engines that could detect when they were being tested, lowering the nitrogen oxides emissions during laboratory tests to improve the results. The scandal that came with negative media attention had far-reaching consequences for Volkswagen. Volkswagen's stock price plunged significantly in value, consumer trust was significantly damaged, CEO Martin Winterkorn had to resign, and billions of dollars were needed to rectify the fraud. On top of that, the higher levels of pollution resulted in substantial health and environmental hazards.

Because of their potential for catastrophic damage, crises have become an extensively covered phenomenon in the fields of public relations research and communication science. At large, scholars acknowledge the importance of communication at times of crisis. The dissemination of information and communication are generally crucial in the degree of crisis escalation and its potential impact (Thelwall & Stuart, 2007). Due to the low-probability and complex character of organizational-crisis situations, these situations defy interpretations and impose demands on sense making (Schultz & Raupp, 2010; Weick, 1988). Sense making, as a central organizational construct, describes how actors come to make sense of events or issues related to an organization that need to be made intelligible to themselves as well as to others (Weick, 1995). In these crisis situations, actors engage in sense making activities in order to provide an account that functions as an interpretation (Cornelissen, Carroll, & Elving, 2009; Quinn & Dutton, 2005). These accounts can include discursive narrations or framing of an event, issue, or decision. The definite understanding and sense making of the crisis is formed in the communication and negation among the involved actors. Incomplete understanding and communication of emotionally charged crisis events may result in (unnecessary) confusion or even panic and will complicate the solving of the crisis (Liu & Kim, 2011). Hence, when communicative actions fail, minor problems can spiral into major crisis situations, intensifying small and unexpected organizational events (Weick, 1988). In sum, the communicative process is crucial during a crisis in order to make sense of the situation at play, limit negative outcomes, and in the end solve the crisis.

To acknowledge the importance of communication in organizational practices, a multi-actor perspective is needed. Coming from a narrow focus on the organizational perspective in the field of public relations, researchers started only recently to explore, on a more elaborated level, the interplay of organizational communications with other domains as news coverage and public perception (Schultz et al., 2012). Concepts from related fields as mass communication and political communication, such as agenda setting (Kiousis, Popescu, & Mitrook, 2007; McCombs, 1997) and framing (Scheufele, 1999; Scheufele & Tewksbury, 2007; Vliegenthart, Schuck, Boomgaarden, & De Vreese, 2008), that focus more strongly on the understanding of events or issues and therewith acknowledge the role of multiple actors, have not been fully conceptualized and empirically analyzed for the field of public relations and corporate communication so far. However, an emerging research avenue is approaching organizations as to be part of a multi-actor network (e.g., Van Woerkum, Aarts, & Van Herzele, 2011), acknowledging today's so-called network society (Castells, 2007). This network of involved or interested actors can define or redefine the organization's reputation and performance. Organizations are no longer given a central place (Fassin, 2008). The control over communication no longer lies with the organization, and the new communicative role of key actors deserves closer investigation (e.g., Luoma-aho & Vos, 2010).

Especially at times of crisis, the interplay of multiple actors and the organization is at the center of communication (Kleinnijenhuis et al., 2013). The complex and rapidly evolving nature of a crisis creates an intense communication need to provide coherence to the issue (Hellsten, Dawson, & Leydesdorff, 2010; Snow, Rochford,

Worden, & Benford, 1986) and reduce uncertainty (Leydesdorff & Ivanova, 2014). Since sense making is by definition a social process (Van Ruler & Verčič, 2005), how a crisis evolves is not merely based on the occurrence of events but also involves the communicative interaction between significant actors. Both traditional and new media provide numerous actors with platforms to communicate about how the crisis should be interpreted, which elements should be emphasized, and what steps should be taken. These interactions reach into a wide range of research interests, echoing calls for a multiple-actor perspective in crisis research and more complex analyses on the interactive negotiation during crisis situations (Kleinnijenhuis et al., 2013; Liu, stino, & Jin, 2015; Schultz et al., 2012).

The previously addressed crisis examples also illustrate the presence of multiple actors during an organizational crisis. First, local, national, and international news media played a huge role in the BP oil spill crisis. The media framed the explosion as one of the largest environmental disasters and frequently showed images of for example heavily oiled pelicans and dolphins swimming in emulsified oil. Moreover, the public advocated a boycott of BP, local fishing and tourism industries were extensively damaged, and even president Obama of the United States demanded that BP took full responsibility for the crisis. Second, the Volkswagen emission scandal was discovered by a group of scientists at West Virginia University and after announcement the scandal received widespread negative media attention. German Chancellor Merkel urged for complete transparency while public trust in Volkswagen drastically decreased and duped consumers demanded compensation.

Although the communication among multiple actors is of particular importance in crisis research, academic research has so far mainly approached crisis communication from an organization centric perspective, applying recipient-focused approaches and using management-related theories (Coombs, 2007; Jin et al., 2014; Kim & Cameron, 2011). The central aim of this dissertation is to overcome these shortcomings in the field of public relations and crisis research. Therefore, the focus is on the interplay between the key actors – the organization, news media, and the public – to provide a starting point in understanding the role of multiple actors within the communication and development of organizational crises.

In the remaining part of this chapter, the dissertation will be introduced in more detail. First, the focus of the dissertation is addressed by providing some additional insights into the current state of the literature regarding crisis communication and the need for new theoretical approaches and perspectives. The next section outlines the individual chapters of the dissertation. Finally, the overall conclusions and discussions of the findings of this dissertation, theoretical, methodological, and practical implications, and suggestions for future research will round out this chapter.

FOCUS OF THIS DISSERTATION

Public relations and organizational crisis research has to this point provided insightful knowledge on the role of communication at times of organizational crisis. Up to now, relevant studies have predominantly addressed crisis communication by exploring the effectiveness of organizational communication in the midst of a crisis (Coombs, 2006; Schultz et al., 2012). The dominant theory in crisis research, defined as Situ-

ational Crisis Communication Theory, focuses on the crisis-response strategies an organization can adopt to inform the public and limit post-crisis reputational damage (Coombs, 2007). Based on Benoit's (1997) speculative image restoration strategies, Coombs (2007) categorized several response strategies as denial, diminish, and rebuild. First, the denial strategies attempt to remove any connections between the crisis and the organization in order to avoid damage from the crisis. Examples of this strategy are attacking the accuser, denying that there is a crisis, and blaming someone else (scapegoating). Second, diminish strategies are aimed at downplaying the crisis and the organization's role in the crisis. An organization might try to accomplish this by denying intent to do harm or minimizing the perceived damage as a result of the crisis. Third, rebuild strategies aim at avoiding reputational damage by offering symbolic or material aid to those affected by the crisis (Coombs, 2006, 2007). Examples are offering compensation in the form of money or gifts, taking full responsibility, and asking for forgiveness. Empirical research has demonstrated how these strategies, for various crisis situations, differently affect several outcome variables such as the organization's post-crisis reputation (Coombs & Holladay, 2008) and secondary crisis communication (Schultz, Utz, & Göritz, 2011). The rebuild strategy is generally found to be the most effective strategy to limit negative crisis outcomes. These empirical results demonstrate the importance of communication at times of crisis. However, the majority of these studies did not succeed in overcoming the underlying organization-centered perspective and strong focus on unidirectional communication. Therefore, this dissertation aims to expand on prior public relations literature and crisis research by investigating how crisis communication evolves in the dynamic interplay between several key actors at times of organizational crisis.

Interplay between the organization, news media, and the public

In a world of greater interdependency and change the significance of (mediated) communication to understand the evolvement of issues is apparent to scholars (Neuwirth, 2010). Research on the communication of agendas or discussion of major news events generally addresses the multidirectional interplay between the media, public, and organizational agendas (e.g., Kleinnijenhuis et al., 2013; Riegert & Olsson, 2007; Schultz et al., 2012). First, the organization experiencing the crisis is naturally an important player in crisis communication. The organization's public relations department and communication professionals are by definition responsible for the communication with external actors and maintaining good relationships with them, also in the event of a crisis (Ulmer, 2001; Veil, 2012). Accordingly, some researchers focus on communicative preparatory plans for when a crisis strikes, monitoring to recognize issues that might turn into crises, and how the communication department of an organization should respond in times of crisis (Coombs, 2015).

Second, in today's media-saturated society, the role of news media and how crises are covered should not be overlooked (e.g., Cornelissen et al., 2009). At large, mass media studies provide strong evidence that news media are capable of determining what is on the public agenda and how the public evaluates specific

issues (Carroll & McCombs, 2003; Scheufele, 1999). Also in the context of organization-related events and crisis situations, the media play a large role in how issues are interpreted and understood (Kleinnijenhuis et al., 2013).

Third, the advent of social media has enhanced the public's capacity to influence which elements of an issue are emphasized and why some features of reality are highlighted within communication (Saxton & Anker, 2013). Social media provide the public with a channel to quickly communicate their respective interpretation of the crisis, reaching millions of people without the intervening presence of journalists (Neuman, Guggenheim, Jang, & Bae, 2014). This development made the public part of the network society and increased their capacity to influence others' perspectives (Castells, 2007). Since the dissemination of information and communication plays a crucial role in the evolution of a crisis, social media have increased the public's potential to influence aggregate levels of crisis understanding and the development of a crisis (Saxton & Anker, 2013).

In sum, in order to understand the communication processes at times of crisis this dissertation emphasizes the interplay between the organization, news media, and the public. These key actors could also be considered as a high level of aggregated actors, where multiple lower-level (ultimately individual) actors combined are actually part of the same aggregated actor. Nevertheless, these aggregated actors are often considered in research as a relevant unit of analysis, with each of them their own logic. The dynamics at this meso or macro-level are particular relevant for this dissertation's emphasis on the evolvement of communication. Therefore, the focus on these three key actors will provide important new insights into the communication at times of crisis within and among the most significant actors.

Theoretical approach to investigate the communicative interplay

As crisis communication has so far been mainly explored from an organizational and unidirectional perspective, the exploration of the interplay with news media and the public asks for a new theoretical approach. In general, traditional communication theories provide useful approaches that are potentially relevant to explore the flow of communication and the role of several actors at times of crisis. For example, studies of news diffusion examine the flow of information and the awareness of critical events through a social system (Rogers & Kincaid, 1981). These studies observe how patterns of media coverage direct the public's reaction and stimulate the rapid flow of information throughout the population. Typically, media alter their routine operations and increase their coverage when reporting on critical events such as wars or major disasters. Moreover, media system dependency theory tied together the relationship of mass media, as a broad social system, and the public, on the individual level, into a comprehensive model of media effects (Ball-Rokeach & DeFleur, 1976). The interdependent relationship among media and the public as different systems is the key focus in this theory to understand media effects. This theory basically states that the effect of the media depends on how important media are in a person's life. This dependency is heightened when the number of media and centrality of media functions is high in society and when society is undergoing social change or conflict – e.g., in times of war or crisis (Neuwirth, 2010).

Furthermore, the two-step flow theory posits an indirect effect of news media (Katz, 1957; Lazarsfeld, Berelson, & Gaudet, 1944). Mass media influence the opinions or agendas of opinion leaders who in turn affect the broader public or audience. In this flow of communication, explaining media effects, different actors could fulfill the role as transmitting or diffusing media agendas but also as filters or as amplifiers of media effects. Communications theories like these classical theories provide useful perspectives to understand the evolvement of crises as a result of communication. However, these theories mainly hold on to the idea of static patterns of effects in terms of a unidirectional causality through fixed channels and a static relationship among the domains and actors involved. Accordingly, these major approaches in communication science, despite their widespread influence, have been criticized on several grounds, including a view of a passive audience, the assumption of a linear communication flow, and a sender-based definition of communication success (Kepplinger, 2007; Neuwirth, 2010). Hence, to gain a complete understanding of the dynamic and complex interactions among prominent actors at times of crisis, theories that emphasize multiple perspectives at the same time need to be selected.

In order to address the multidirectional interplay and highlight the role of the organization, news media, and the public in the process of crisis communication, this dissertation draws from similar, yet separate, lines of research. By looking at the concept of a crisis from three approaches, and therewith combining the perspectives of three different scientific theoretical disciplines, this dissertation aims to obtain a more complete understanding of crisis communication. First, the theory of framing, rooted in thoughts of media effects, has only partly been applied to public relations and crisis research (Hallahan, 1999; Schultz et al., 2012). Frames can be understood as schemata of interpretation that help individuals to understand events or issues in a constructed reality (Benford & Snow, 2000; Entman, 1993). Framing theory helps to highlight the role of multiple actors and how they make sense of relevant issues that are at stake (Gamson & Modigliani, 1989). In general, framing research offers strong support for how frames provided by news media, or other institutions, can influence audiences' evaluation of an issue (e.g., Davis, 1995). Additionally, the public is gaining a more prominent role in the framing of issues with the advent of social media (Karlsson, Bergström, Clerwall, & Fast, 2015; Neuman et al., 2014). In the context of organizational crises, framing processes can play a fundamental role in the evolvement of a crisis (Coombs, 2007; Liu & Kim, 2011; Seeger, 2002; Van der Meer & Verhoeven, 2013). As issues can be viewed from multiple perspectives, the question is how the organization, news media, and the public differently frame aspects of the crisis.

Second, stakeholder theory is a helpful approach to understand how an organization relates to multiple actors during a crisis and to explore the dynamic environment that an organization operates in (Stephens, 2005). Stakeholder theory basically states that in order to be successful, an organization should acknowledge the importance of their relationships with different key actors. The terms stakeholder and (involved) actor refer in the context of this dissertation to the same thing and will therefore be used interchangeably. At times of crisis, good stakeholder relationships and pro-active crisis communication can advance collective sense making and

prevent crisis escalation (Alpaslan, Green, & Mitroff, 2009). This emphasis on the influence of numerous actors helps to understand how an organization communicates with different actors and how relationships develop or change during a crisis.

Third, theories regarding gatekeeping and source selection are helpful to understand how journalists and the active public use information provided by others during a crisis. Gatekeeping theory offers a powerful approach to explore how news media and their journalists report on a crisis and how the quantity of information received is reduced to fit available time and space. Gatekeeping refers to practices regarding how journalists select news items but also relates to the decision as to which sources are selected to cover a story (Shoemaker & Reese, 1996; Shoemaker & Vos, 2009). Journalists' sources are found to play an indispensable role in the production of news and therefore matter in determining which frames manifest in the news (Gans, 1979; Hanitzsch, 2004). This approach can be applied to understand which actors are more likely to obtain a voice in the news and in turn affect news framing of the crisis. Information sources are not only crucial for journalists but also for the public to obtain crisis information. Most members of the public will not directly experience the crisis and might therefore turn to information sources that are easily obtained and shared online (Chung, Nam, & Stefanone, 2012). Consequently, it can be assumed that actors, by serving as a source for information, play a significant role in how journalists and the public understand the crisis and formulate frames.

OUTLINE CHAPTERS

This dissertation comprises four self-containing studies of empirical research, which are presented in the subsequent chapters. The interplay between the organization undergoing the crisis, news media, and the public is central to the dissertation and combines the chapters. Each chapter focuses on this dynamic interplay from a different perspective and theoretical approach. As a starting point, the first chapter applies a framing perspective to explore the interplay among all three actors during a crisis. The second chapter relies on stakeholder theory to address the relationship with involved actors during a crisis from the perspective of the organization and its public relations (PR) professionals. The third chapter uses gatekeeping theory to elaborate on how organizational crises are covered by news media and journalists. Finally, by relying on a framing and source selection approach, the fourth chapter focuses on the public and how they select and use information sources in their online framing of a crisis. To address these matters, the project draws on research triangulation. With the focus on different perspectives in combination with different methodological approaches, this dissertation aims to gain substantial and detailed insights into the dynamic communicative interplay among actors in times of crisis. Figure 1 schematically summarizes the triadic interplay among the organization, news media, and the public and details the focus of each chapter.

The following section provides a brief summary of the four chapters. Each chapter presents an independent article, which is either published or submitted for publication, that contains its own abstract, introduction, theoretical framework, method, results, and conclusion and discussion.

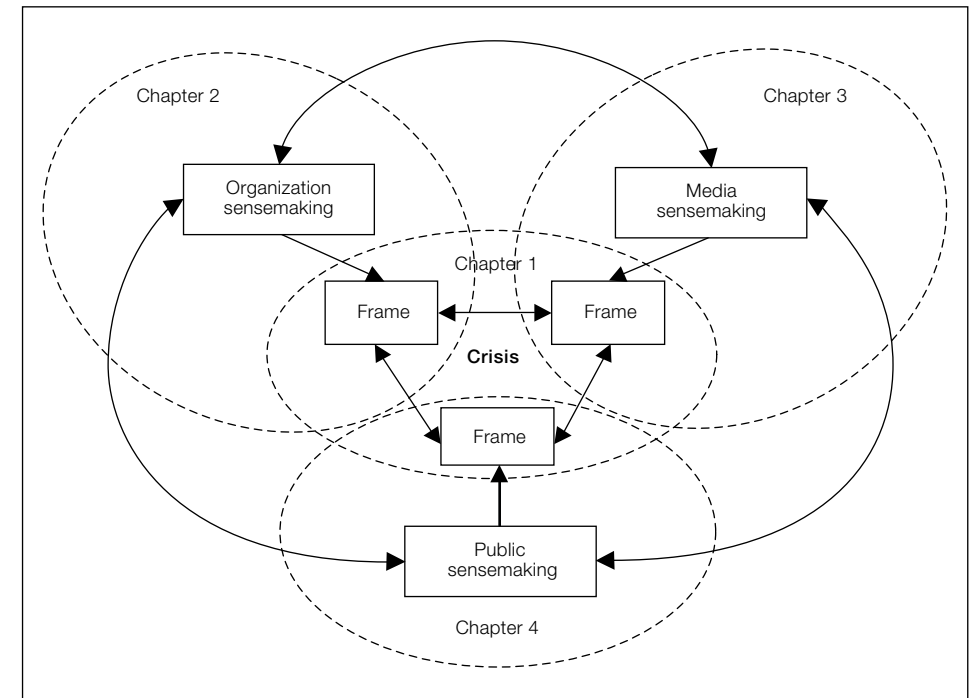


Figure 1. Outline dissertation: The interplay of the organization, news media, and the public during a crisis.

Chapter 1. Crisis framing by the organization, news media, and the public

The first chapter applies a framing perspective to explore the interplay of the organization, news media, and the public during a crisis. Although it has been widely established that the framing of an issue can have an effect on how it is perceived and understood, the framing of a crisis has gotten little attention in public relations and crisis research (Schultz et al., 2012). The objective of the study reported in this chapter is therefore to gain more insight into how the different actors frame an organizational crisis. Building on prior framing research extrapolated from political communication and mass communication literature, this research explores to what extent the crisis frames of the organization, news media, and the public align over time. Frame alignment generally implies that the frames of different actors become more linked, congruent, and complementary (Snow et al., 1986). This study argues that, when time passes during a crisis, the frames of the three actors will temporally align to provide coherence, reduce uncertainty, and ultimately solve the crisis situation (Hellsten et al., 2010; Schultz & Raupp, 2010). Therefore, the central research question of this empirical study is as follows: *Does the crisis framing of the organization, news media, and the public align over time?*

To empirically explore the process of frame alignment at times of crisis, the study applies a semantic-network analysis to compare implicit framing between the actors. This methodological approach facilitates the identification of implicit

frames in texts and statistically determines the level of frame alignment among different actors based on word (co)occurrence. This empirical investigation aims to answer the research question by comparing crisis-related press releases of the organization experiencing the crisis, newspaper articles, and social-media manifestations of the public (N = 51.170 messages). Four Dutch crisis cases were selected and analyzed on the level of frame alignment among the three actors for several research periods.

The findings detected a crisis-specific pattern of frame alignment over time among the organization, news media, and the public. Overall, the results for all four crisis cases documented that after the absence of frame alignment in the initial crisis phase, the frames of the three actors aligned over time. However, this frame alignment was only a temporary phenomenon as the frames de-aligned in the final phase of the crisis. As frame variation across actors is generally the norm, the findings imply that the alignment was a temporal necessity to make sense of the situation forced by external circumstances, namely the emergence of an organizational crisis. Moreover, when comparing the four crisis cases, the results document an overall rise in the level of frame alignment over the years.

Chapter 2. The perspective of the organization

The second chapter emphasizes the perspective of the organization and how they deal with other involved actors at times of crisis. In accordance with stakeholder theory, organizations can be influenced and shaped by their relationship with a variety of actors related to the organization (Fassin, 2008). Especially during an organizational crisis, the relationship with stakeholders can be of crucial importance as it can shape outcome factors as crisis understanding, organizational reputation, and crisis escalation (David, 2011). This paper investigates the development of stakeholder-organization relationships in the initial phase of an organizational crisis. At these critical times, various actors are likely to increase their pressure on the stricken organization and its PR professionals through numerous online and offline media channels (Jin et al., 2014). These various forms of pressure during a crisis might significantly alter the organization's relationships with its stakeholders. The study explores this effect by looking at the organization's relationship with external stakeholders – i.e., news media and the public – and internal stakeholders – i.e., management and other employees. The research question addressed in this chapter reads as follows: *How do organization's communicative stakeholder relationships differ when the organization undergoes a crisis, compared to routine circumstances?*

In order to analyze the pressure from and the relationship with stakeholders, 444 experienced European PR professionals were surveyed as they represent the organization and organizational communication in times of organizational crisis. PR professionals were asked about the extent to which they experience pressure from the different external and internal stakeholders, their perceived time pressure and uncertainty, and as dependent variable the relationship between the organization and the stakeholders. All questions were asked for both normal times and crisis times. For the purpose of answering the research question, several structural equation models were constructed. The models tested for the direct effect

of stakeholder pressure on stakeholder-organization relationship and the indirect effect through time pressure and uncertainty, controlling for normal circumstances.

The findings showed how PR professionals' experienced pressure from stakeholders increased and how the relationship with stakeholders decreased during a crisis compared to normal times. Moreover, as expected, the findings show that, in times of crisis, pressure from news media, the public, and other employees had a significant negative effect on the communicative relationships with these specific actors. Additionally, as hypothesized, the findings expose a significant positive effect of management pressure at times of crisis on the relationship between PR professionals and management. This positive association implies the close working relationship between PR professionals and the top management in the initial phase of a crisis, implying organizational isolation on the managerial level. Furthermore, the analyses exposed, for most stakeholders, the mediating effect of time pressure in the effect of stakeholder pressure on relationship. Thus, stakeholder pressure can increase perceived time pressure, which in turn can negatively affect the relationship. No significant mediation effect was found for perceived uncertainty. Finally, stakeholder-organization relationships under normal times strongly predicted the relationships at times of crisis, indicating that well-nurtured pre-crisis stakeholder relationships will pay off in times of crisis.

Chapter 3. The perspective of news media

The aim of the study presented in chapter three is to explore the role of news media and journalists at times of an organizational crisis. News media coverage is known to be able to shape or alter the evolution and magnitude of an organizational crisis (e.g., Triandafyllidou 2009; Kleinnijhuis et al., 2013). Public understanding and acting regarding a crisis situation often depends on the information provided by news media (Sorribes & Rovira, 2011). To understand how an organizational crisis is covered in the media, this study explores journalists' gatekeeping function and focuses on which sources are selected (Shoemaker & Reese, 1996; Shoemaker & Vos, 2009). The study investigates how journalists determine whether news agencies, the organization experiencing the crisis, and the public should get a voice in the news during a crisis. In order to explore the mechanism underlying these gatekeeping practices several fundamental selection determinants that can influence source selection are addressed. More specifically, it is explored how source selection is affected by journalists' judgment of the source – i.e., source credibility and knowledge –, sources' activities – i.e., sources' willingness to share information and timely communication –, and the relationship between source and journalists. The central research question for this chapter is: *How do journalists select sources during a crisis situation?*

To investigate journalists' gatekeeping practices during a crisis a survey among 214 Dutch practicing journalists was conducted. Journalists were asked to respond to several items for the three potential sources: news agencies, the organization, and the general public. The dependent variable was sources' likelihood to be selected as a source in the initial phase of a crisis. Journalists responded to questions about sources' credibility, knowledge, willingness, timeliness, and their relationship with

the source. Using structural equation modeling, the direct and indirect effects of these variables on sources' likelihood to be selected were tested. Additionally, the level of importance of the different determinants is compared among source types.

The findings show that sources' likelihood of being included in the news could be predicted based on the five source characteristics credibility, knowledge, willingness, timeliness, and relationship. The effect of these factors depended on source type. For example, only in the case of the organization, willingness had a negative effect on being included in the news, imply journalists' skepticism towards organizations that are too eager to get their story across during a crisis. The results show how journalists assess different sources based on different criteria they consider relevant for that specific source. Ergo, as comparable to non-crisis times, it can be assumed that journalists remain critical gatekeepers when covering an organizational crisis. However, journalists clearly showed to favor news agencies as a source in times of crisis. The reliance on this familiar source might result in unbalanced representation of sources in crisis coverage in the initial phase of a crisis.

Chapter 4. The perspective of the public

The final study presented in chapter four explores organizational crisis communication from the perspective of the public. The role of the public in crisis communication has changed with the diffusion of online communication technologies and the advent of social media (Westerman, Spence, & Van der Heide, 2014). Social media have gained prominence as a tool for quick crisis communication offering the public a many-to-many platform to disseminate and create unique crisis information (Jin, Fraustino, & Liu, 2015). This development has enhanced the public's capacity to affect crisis understanding and the framing of the crisis (Saxton & Anker, 2013). Traditional frame-building research acknowledges the crucial role of information sources in framing processes (Dimitrova & Stromback, 2011; Tuchman, 1978). Especially in an online environment, the public can easily obtain and share information sources (Chung et al., 2012). Hence, it is likely that sources – i.e., national and local news media, the organization central to the crisis, or other members of the public – play a significant role in the public's online framing.

The aim of this study is to model the comprehensive process of public frame building by exploring two fundamental steps in frame building, related to the role of sources. A dual study approach is applied to obtain a more complete understanding of public framing processes. First, study 1 explores how the public uses sources to address certain frame functions – i.e., problem definition, causal interpretation, moral evaluation, and treatment recommendation (Entman, 1993). Second, Study 2 aims to explore the underlying mechanism of the public's source selection. The central research question reads as follows: *How does source usage affect the public framing of a crisis and when does the public uses information provided by sources?*

Study 1 applies four datasets of tweets (N = 252,711) send by the public about Dutch crises that set in motion a significant chain of messages. Using manual-content analysis, it was coded how frequently the public used national and local news media, the organization central to the crisis, or other members of the public as a source. A combination of automated content analysis, Latent Dirichlet Allo-

cation and K-means clustering, was applied to identify which frame functions the public addressed in their online crisis communication. Time-series analyses – i.e., partial adjustment autoregressive distributed lag models – are conducted to assess whether the use of sources affects frame functions.

Because the findings of Study 1 exclusively provide understanding of the association between source usage and addressed frame functions, Study 2 complements this by addressing the preceding step of how the public selects source information. Study 2 presents a vignette study where respondents (N = 772) were presented five short online messages (i.e., vignettes) of fictional crises based on the analyzed material and findings of Study 1. The crisis messages were manipulated on the following external factors: Source of the message (website national news, website regional news, website central organization, or social media message of a member of the public), crisis magnitude (accidents or fatal accidents), and crisis origin (organization responsible for the crisis or not). To test the effect of these manipulated elements, respondents were asked, after exposure to each message, about the dependent variable how likely they would use this information. After the experimental stimuli had been judged, measures for general crisis involvement and habitual source use were obtained.

The findings of Study 1 show that sources play a significant role in whether the public addresses frame functions. A frequent reliance on sources for crisis information was observed and the selection of these sources was found to affect which frame functions were addressed online. The public mainly relied on other members of the public as a source, but the use of news media was most significant in explaining whether certain functions were addressed. Moreover, the public was found to use sources more often to address certain frame functions. Functions related to initial problem definition were frequently not correlated with source usage whereas causal interpretation and treatment recommendation functions, related to later phases of a crisis, were frequently initiated by source usage. Study 2 observes that external and internal factors determine which sources the public uses. Depending on source type, the factors crisis origin, crisis magnitude, crisis involvement, and habitual source use can affect the likelihood that the public selects source information at times of crisis.

OVERALL CONCLUSIONS & DISCUSSIONS

Crisis situations, as external circumstances, bring forward new mechanisms of communication and interaction among key actors. Despite differences in size and shape, crises seem to share certain fundamental characteristics if it comes to the interplay of an organization, news media, and the public. The studies presented in this dissertation shed light on several crisis-specific communication patterns and other findings that contribute to the understanding of how organizational crises evolve. The subsequent section summarizes the overarching conclusions and discussions of the four chapters.

Separation of worlds

An organizational crisis never occurs in isolation neither does it start off in extensive interaction. At times of crisis, multiple actors and domains are involved and become part of the same issue forced by the occurrence of the crisis. Despite the importance of communication in times of crisis, this dissertation came to the understanding that extensive communication among actors is at first lacking or absent. The findings of all four studies combined indicate the separation of worlds, in the initial phase of the crisis, on the subject of understanding the crisis and communicating about it. Communication mainly flows within the separate domains. Despite the increased need for communication (Thelwall & Stuart, 2007) and necessity of clarification (Weick, 1988) no active communication among the organization, news media, and the public is detected. This form of isolation holds that actors separately make sense of the crisis, potentially resulting in different crisis understanding and frame formation.

The separation of worlds became especially evident in the study presented in chapter one. This study empirically showed that, for several crisis cases, the frames of the organization undergoing the crisis, news media, and the public were not aligned at the initial phase of a crisis. This frame variation demonstrates how the actors differently made sense of the crises in their first communication, indicating the separation of worlds. Correspondingly, the other three studies also showed a lack of communication in the initial phase of the crisis. Chapter two showed that when an organization undergoes a crisis it mainly values the relationship with its management. In the initial crisis phase, the organization isolates itself on a managerial level and tries to keep news media and the general public at a distance. The third chapter observed comparable patterns. During the initial phase of an organizational crisis, journalists mainly rely on sources that are part of the same journalistic domain (i.e., news agencies). Journalists were more likely to include information provided by other news outlets in their crisis reports, compared to information from the public or the organization in crisis. The final study showed that the public's online reliance on sources for crisis information depends on the frame functions they aimed to address. The functions that related to problem definition, functions that can be associated with the initial phase of a crisis, were frequently not initiated by sources. Apparently the public separately made sense of what is going on in the beginning of the crisis without the usage of external information provided by news media and the organization.

Separate sense making might complicate the solving of the crisis and potentially cause panic or result in the escalation of the situation. Collective understanding and consensus might be a necessity to solve the crisis (Heath, 2006; Seeger, 2002; Weick, 1988). For example, study one observed how the difference between the frames of the public and news media, regarding an explosion of a chemical plant, could have worsened the crisis. While the frames of news media initially emphasized safety measures, the public frames related to speculations of a terrorist attack and the lack of information. If the frames among the actors had aligned in the initial crisis phase, the public potentially would have known that the explosion was not connected with terrorism and that there was no need for panic. Whereas

close-working relations with involved stakeholders might help to deescalate the crisis, the findings of the four studies imply that the actors move or stay away from each other to individually make sense of the situation at play. Hence, organizations' initial focus on their management (chapter two), journalists' preference for news agencies as a news source within the first 24 hours of a crisis (chapter three), and the public's lack of using external sources for crisis understanding (chapter four) might delay the solving of a crisis. Looking at figure 1, presented on page 15, one could argue that, if the sense making of the individual actors relates to the initial phase of the crisis, the unidirectional lines drawn between the sense making of the three actors are in reality not that strong or not even present. There might be, to a certain extent, a form of communication, however, the actors mainly focus on themselves to understand and define the crisis in the initial phase.

Alignment of worlds

Despite the initial separation of worlds, the occurrence of an organizational crisis creates a need of meaning coherence. The confusion and uncertainty caused by the often complex crisis situation complicates the solving of the crisis (Seeger, 2002; Weick, 1988). The high level of uncertainty, as a key characteristic of a crisis, needs to be reduced to obtain a level of understanding that enables communication among the actors. As long as the uncertainty and multiple interpretations of the same issue remain, the crisis persists and the actors remain separated. Ergo, the communicative alignment of the frames of multiple actors becomes an inevitable necessity, as it would help to limit uncertainty, avoid crisis magnification, and help the actors to decide how to act appropriately without intensifying the crisis. When collective understanding evolves more fully and more quickly, it will decrease the chance of errors and crisis escalation (Weick, 1988). In order to reach this coherence, the study presented in chapter one observed the temporary rapprochement of actors, after the initial crisis phase. Over time, the crisis frames of the organization, news media, and the public aligned to some extent, meaning that their frames became more similar. Furthermore, the findings of the other chapters also provide some indications of intentional rapprochement of the actors. For example, in chapter four, the public was found to mainly use sources as news media and the organization to address frame functions that relate to a later phase of the crisis – i.e., functions related to causal interpretation and treatment recommendation. These findings show how, after some time, crisis speculations and interpretations are exchanged and discussed between actors in an attempt to reach a collectively accepted meaning (Gilpin & Murphy, 2008). In a rapidly changing and ongoing stream of crisis communication and activities, the actors might settle for “circumscribed accuracy” (Weick, 1995). Circumscribed accuracy refers to the construction of shared understanding where perfect accuracy of sense making is not fully possible. Due to the complex context that is consistently changing, the final aim is plausibility, an understanding that makes sense and allows the continuation of communication, not implying the absence of differences or friction among actors (Wei Choo, 2001; Weick, 1995).

The alignment of frames seems to be a phenomenon that is specific for crisis situations or something that is accelerated by the occurrence of a crisis. General

framing literature shows how, in a competitive framing environment, frames are normally dissimilar among different actors (Snow et al., 1986). Nevertheless, there are some exceptional cases where societal issues are not discussed in the same way as years ago and a largely shared consensus is reached on them, making some interpretations and frames more rare. Despite that there are examples of forms of frame alignment in the long run, or at least some frames become uncommon, under normal circumstances frame variation generally is the norm (e.g., McCammon, 2012). However, in the context of crisis research, previous studies show comparable patterns of accelerated alignment as observed in this dissertation. Similar evidence of consensus in framing over time among separate actors was found in the context of the French riots in 2005 (Snow, Vliegenthart, & Corrigan-Brown, 2007), H1N1 flu-pandemic crisis in 2009 (Liu & Kim, 2011), the financial crisis in 2008-2009 (Schultz & Raupp, 2010), BP oil spill crisis in 2010 (Schultz et al., 2012), the explosion of a chemical plant in 2011 (Van der Meer & Verhoeven, 2013), and Max Havelaar's reputational crisis in 2012 (Van der Meer, 2014). Therefore, it can be argued that the alignment of separate frames is an extraordinary occurrence that can be advanced or accelerated by external circumstances with a low-probability of occurrence and potentially negative consequences, namely the emergence of an organizational crisis.

News media as central actor

In the communicative interplay in times of crisis, news media seem to obtain a central role. Especially the findings from the studies presented in chapter two and four point toward this direction. In the study presented in chapter two, PR professionals were found to experience the most pressure from news media and their journalists after their own management when their organization undergoes a crisis. Additionally, pressure from news media was found to have the strongest negative effect on the organization's relationship with this specific stakeholder compared to other internal and external stakeholders. The study presented in chapter four showed the importance of news media as a source for the public's online crisis communication and framing. Although the public mainly used other members of the public as a source for crisis information, the content analysis reported that the usage of news media as an information source was most significant and powerful in explaining the frame functions addressed by the public. The vignette study of this chapter also showed the public's preference for crisis information provided by the national news media. In sum, the organization and the public perceive the media to be leading or central in the communicative dynamics of a crisis.

The central role of news media during a crisis offers opportunities and comes with certain responsibilities. First, news media, as a directive actor, can have a soothing effect during such hectic situations. Early and exhaustive communication of validated information can reduce or limit confusion or panic amongst the public (Van der Meer & Verhoeven, 2013). In this vein, the public and other involved or duped actors might assess the information presented in the media as conclusive and directional. This decisive information can in turn guide people's understanding and how they should act upon the situation. Actors' reliance on news media at

crisis times might optimistically imply that news media operate as an objective and balanced information provider, fulfilling its democratic function during critical situations. Second, the central position of the media in times of crisis amplifies the gate-keeping role. As the coverage of a crisis has potentially far-reaching consequences, the validation of information becomes crucial. If media coverage is accurate it can potentially reduce things such as public panic or organization's undoing as caused by the crisis. However, when information is incorrect, panic may break out and the crisis can escalate uncontrollably (Weick, 1988). Especially in today's digital and social media age the role of the media is crucial. The public has multiple information sources at its disposal that provide unfiltered and unverified information that can easily be obtained and shared online (Chung et al., 2012). Hence, false information and rumors can easily determine how the crisis is understood. The role of the media is to intervene and rectify the inaccurate information and provide comprehensive understanding of what is going on and how to act. In doing so, news media can help to stimulate the collective understanding of a crisis as a step towards solving the crisis.

Based on the observed media centrality one could argue for the mediatization of communication at times of organizational crisis. The outcomes of mediatization as an aspect of modernization hold that, news media, as an independent institution, shape and frame the communicative processes within societies (Lilleker, 2006). The development and growth of media have made institutions at least partly dependent on mass media. Society has become saturated by the media, institutions can no longer be thought of separated from the media (Hjarvard, 2008). So far, mediatization is a theory predominantly applied for understanding the processes and discourses within the realm of political communication. Arguably, an organizational crisis can also be described as a mediatized situation. The evolution of a crisis and how involved actors communicate about the crisis is possibly to a high degree influenced by and adjusted to the demands of news media in their crisis coverage (Ihlen & Pallas, 2014; Strömbäck, 2008). People are more dependent on events as well as processes beyond their reach, and therefore dependent on the media for information about events such as a crisis (Strömbäck, 2008). Mediatization is especially suited as a theory to understand crisis communication compared to mediation theory. Mediation is a more static and descriptive concept that describes news media as the most important information source for people and approaches media as a vehicle of communication. Mediatization, however, recognizes the interdependency and interaction of media systems with other institutions and actors as well as reciprocity in media effects beyond unidirectional or asymmetric content-based effects on the level of the individual (Kepplinger, 2007; Strömbäck, 2008). Due to the recognition of interdependencies, mediatization theory might theoretically capture the dynamics of modern crisis communication processes. Therefore, this theory can be considered an applicable conceptual approach to further explore organizational communication while acknowledging the reciprocal relationship with news media. Moreover, (critical) organizational events such as crisis situations can be approached as being mediatized situations due to the centrality of news media in the communicative interplay at these times.

What makes crises different?

The sudden and unpredictable nature of a crisis situation can disrupt continuity and daily practice (e.g., Fleischer, 2013; Sorribes & Rovira, 2011). This dissertation adds to the understanding of how crises are disruptive by means of showing how the communicative dynamics and processes are altered by the occurrence of a crisis. The studies in this dissertation observe how crises accelerate, scale up, and amplify communication processes. Already in the first couple of hours, the occurrence of a pressing and acute crisis situation results in extensive communication, visible both online and offline. The content analyses, presented in chapter one and four, report extensive media coverage of and public online attention for organizations that are normally not considered newsworthy. Part of this increased interest comes from the fact that a crisis and its impact are considered dramatic and therefore newsworthy (Galtung & Ruge, 1965). Additionally, as both news media as well as social media enhance and facilitate actors' involvement in events beyond their reach, crises have evolved from a direct crisis for those actors directly involved to a concept of perceived crisis by a larger network of actors.

Besides that the occurrence of a crisis can accelerate the flow of communication, it can also affect the communicative interaction or interplay among actors. The pressing and critical external circumstances force involved actors to interact and work towards a solution. Actors are 'thrown into' a situation and are required to somehow work together to make sense of it (Gilpin & Murphy, 2008; Weick, 1995). However, as previously discussed in this chapter, the four studies presented in this dissertation show how the actors are dispersed from the beginning. In the initial phase of the crisis, communication is accelerated and enlarged only within the domains and not between the domains. Apart from the increase in communication, the communicative isolation of different actors is not necessarily different from what can be expected under normal circumstances. However, over time, the occurrence of a crisis breaks this pattern. The crisis triggers and accelerates collective sense making activities as it is characterized by high information load, complexity, and turbulence – i.e., instability and randomness (Weick, 1995). Weick (1995) describes these particular characteristics as the three triggers for the need of shared sense making.

Some additional differences caused by the crisis were observed on the individual level of the actors. In chapter two, PR professionals were asked to respond to several concepts for both normal times and for when their organization would experience a crisis. On average, in times of organizational crisis the pressure from external and internal stakeholders – i.e., news media, the public, the management, and other employees – as perceived by PR professionals is significantly higher than under normal circumstances. Moreover, the organization's relationship with the four key actors is significantly weaker at times of crisis. Finally, PR professionals perceive a strong increase in time pressure and uncertainty during a crisis. Chapter two addresses the role of the journalists at times of organizational crisis but does not directly compare crisis times with routine times. However, when comparing the findings with journalistic literature regarding routine circumstances several assumptions about situational differences can be made. In short, the findings imply that the

disruption of the crisis results in journalists' predispositions towards familiar sources. During a crisis, journalists have the tendency to rely mainly on news agencies as a source for information and disregard certain other sources like the organization and the public. The findings presented in chapter four also provide some insights into how the public's information gathering is altered by the occurrence of crisis. The public's habitual use of other members of the public as a source of information did not predict the selection of this source during a crisis. This behavioral habit might be altered by a change in the public's daily routine and increase of information need occasioned by the crisis. The public might look for any information available. As the public is often readily available as a news source via platforms as social media, the tendency to use this source might increase during a crisis.

Theoretical implications

The findings of this dissertation have important theoretical implications and contribute to the development of theory with regard to communication at times of crisis. First, the contribution lies in the investigation of crisis communication from the perspectives of different theoretical fields, recognizing the communicative role of multiple actors. In this way, the chapters propose a new theoretical framework that makes the first step to empirically evaluate crisis communication from multiple angles. The studies presented in the dissertation show that theories extrapolated from the fields of mass media, political communication, and journalism can be applied to further understand how crises develop over time. Using theories as framing and gatekeeping helps to enrich scholarly knowledge of the role of key actors at times of crisis and acknowledges the complexity of crisis communication (Schultz et al., 2012).

Second, the research presented in this dissertation extends the results of previous studies by relying on units of analysis that provide additional insights. Both the studies presented in chapter two and three directly questioned professionals with personal experience and substantial responsibilities in crisis communication. By questioning PR professionals (chapter two) and journalists (chapter three) the survey findings are based on real-life experience and the perception of professionals or experts. In doing so, these studies add to crisis literature that mainly relies on findings from experimental studies applying artificial setups. Furthermore, crisis research is often criticized for focusing only on one specific crisis type, limiting the generalizability of findings especially as no organizational crisis is the same (Coombes, 2007). In order to overcome this limitation, the content analyses presented in chapter one and four and the vignette study in chapter four focus on multiple crisis cases. Subsequently, fundamental patterns and processes of accelerated communication and changing interactions that might transcend crisis type were identified. The exposed results are therefore not too context specific or issue sensitive to draw conclusion on the general level of crisis communication. These observed patterns are considered specific for crisis situations and potentially hold for other crises. Further research should of course validate this expectation.

Methodological implications

This dissertation also has important methodological implications. First, a strong need for new methods exists in today's information society to analyze huge collections of texts and understand the complex dynamics of the contemporary media landscape (Neuman et al., 2014). Especially in times of crisis a need occurs for larger scale of analyses to explore the increase in communication. This dissertation (chapter one and four) introduces and applies automated content analyses to quantitatively assess crisis communication. The studies successfully apply different types of automated cluster techniques to identify frames or frame functions and assess the level of frame alignment. These tools are known as Fully Automated Clustering analysis that statistically rely on interpreting word (co-)occurrences to inductively classify texts. With the application of computer-assisted methods the classification of texts becomes more replicable and is more likely to be without bias due to subjective interference of the researcher (Riff, Lacy, & Fico, 2014). This novel methodological approach may stimulate empirical investigation of large-scale data from multiple actors with reduced costs and time (Flaounas et al., 2013). Furthermore, these automated content analyses can help to provide supplementary evidence for what crisis scholars so far have suspected based on qualitative or small-scale quantitative research.

Second, the vignette design as applied in chapter four provides a useful approach to overcome shortcomings in crisis research related to studying single crisis cases. Such a factorial survey is a quasi-experimental design where respondents are asked to judge descriptions of varying situations (vignettes) presented to them (Dümler, 2007). The vignettes represent different combinations of various dimensions that are simultaneously manipulated (Alexander & Becker, 1978; Helfer & Van Aelst, 2015). A vignette study allows the analysis of judgment behavior under concrete conditions that are considered much closer to real-life judgment situation compared to opinion surveys (Wallander, 2009). Judging several comparable, but not identical, situations allows decomposing the structure of judgment-making or evaluation behavior and helps to systematically uncover the impact of different manipulated factors (Dümler, 2007). This procedure gives the research the option to show and compare multiple crisis cases and crisis elements as was done in the second part of the study presented in chapter four. Despite the advantages associated with using vignette design, this approach has only occasionally been used in social science field such as political science (Helfer & Van Aelst, 2015; Hopkins & King, 2010) and journalism (Kepplinger, Brosius, & Staab, 1991).

Third, the triangulation as applied in this dissertation shows how the combination of multiple methods can advance the understating of one specific subject. By relying on survey, content analysis, and experimental methods this dissertation provides rich findings and obtains more convincing insights as the methods lead to comparable results and because no contradicting findings were observed. The cross verification from different methods and analyses helps to validate the findings regarding the evolvement of communication at times of crisis and provides complimentary and partly overlapping insights. Moreover, the complementary multi-method design can help to overcome shortcomings and weaknesses that come from single methods.

Practical implications

Along with the theoretical contributions, the studies presented in this dissertation provide several practical implications. The findings of this dissertation might help to improve the communication during these critical times, which in turn might help to reduce the negative consequences.

First, all actors involved in an organizational crisis should acknowledge the importance of communication and therewith the role of multiple actors. The availability and willingness of actors to communicate can determine the development of a crisis. Timely communication becomes important due to the fast-moving nature of a crisis and in order to avoid that the actors move too far away from each other. By means of early communication, actors may advance the collective understanding of the crisis and provide an adoptable crisis frame or discourse. This might accelerate frame alignment among the actors as an important step towards solving the crisis. The notion of timely communication relates to the concept of stealing thunder. This notion suggests that when an organization experiences a crisis it should break the news about the crisis before it is discovered by other interested parties like news media (Arpan & Pompper, 2003; Arpan & Roskos-Ewoldsen, 2005). This proactive approach to crisis communication might enhance credibility ratings for the organization and can potentially set the tone of the rest of the communication. However, it should be recognized that early communication does not mean directly affecting the framing and understanding of other actors. Understanding the crisis is a collective process of sense making and is not characterized by sense giving practices, a sense making variant undertaken to create meanings for a target audience (Weick et al., 2005). Actors cannot force others to understand the crisis in the same way but should look for interaction to come to a collective understanding.

The findings of this dissertation furthermore provide actor-specific implications. First, the organization and the PR professionals can learn from the findings in terms of improving and targeting their communicative efforts. Study three shows how organizations can improve their chances of getting a voice in the news. Elements as timely communication, knowledge, and credibility are emphasized. However, an organization should not overdo it. When an organization is too pushy to get their story across, it decreases its chances of being included in the news. Being too willing might trigger journalists' skepticism towards the organizations' motives and agenda. Instead of getting their frames and content as intended in the news and on the public agenda, the organization should focus more on the relationship with its key stakeholders to facilitate two-way communication.

Moreover, this dissertation emphasizes the role of social media at times of crisis. This observation argues that organizations no longer have a choice about whether to integrate social media into their crisis communication. In times of crisis, when stakes are often high, it is especially important for organizations to interactively and proactively communicate in order to meet the public's communicative expectations online (Jin et al., 2014). Therefore, it is highly surprising that only a small percentage of organizations have formal social media policies and most PR professionals do not see social media as an effective channel (Jin et al., 2014). Despite a plethora of attention to social media in the context of public relations,

researchers should provide more evidence-based guidelines to understand how organizations should integrate social media. It is important to realize that these new communication technologies are dominated by user-generated content. This phenomenon means that the organization is not in control of communication, other actors active online are controlling the flow of communication (Coombs, 2015). Therefore, basic ideas from traditional media relations do not apply in the dynamic environment of social media. These channels are more about interaction, listening, and transparency rather than feeding information.

Furthermore, the dissertation also provides practical implication for news media and the public. First, news media and their journalists should be aware of their responsibility as gatekeepers in times of crisis. News media become a central actor in defining a crisis. The public has a preference to rely on information provided by news media to understand what is going on. News media's influence increases during a crisis and the content they spread has potentially more impact than under normal circumstances. Additionally, journalists should recognize their tendency to rely on other news media (i.e., news agencies) as a source of information and realize how this can potentially result in unbalanced crisis coverage. Second, also the public should understand their role in crisis communication and how they can affect the development of such a critical situation. During a crisis, rumors or false information can spread in no time via platforms as social media. As these online messages are often the first information available they can form or alter the initial crisis understanding of thousands of individuals. The public is subsequently advised not to blindly trust all crisis information they find online. The public should recognize how easily widespread panic or crisis escalation can be caused by the diffusion of unverified information.

Future research and limitations

This dissertation is considered an important step for crisis research into understanding the more complex dynamics of communication during critical crisis times. However, the results and set-up of this dissertation lead to a call for additional research. First, this dissertation focuses exclusively on the interplay among the organization, news media, and the public. As all four studies are limited to the inclusion of these three aggregated actors, the perspectives of other more specific actors are for now disregarded. Therefore, future research should delve into the role of other significant actors such as political actors, experts, governmental actors, shareholders of the organization, financiers, stockbrokers, NGO's, environmentalists, and online and offline communities. Nevertheless, the three actors studied in this dissertation are considered the key actors in communication when a crisis occurs (Kleinnijenhuis et al., 2013; Riegert & Olsson, 2007). The findings in chapter two and four supported this assumption. PR professionals indicated that these three actors are the most essential during a crisis (chapter two) and the public was found to most prominently use these actors as information sources to online frame the crisis (chapter four).

Second, because this dissertation finds its origin in the field of corporate communication and public relations, the empirical studies focus on the occur-

rence of organizational crisis situations as a specific type of crisis. In each crisis situation discussed in the four studies, an organization was central to the crisis or responsible for its occurrence. Because different types of organizational crises are analyzed, the findings and observed patterns might hold among most types of organizational crises. However, the remaining question is if these findings can also be generalized to crises in other fields. For example, when a political party or figure undergoes a crisis, the question is if the same phases of frame deviation and frame alignment will hold in the communication among involved actors. Furthermore, future research should show if more long-term crises show different or comparable communicative patterns over time. The crises as analyzed in this dissertation often hold for a couple of days or weeks. However, other crises develop over a longer time period and remain a pressing item on the agenda of news media and other crisis-related actors. As an illustration, the ongoing economic and financial crisis in Europe is characterized by a long period of continuous uncertainty and threats for different levels of society. Future research should examine if the same patterns as observed in this dissertation might be applicable for these long lasting crises spread out over a longer time period.

Despite these limitations, this study provides a solid starting point for understanding the complexity of communication at times of crisis. By analyzing the interplay among the organization, news media, and the public for multiple organizational crises, initial insights are provided into how a crisis, as an external circumstance, changes the flow of communication and the interplay among key actors.

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