

Introduction to Crisis Communication Theory

Crises are increasingly important social, political, economic and environmental forces and arguably create more change more quickly than any other single phenomenon. Crises have the potential to do great harm, creating widespread and systematic disruption. But they may also be forces for constructive change, growth and renewal. They can quickly reshape institutions, create shifts in demographics and populations, alter ecosystems, undermine economic stability and change widely held beliefs. Understanding these events, therefore, is critical. A significant component of that understanding involves clarifying the role of communication processes in the onset, management, resolution and meaning of crises.

Recent examples, including the 9/11 terrorist attacks, Hurricane Katrina and the 2004 Indian Ocean tsunami, illustrate the rapid change that happens following a crisis. The events of 9/11 precipitated not only a fundamental rethinking of federal policy but also created the most comprehensive reorganization of the US federal government to occur in

decades. Hurricane Katrina saw a major demographic shift in New Orleans and created new understandings of risk and the role of governments in response to disasters. The 2004 tsunami claimed as many as 230,000 lives in 14 countries, wiped away entire communities, and created widespread economic and environmental damage. It also called attention to the risks associated with tsunamis and development in coastal areas. Historically, the worst crises have been earthquakes and infectious disease pandemics. The 1918–1919 influenza, or Spanish flu, pandemic is estimated to have infected 500 million people worldwide and may have resulted in more than 20 million deaths. The worst earthquake of the twentieth century occurred in Tangshan China in 1976. Official death tolls indicate that about 255,000 people lost their lives and another 150,000 were injured. Crises, big and small, natural and human-caused, are inevitable; in fact, many scholars suggest that they are occurring with greater frequency and causing more harm than they have in the past (Perrow, 1984; Seeger, Sellnow and Ulmer, 2003).

While it is impossible to avoid all crises and disasters such as earthquakes and tsunamis, some can be avoided and most can be more effectively managed. Crisis management is a well-established practice drawing on a variety of fields including medicine, sociology, psychology, engineering, logistics, political science and criminal justice, as well as communication. Agencies, both public and private, such as the Federal Emergency Management Administration (FEMA) and the Red Cross, have a critical role in creating crisis response capacities. Crises are by definition interdisciplinary events and often reach across regional, cultural, economic and political boundaries. Some researchers have pointed out that this interdisciplinary aspect has made integration of research and practice more challenging (Pearson and Clair, 1998). Along with communication, integration, coordination and cooperation are critical to negotiating these boundaries and to effective crisis management and response.

Crisis communication theories problematize the messages and meaning construction process in all forms of human interaction and coordination that surround these threatening and high uncertainty events. Because crises are, by their nature, unpredictable, theorizing about them creates many challenges. In some ways, every crisis may be seen as an entirely anomalous and unique event that, by definition, defies any systematic explanation. It is common to see a crisis as just an accident, an unusual combination of events that could not happen again. Conversely, the fact that crises occur at an increasing and alarming frequency allows scholars to observe similarities, patterns and relationships

across many occurrences. Many theoretical crisis frameworks described throughout this book were developed for specific types of events, including warning theories and evacuation models for hurricanes and recall models for contaminated food (Chapter 3). In many cases, scholars have also found that these approaches have utility for understanding other kinds of crisis. Increasingly, efforts are directed toward developing broader, more encompassing theories, using what is sometimes called an all hazards approach. This approach begins by understanding that all events described as crises will have some common elements, such as threat, uncertainty and the need for an immediate response, and that common response contingencies will be required.

Crisis research and theory has been driven largely by crisis management practice. Initially, practitioners sought to develop frameworks and models to promote understanding and improve their practice. After analyses and critiques of their responses, managers often developed action reports which would then be used in subsequent training and planning for future events. These efforts began to reveal patterns and relationships that eventually led to more general theoretical frameworks and systematic research. These experience-based approaches eventually evolved into formal case studies, which remain the dominant methodology used for studying crises. For the emergency manager, the primary communication issues relate to coordination of efforts and logistics and public warnings and notification. Thus, communication technologies, such as 800 megahertz radios, web based systems, warning systems such as sirens, and mass media alerts such as the emergency broadcasting system, have been the primary focus for improving communication. More recently, social media such as Twitter and Facebook have become important tools for crisis communication.

Case studies have been enriched as scholars have combined them with survey questionnaires and ethnographic techniques. Survey data have contributed significantly to understanding audience needs and interests. Ethnographies have helped capture the complex and often devastating experiences of people living through crises. In addition to case studies, laboratory based research including simulations and experiments have been used to test specific hypotheses, thus contributing to the refinement of crisis communication theory. These include investigations of attribution for the causes of crises, examinations of how audiences respond to crises, and tests of the effectiveness of various message forms. Critical methodologies have been employed to develop more general frameworks of crisis communication, including rhetorical approaches.

In this chapter we argue there is a critical need for the theorizing of crisis communication and the development of a wide range of theoretical frameworks for explaining and predicting crisis as well as informing practice. Crisis theory also draws on both field research and research in controlled experimental settings. Theory drives research by suggesting relationships and questions and by calling attention to gaps in our understanding.

We begin this chapter by discussing definitions of crisis, communication and crisis communication. Definitions are important elements of any theory. They provide the basic conceptual component necessary to build a theory. We also discuss theory's role and function and the various forms theory takes. Our view is that theory is a necessary component of any effort at systematic understanding. We also believe that theory is critical to practice; as noted social scientist Kurt Lewin (1951) observed, "There is nothing so practical as a good theory" (p. 169).

Defining Crisis

As with many fields of study, scholars have debated the merits of various definitions of crises. These debates are important in establishing the parameters of a field and indicating the principal components of the phenomenon. Definitions are also important components of any theory. For example, within the area of crisis studies some debate exists about the level of harm necessary for an event to qualify as a crisis. A bad snowstorm may be disruptive to a community, but may only be characterized as a crisis when it threatens public safety and property. High winds may be disruptive, but only constitute a crisis when they create property damage. In order to construct a theory of crisis, it is first necessary to ensure that the event under examination actually meets the definition of a crisis.

The FEMA uses several criteria to determine when a situation qualifies as a disaster (see Table 1.1). A disaster declaration is required for federal aid to be available to communities. These criteria allow the FEMA to assess the relative magnitude of disruption and harm created by an event. This is important to determine the amount and form of assistance a community may need.

From other perspectives, the question of the magnitude of a crisis is best understood as a matter of personal, community and even cultural perception. Coombs (2010), for example, describes crisis as a function of perceptions based on a violation of some strongly held expectation.

Table 1.1 FEMA disaster declaration criteria.

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- Amount and type of damage (number of homes destroyed or with major damage);
 - Impact on the infrastructure of affected areas or critical facilities;
 - Imminent threats to public health and safety;
 - Impacts to essential government services and functions;
 - Unique capability of federal government;
 - Dispersion or concentration of damage;
 - Level of insurance coverage in place for homeowners and public facilities;
 - Assistance available from other sources (federal, state, local, voluntary organizations);
 - State and local resource commitments from previous, undeclared events; and
 - Frequency of disaster events over recent time period.
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Source: FEMA (2011).

Food, for example, should be safe to eat and free of harmful *E. coli* contamination. It is generally expected that rivers will remain within defined areas and not spread to inundate residential or downtown areas. Seasonal influenza should be a relatively minor disorder and should not create widespread illness, death and social disruption. It is the violation of these expectations and some level of community and social consensus about the relative level of risk and threat that creates the *perception* of a crisis. When people believe there is a crisis, they are likely to behave differently than they would in so-called normal times.

Similar debates about definitions have also focused on the notion of the intentional creation of harm. For example, some scholars have argued that international conflicts between countries represent crises, while others have suggested that war itself should not be classified as a crisis although the consequences, such as the dislocation of populations, disruption of food supplies, or disease outbreaks, do represent crises. War most typically is the outcome of some extended conflict and as such is not surprising in the same way as most crises. Terrorism attacks are intentional, unanticipated and surprising, and are generally classified as crisis events. Crises represent a range of different kinds of events and this range is illustrated by various typologies of crisis. Three typologies are presented in Table 1.2.

These various crises all generally evoke the notion of some dramatic, unanticipated threat, with widespread and wholly negative impact.

Table 1.2 Typologies of crisis.

Crisis types:		
Lerbinger (1997)	Seeger, Sellnow and Ulmer (2003)	Coombs (2010)
Natural disaster	Public perception	Natural disasters
Technological crises	Natural disasters	Malevolence
Confrontation	Product or service crisis	Technical breakdowns
Malevolence	Terrorist attack	Human breakdowns
Organizational misdeeds	Economic crisis	Challenges
Workplace violence	Human resource crisis	Megadamage
Rumors	Industrial crisis	Organizational misdeeds
Terrorist attacks/ man-made disasters	Spills (oil, chemical) Transportation disasters Crises from environmental factors	Workplace violence Rumor

Events such as the Japanese tsunami and the Fukushima nuclear accident, the Challenger Shuttle disaster, the British Petroleum (BP) Gulf oil spill and the anthrax letter contamination episode represent crises. These events share three general attributes: they are largely unanticipated or violate expectations, they threaten high priority goals, and they require relatively rapid response to contain or mitigate the harm (Hermann, 1963; Seeger, Sellnow and Ulmer, 2003). Crises are almost always unanticipated by key stakeholders, although there are usually warnings signs and cues. Most often, they involve a radical departure from the status quo and a violation of general assumptions and expectations, disrupting the “normal” and limiting the ability to anticipate and predict. The severe violation of expectations is usually a source of uncertainty, psychological discomfort and stress. Sometimes the occurrences are so confusing that people simply do not know what to do and experience extreme psychological dislocation. Weick (1993) has described this response as a cosmological episode: “when people suddenly and deeply feel that the universe is no longer a rational, orderly system. What makes such an episode so shattering is that both the sense of what is occurring and the means to rebuild that sense collapse together” (p. 633).

Significant threats to such high priority goals as life, property, security, health and psychological stability are often associated with crises. These threats also create severe anxiety and stress and the need to do something – to take some action in response to the threat. This reaction is sometimes described as the fight or flight response, a natural neurological response first described by psychologist Walter Cannon in the 1920s. The primary mammalian stress hormone, adrenaline, is activated when a threatening situation is faced. This hormone produces several neurological responses, including increased heart rate, constricted blood vessels and dilated air passages. In general, these responses enhance an organism's physical capacity to respond to a threatening situation. Gray (1988) updated the fight or flight framework into a more comprehensive four-stage process of "freeze, flight, fight, and fright." Initially, an organism may exhibit a freeze response, exhibiting hyper-vigilance or awareness to the threat. The second response, according to Gray, is to flee, and if this not an option or if fleeing is exhausted as a strategy, a fight response is activated. Finally a strategy of fright, freezing or immobility may occur as the organism "plays dead" in a final effort to avoid the threat.

A third defining condition of crisis is that the event usually requires some immediate action or response by agencies and groups to limit and contain the harm. Actions such as shelter-in-place or evacuation are common for some kinds of events. During the 2009 H1N1 influenza pandemic, the Centers for Disease Control and Prevention (CDC) recommended that members of the public get vaccinations, wash their hands frequently, cover their cough and stay home when sick. These actions are mitigation strategies designed to limit the spread of the disease. In cases of contaminated products, avoiding the product is necessary to reduce harm. Power outages, heavy rains or floods often contaminate municipal water supplies. In these cases, water must be disinfected through actions such as boiling to avoid waterborne diseases. These actions usually require some communication of expert or situational advice.

We have suggested elsewhere that a crisis may be defined as a specific, unexpected, non-routine event or series of events that creates high levels of uncertainty and a significant or perceived threat to high priority goals (Seeger, Sellnow and Ulmer, 2003). This definition captures the three primary conditions of crisis and suggests a crisis may be a contained, single event, such as the April 27, 2011 tornado in Tuscaloosa, Alabama, in which 52 people died, or it may be a series of interacting and cascading events, such as the Fukushima earthquake, tsunami and

nuclear disaster. This definition also includes the idea that a crisis should be contained or specific in its parameters. Larger issues such as the ongoing health care crisis or the energy crisis would not meet this definition.

Others have offered more straightforward crisis definitions. Heath (1995), for example, suggests that a crisis is a risk manifested. From this perspective, a risk occurs before a crisis and is the consequence of a risk continuing to develop without appropriate efforts to manage it. This notion of a risk incubating, developing unchecked, and perhaps interacting with other factors is one of the most common views of a crisis “cause.” Therefore, crisis is also closely related to the concept of risk. Risk communication generally concerns “risk estimates, whether they are appropriate, tolerable, and risk consequences” (Heath, 1995, p. 257). Birkland (1968) described crises as focusing events, bringing attention to issues and setting the larger public policy agenda. Thus, a crisis can be a significant force in political and social change and may determine the actions taken by a government.

Crisis comes from the Greek *krisis* and *krinein*. *Krisis* was a medical term used by the Greek writer and physician Hippocrates to describe the turning point in a disease. *Krinein* means to judge, separate or decide. Crisis in its eastern etymology then refers to a decision point requiring a decision of judgment. The Chinese symbol for crisis, *wēiji*, sheds light on the way the term is understood in some eastern cultures. Composed of two symbols, *wēi* roughly translates as “danger, dangerous, endanger, jeopardize, perilous, precipitous, precarious, high, fear, afraid.” While there is some debate about *ji*, it may sometimes mean “opportunity” and may also mean “a crucial point” (Mair, 2010). According to this translation, *wēiji* may refer to a dangerous situation and a crucial point.

Closely associated with efforts to define crisis is the question of what causes a crisis. A number of perspectives have been offered to explain the cause of crisis (see Seeger, Sellnow and Ulmer, 2003, pp. 12–15). These include faulty decision-making, oversights, accidents, natural changes and unanticipated events. These causes may be summarized in three categories: (1) normal failure and interactive complexity; (2) failures in warnings, faulty risk perception and foresight, and (3) breakdowns in vigilance (Seeger, Sellnow and Ulmer, 2003, p. 12).

Normal accident theory (NAT) describes the ways in which normal, routine failure may lead to catastrophic crises. Developed by the sociologist Charles Perrow (1984), NAT emphasizes the interactive complexity that develops around larger-scale socio-technical systems. Large

systems, particularly those built on industrial or even societal scales, typically are technologically intense, but on successive levels of technology, and create very high levels of complexity. The North American east coast electrical blackout of 2003 involved the interaction of environmental conditions (a very hot day and peak demand), inadequate maintenance in the form of tree trimming, a software bug, operator error and an electrical grid that was very highly integrated. The result was a loss of power to 55 million people in eight US states and in Ontario, Canada. Perrow (1984, p. 72) notes that failures such as these are characterized by interactiveness and tight coupling. Interactivity simply means that one system, or subsystem, impacts another. In the case of the blackout, peak demand and hot weather caused transmission lines to expand and come into contact with trees that had not been trimmed. When systems become overly complex, managers cannot anticipate these interactions. Most so-called natural disasters (floods, hurricanes, tornadoes) involve the interaction of natural phenomena with human systems (dams, levees, building codes and housing developments). Tight coupling occurs when there is “no slack or buffer between two items” (Perrow, 1984, p. 90). Managers thus have little time or ability to correct. Quite literally, there is no room for error. Perrow’s work has been highly influential in the development of crisis theory. Among other things his work predicts that as society becomes more complex, more crises will occur. Thus, accidents are becoming more and more normal. The FEMA (2012) reports that federal disaster declarations have been steadily increasing since 1953. In 1953, there were 13 such declarations and in 2011 there were 99, the highest number ever recorded in a year.

A second but related view of crisis is that they are caused by failures in warnings, faulty risk perception and foresight. This view follows the logic that when a risk or threat can be anticipated, it can be avoided. Turner (1976), for example, suggested that a crisis is an “intelligence failure” or a “failure in foresight” (p. 381). Risks are often poorly understood or poorly communicated. Sometimes the signals of an impending crisis are not accurately interpreted, or not assembled in ways that allow managers to connect the dots. Many crises, such as the Bhopal, India/Union Carbide disaster, the New Orleans/Hurricane Katrina crisis, and the Exxon Valdez oil spill, can all be understood as failures to perceive, understand or appropriately communicate risks.

A third view of crisis cause suggests that these events occur when vigilance breaks down. This view of cause was initially popularized by the concept of groupthink, developed by Janis (1972). According to this theory, decision systems, such as small groups, sometimes develop

pressures to conform and reach consensus and a sense of invulnerability; these reduce their ability to evaluate information critically and assess risk. Faulty decision-making characterizes many crises, including the collapse of Enron and the 1986 Challenger Shuttle disaster. These faulty decision systems and breakdowns in vigilance are often reflected in what Clarke (1999) described as fantasy planning. Disaster plans are often based on wildly optimistic assumptions and have little hope of actually working. Clarke describes such plans as rhetorical documents designed primarily to convince the public that technologies are safe and that appropriate precautions have been taken.

Although there is general consensus about what constitutes a crisis, there is almost always debate about what, and who, caused a crisis. Issues of causality are related to responsibility, accountability and often liability. Therefore, as discussed in Chapter 7, strategic portrayals of blame, cause and responsibility tend to dominate the discourse following a crisis. It is also important to recognize that the term carries considerable semantic weight and thus is used strategically to call attention to issues. Defining an issue as a crisis means that some action must be taken in response and that resources should be made available. Sometimes there is public disagreement regarding whether a situation constitutes a crisis, with advocates hoping to make the issue part of the public agenda precisely because it is a crisis.

Defining Communication

As with the definition of crisis, scholars have also wrestled with definitions of communication and have offered a variety of competing views (Littlejohn and Foss, 2011). Traditional and classical notions of communication have tended to be more static and to emphasize the role of the sender in a process of distributing messages to receivers. Receivers were largely seen as passive participants who are assumed simply to accept and act upon the message. The best-known formulation of this approach is Berlo's (1960) sender–message–channel–receiver model. This model creates a straightforward linear view of communication. This perspective also dominated many early emergency communication conceptualizations and tended to frame crisis communication as a unidirectional process of issuing warnings or alerts through systems such as the emergency broadcast system or community based weather sirens.

As the field of communication developed, a broader set of concepts were used to describe a much more dynamic and transactive process. In these formulations, participants are described simultaneously as senders and receivers, transacting and co-creating meaning through the ongoing and simultaneous exchange of a variety of messages using multiple channels. One of the best examples of this approach is Barnlund's (1970) transactional model, initially developed as a theory of interpersonal communication. This approach emphasized the view that communication is a complex process that is dynamic, continuous, circular and unrepeatable. Communication involves encoding and decoding systems, ongoing feedback loops and the ongoing co-creation of meaning.

Other views of communication emphasize different aspects of the process and many of these conceptualizations have direct application to communication in crisis contexts. Dance (1967), for example, argued that communication is both dynamic and cumulative in that it is heavily influenced by past experiences. Thus previous experiences of crises influence the interpretations and communicative choices one makes. During the response to Hurricane Katrina, for example, the agencies responsible for crisis management made mistakes that damaged their reputations. This undermined their credibility, making subsequent efforts more difficult. Cushman and Whiting (2006) develop a framework that suggests that much of the meaning is created through the rules governing the communication process. During a crisis, some of these rules may no longer function and involve new actors in new contexts; thus, communication may become more complex and less effective. In other cases, new rules may surface or be imposed, influencing how meaning is created. Many theorists emphasize the symbolic nature of the process. Communication relies on symbols or an arbitrary but agreed-upon system of labels and representations that carry or encode the message and connect the message to larger systems of meaning. During crises, symbols, such as warning signs and sirens, can play an important role. In fact, many crises, like 9/11, become their own meaning systems, conveying values, ideologies and specific views of power.

Ultimately, communication is about the construction of meaning, sharing some interpretation or consensual understanding between senders/receivers, audiences, publics, stakeholders or communities. Scholars differ on the locus of that meaning. The mass communication theorist Marshall McLuhan (1964) offered the view that the medium is

the message, suggesting that any technology (medium) used to distribute meaning directly affects the meaning that arises. Thus, the warning siren becomes the message.

Contradicting this view are the general semanticists who argue that meaning is in people's interpretation of symbols, and thus exists in the communicators' cognitive processes. People who have experienced the pain and trauma of a disaster, for example, carry an interpretive system of meaning associated with disasters that is not available to others. Communication can also be understood to occur within a larger ecology (Foth and Hearn, 2007, p. 9). This may include the media used, relationships, networks, history and the larger social, political, cultural and economic context. Communication both influences and is influenced by the context and ecology. Crisis, for example, creates a specific context, which influences communication activities, and the communication activities also influence the context. Digital communication technology, including social media and handheld devices, has significantly altered the ecology of crisis communication. Some researchers argue that these technologies have repositioned those who are at the center of the crisis as active sources and senders of information rather than as passive receivers (Pechta, Brandenburg and Seeger, 2010).

Finally, communication scholars have also described the functions of communication. These approaches, such as functional decision theory (Gouran *et al.*, 1993) and media uses and gratifications theory (McQuail, 1983), emphasize the instrumental nature of communication; that is, communication allows for the intentional creation of certain outcomes. Functional approaches focus on the results or outcomes of communication behaviors and processes. This perspective sees communication as a tool used by senders and receivers to accomplish goals, solve problems, make decisions, influence others and coordinate actions. Communication may be more or less effective in accomplishing these outcomes depending on its structure, how it is used, what audiences it targets and what channels are employed, among many other factors. Managing a crisis often requires the cooperation of various agencies, groups and community members. In many cases, this cooperation requires communication; thus communication is an instrument of cooperation.

Dance and Larson (1976) describe three broad functions of communication: (1) regulating the behavior of self and others; (2) linking individuals with others and their environment; and (3) developing higher mental processes and capacity. Regulating behavior primarily through persuasive processes is a fundamental communication function and

represents an important tradition in communication inquiry extending back to the Greek rhetoricians. In fact, some views suggest that all communication is persuasive. Linking functions include both information exchange and linking to one's environment, but also the development of relationships. Information about the environment is necessary to make choices about how to behave. Finally, Dance and Larson suggest that communication processes are closely associated with cognitive processes and capacity. In other words, communication is an epistemology, a way of knowing and thinking. We have suggested that this functional approach may be particularly useful in understanding the communication activities associated with crisis management. These are outlined in Table 1.3.

The functions listed in Table 1.3 suggest that communication is associated with a wide range of instrumental outcomes during a crisis. These functions are critical to effective response. For example, communication is necessary to persuade people to prepare a personal crisis plan. In fact, the website Ready.Gov promotes preparedness through a public communication campaign. A successful communication of evacuation notices is necessary to manage the harm of floods, hurricanes and some forms of toxic spill. Public health officials sometimes describe communication as a form of "social Tamiflu," referring to the antiviral medication used to treat influenza. Communication is the primary means by which public health officials can influence the public's behavior in ways that can limit the spread of this infectious disease.

Definitions of communication have evolved and developed as the field of communication has developed and has become more interdisciplinary (Littlejohn and Foss, 2011). Given this range of definitions and concepts, and the complexity of communication, is it possible to define crisis communication? Crisis communication could simply be understood as the ongoing process of creating shared meaning among and between groups, communities, individuals and agencies, within the ecological context of a crisis, for the purpose of preparing for and reducing, limiting and responding to threats and harm. This definition points to the diversity of communicators involved, both senders and receivers, and the instrumental and functional elements of communication during a crisis. Beyond this definition, however, is the fact that communication processes are sensemaking methodologies allowing individuals, groups, communities and agencies to co-create frameworks for understanding and action even within the highly uncertain, demanding and threatening context of a crisis. These events shatter the fundamental sense of normalcy, stability and predictability we all count on in living our daily lives.

Table 1.3 Functions of crisis communication.

Environmental scanning and spanning	(Monitoring and maintaining external relationships: collecting information, building relationships with external stakeholders) Sensemaking of information Issue management Spanning agency, organization and community boundaries Risk communication
Crisis response	(Planning for and managing crises) Uncertainty reduction, providing information and interpretations, warnings, evacuations notices, product recalls Coordination with key stakeholder and response agencies Information dissemination Promoting strategic ambiguity
Crisis resolution	(Restructuring, repairing and maintaining relationships after a crisis) Defensive messages Explanatory messages Image restoration Renewal Grieving and memorializing
Organizational learning	(Emerging from a crisis with enhanced knowledge, relationships and capacity) Dialogue Networks and relationships Understanding and norms

They are disruptive, confusing, shocking and intense events, and making sense of them and reestablishing some new normal requires communication. Crisis communication processes are also made significantly more complex by the diversity of audiences, cultures, backgrounds, experiences, new technologies and forms of crises. In addition, effective communication in these cases can literally be a life and death matter. Understanding the role of communication in these events, therefore, is critical.

Theory

Arguably, theory is the most important tool researchers have for building broader understanding of phenomena. Theory is also a widely misunderstood concept, often interpreted as denoting an esoteric and generalized abstraction that bears no relationship to reality. This is reflected in the common statement: “Well, that’s all well and good in theory, but it doesn’t work in reality.” Theory by definition must be related to the reality it seeks to explain; in its most basic form, a theory is simply an explanation created for something that needs further understanding. Theory is an abstraction of reality, a way of framing, modeling and understanding what is observed to be happening (Littlejohn and Foss, 2011). By explaining the reality of what is observed, theory can be used to inform practice. On the one hand, formal theory can be quite rigid in its efforts to describe a formal system or proposition framed in a way that allows for developing specific predictions, testing and validation. On the other hand, a theory can be as simple as an individual’s expectation based on experiences. These lay theories are formulated by all of us and help us explain, organize and make sense of the world we experience. Theories, formal or informal, are simply sensemaking devices, sets of concepts, definitions or ideas that allow individuals to organize observations in ways that account for the observations they make about the world.

While there are many formal definitions, such as those presented in Table 1.4, at some level the very straightforward “If A then B” proposition underlies most formal theories. For example, a basic crisis theory might propose, “If a condition is perceived to be a crisis (A), then people will experience high levels of uncertainty (B).” This theory does not necessarily propose that all people will feel uncertainty or that all crises will produce high levels of uncertainty. A theory is never “proven” as a universal law covering all cases, particularly when considering human behavior, in which so many factors may interact. What this proposition does suggest is that as a general principle, crises are characterized by uncertainty. It is then possible to follow the initial proposition with a second: “If people experiencing a crisis feel high levels of uncertainty (A), then they will seek out information (B).” This is an example of how theories can be systems of propositions.

This example illustrates some of the functions of theory (Table 1.5). The first function of theory is to organize a set of observations. One of the most striking behaviors people exhibit upon experiencing or

Table 1.4 Three definitions of theory.

“A theory is a description of concepts and specification of the relationship between or among those concepts” (Baldwin, Perry and Moffitt, 2004).

“A theory is a set of interrelated constructs (concepts), definitions, and propositions that present a systematic view of phenomena by specifying relations among the variables, with the purpose of explaining and (or) predicting the phenomena” (Kerlinger, 1986).

“Theory is a tentative explanation invented to assist in understanding some small or large part of the ‘reality’ around us. Ideally, theoretical concepts are measurable and propositions testable and therefore subject to refutation” (Donohew and Palmgreen, 2003).

Table 1.5 Functions of theory.

Organize observations of a phenomenon or sets of related phenomena;

Describe what is observed;

Explain the relationships between constructs;

Predict what will happen in a particular circumstance;

Control the outcome when it is possible to predict;

Inform practice by helping people understand what is happening;

Facilitate critique by promoting understanding of what can happen;

Promote inquiry and research by helping investigators form questions;

Promote other theory building by proving related insights.

learning about a crisis is an attempt to find a television or radio for a news report or a website for more information. These observations about crisis behaviors can be organized in an “If A then B” proposition that allows for a second function: to explain some phenomenon or something that needs explanation. It may not be immediately clear why people experiencing a crisis are talking on their cell phones, texting friends, meeting in small groups or spending time on the web. The propositions described above provide an explanation for that behavior. A third function of theory is to predict what will happen in a particular situation. If we know that A is followed by B, then it is possible to

predict when B will occur. Crisis managers, for example, know that in a crisis the public will have an intense need for information and will seek it out from any available source, usually an immediate source such as radio, television or the web. Crisis managers also understand that if they do not provide the information and meet the informational needs of the public, other often less credible sources will fill the informational void. The fourth function of a theory is to help exert some control over behavior by informing practice. By providing immediate, credible and easily accessible sources of information to people who are experiencing a crisis, managers can reduce uncertainty and anxiety and influence the messages received by the public. Creating some sense of control and thus order is critical during a crisis. Finally, a theory can help guide research by creating questions that can be tested and by generating new theories. Theory guides research by pointing to the questions that need to be answered and by putting them in a form that can be answered. Once research is completed, the results can be placed in the theoretical framework to refine the propositions further, or in some cases to demonstrate that the theory is incorrect and that an entirely new set of propositions is needed. Thus theory is tested through research. A theory cannot be proven to be entirely accurate or correct, however, because there are always new cases. It is more accurate, therefore, to say a theory has received support than to claim it is true or proven.

Within the structure of the "If A then B" proposition is the explicit expectation that A is related to B in some way. The connection between A and B may take many forms and sometimes the form is not clear or self-evident. The most obvious form is that A causes B, but causality is very difficult to establish, particularly in the social sciences, where individuals make choices about their behavior. Cause implies a direct, almost law-like relationship between variables that is rare in cases of human behavior, although it is still the goal of some theoretical perspectives. In other theories, the expected relationship may be simply temporal, that A precedes B in some logical way. Many developmental theories are grounded in this form of relationship, assuming that A must occur before B can occur and that completing A makes room for B. It may also be that A is correlated with B in the sense that the two are connected in either a positive or negative way. A positive relationship means that a change in A results in a change in B in the same direction, whereas a negative correlation indicates that changes in one direction in A result in a change in the opposite direction in B. Some theories specify a multi-directional relationship where A influences B and B also influences A. A structural relationship between A and B may occur when

they are both part of a larger system, such as a cultural system, creating a circumstance where one is related to the other.

While this “If A then B” structure underlies most theories, theories do take many other forms. One form is the taxonomy, which might be framed as “A is not B, is not C, is not D.” A taxonomy is a system of classification whereby some group of phenomena are sorted according to their types. Table 1.2 earlier presented three common crises taxonomies. The value of a taxonomy is that it specifies similarities and differences. As with definitions, taxonomies help clarify the range of concepts under investigation. A second form of theory is the model; in fact, all theories can be described as models in the sense that they are representations or abstractions of the real world. The theory “If a condition is perceived to be a crisis, then people will experience high levels of uncertainty” is a verbal model. The description is a verbal representation or model. There are also pictorial models, such as the food recall model presented in Chapter 3, mathematical models and scale models. Each seeks to represent reality and describe the relationship between elements. Models are particularly helpful in demonstrating relationships such as time, sequence or proximity. They can help clarify and visualize the relationships between elements of the theory, especially when those relationships are complex.

Another distinction sometimes made between theories is logical positivist versus social constructivist approaches. These approaches represent two philosophical orientations and tend to be associated with different methodological stances. Logical positivism is a rational approach to human behavior that follows empirical assumptions. According to this approach, the truth or accuracy of a statement lies in its ability to be empirically verified. Logical positivists believe in a material reality that can be measured and verified through empirical observation. They seek more law-like relationships in their efforts to understand behavior. In contrast, constructivists or social constructivist approaches typically favor more qualitative approaches and argue that much of meaning is socially constructed through perception, interaction, and language. For the students of theory, it is important to understand that these philosophical stances underlie various propositions and influence how the propositions are formulated. Both approaches are represented in theories of crisis communication.

Theories may also be described as specialized, narrow or grand. A specialized theory is a narrow proposition designed for a very limited application or circumstance. Most crisis theories are relatively specialized formulations developed to explain specific phenomena. A grand

theory is a formulation that seeks to describe and explain a much broader range of phenomena. These theories are appealing in that they have the potential to unify many more limited theories and create an overall picture of the phenomenon under investigation. Chaos theory, which has a very wide-ranging application, described in Chapter 5, is one such theory. While chaos theory explains a great deal, it falls short of being a grand theory in that it does not create a complete understanding of any one phenomenon. When a set of propositions becomes general and abstract, it is called a paradigm (Kuhn, 1962). "A paradigm can be viewed as a set of basic beliefs (or metaphysics) that deals with ultimates or first principles" (Guba and Lincoln, 1994, p. 107). It is a mental window or worldview that specifies elements, relationships and assumptions. According to Dills and Romiszowski (1997), a paradigm can also be described as a "coherent set of concepts, principles, assumptions, and basic axioms that have come to be accepted by a sufficiently significant number of researchers or practitioners in the field" (p. xi). Probably the most popular paradigm in communication research is systems theory, which outlines the general dynamic homeostasis that characterizes the relationship between supra-systems, systems and sub-systems (Bertalanffy, 1950). According to systems theory, various forms of feedback maintain stability by regulating the operation of systems. As a paradigm, systems theory is too general to generate specific testable hypotheses. Nonetheless it has been widely influential in the formulation of other theories.

Theories are also sometimes described as emergent when they are in the early stages of development. As propositions are offered, tested, refined and critiqued, more scholars may find that they have utility. When this happens, theories typically reach some level of development where they are no longer emergent but represent mainstream sets of ideas that have been agreed upon and accepted as useful. Grounded theory is a qualitative approach designed to lead to the emergence of new theories. Rather than following the traditional approach of beginning with a theory and testing its propositions through the collection of data or observations, this approach begins with data and allows the propositions to emerge (Glaser and Strauss, 1967). Observations are coded, concepts are developed, observations are categorized, and theoretical propositions are then generated.

Finally, theories themselves may be loosely grouped or categorized by similar characteristics in form, function or area of explanation. These families of theories, such as developmental theories, mass communication theories or theories of warning, typically focus on similar issues or

phenomena. In so doing, they comment on one another and create a richer, more complete understanding of the area being examined. Often within a family of theory there are conflicting and competing formulations, and research is required to identify which is the most useful explanation.

Critiquing Theory

As we noted earlier, theory can be understood broadly as a set of tools, but all tools are not equally effective. Some tools are better matched to some applications. It is common for theories to be applied in contexts for which they were not initially designed. In other cases, the theory is not well matched to the phenomenon it is designed to explain. Sometimes a theory fails to account for new developments, such as changes in technology or in social structures, and is no longer useful.

Some theories, for example, are complex and thus cannot be easily understood or applied. The common criticism that theory does not work in the real world is usually due to overly complex sets of propositions, perhaps characterized by jargon and too many exceptions and caveats. Simplicity is one characteristic of a good theory. Simple theories are easier to understand and apply. Related to simplicity is the idea that a theory should be parsimonious, efficient in explaining as much as possible with few propositions and with wide application. Some highly parsimonious theories, such as chaos theory (described earlier), have explanatory utility in both the physical and the social sciences. The most parsimonious of theories is the grand theory, which for most fields remains an elusive goal. Because theory is essentially a tool, it should also be useful, not only in generating and informing research, but in guiding practice. This is another reason for constructing theory that is simple and straightforward. Theories should be dynamic in a way that allows them to develop, expand and grow to accommodate new understandings and insights. In this way, a theory has much greater longevity.

Heurism is the ability of a theory to generate new ways of thinking, understanding and ultimately generating research. Sometimes theories capture the imagination of researchers and entirely new bodies of knowledge are created. They are often replaced by new frameworks that go beyond the initial formulation and are seen as having more explanatory potential. Finally, theory should be structured in such a way that it can be tested. We noted earlier that a theory can never be proven true or accurate. It is possible, however, to prove a theory false. This char-

acteristic of falsifiability is a critical component of any theory that is aimed at generating research.

Plan for This Book

The following chapters present, describe and critique a wide range of theories that have utility in explaining how communication functions before, during and after a crisis. This includes explanations of various communication channels, audience behavior and responses, agency coordination, image and reputational repair, and crisis management. This body of theory is highly diverse and interdisciplinary, taking many forms and coming from many disciplinary perspectives. Some are grounded in more general qualitative and social constructivist assumptions and some are more specific and related to logical positivist epistemologies. This effort to represent a broad sampling of theory allows for a much more comprehensive understanding of the role of communication in crisis, and also provides the researcher and the practitioner with a broader array of tools. In addition, these theories comment on one another, providing and demonstrating how theory has developed within one particular area of focus. We have grouped these theories into nine chapters. Each chapter represents a family of theory in terms of similar focus or structure.

The chapters are presented in a general developmental order. We begin with theories of communication and crisis development in Chapter 2. Failures of communication are closely associated with the onset of crisis, and specific communication processes are associated with each stage of crisis development. Chapter 3 presents theories of communication and warning as primary processes occurring when a crisis first emerges. Warnings, including evacuations, are central tools in limiting harm in the case of many types of events. Theories of communication and crisis outcomes (Chapter 4) and theories of communication and emergency response (Chapter 5) examine efforts to explain, model and respond to the post-crisis conditions. Communication is generally recognized as an essential tool for agencies and communities seeking to mount an effective response. Theories of communication and mediated crisis (Chapter 6) describe efforts to characterize and explain the role of mass communication. Chapter 7 explores theories of influence, including persuasion and rhetorical approaches to crisis communication. Theories of communication and risk management, covered in Chapter 8, draw on the very well-developed body of scholarship in risk

communication. Theories of communication and ethics (Chapter 9) reflect our belief that crisis always involves questions of good and bad, right and wrong, and desirability and undesirability. Finally, in Chapter 10 we explore the ways in which crisis communication theory can be expanded and applied.

Crisis is by definition a highly interdisciplinary field and the theories covered here come from a variety of perspectives, disciplines and traditions. They also address a wide range of communication phenomena including technologies, channels, audiences, situations, variables, processes and outcomes. It is not possible, however, to cover every theoretical framework that is relevant to crisis. The theories described and critiqued here are those that focus most directly on the communication processes and phenomena associated with crisis. Some theories are included because they have been applied to specific communication problems and others have been excluded because of their very narrow technical focus. For example, risk communication might be considered an entirely separate field, but risk is a defining feature of a crisis and thus theories of risk communication are presented in Chapter 8. In some cases, only a relatively few efforts have been made to explain some crisis-related phenomena. In those cases, fewer theories are presented. In addition, the individual chapters cover the primary theories within a specific area or addressing a specific problem. They are not, therefore, exhaustive of every theory that has addressed that issue. Theorizing and theory construction has grown quite significantly in recent decades and this has made the task of summary and synthesis much more challenging but even more important.

Conclusion

Theory and theory building are expressions of our natural inquisitiveness and creativity. Humans have an instinctive drive to explain and understand; in this sense we are all theory builders and users. People who have experienced a crisis often feel an intense need to ensure that such an event never happens again. Explanation and understanding is part of that process. Interestingly, communication of the experience or sharing the story of the crisis is often part of the process. These stories help others learn and make sense of the event. Crises, however, are anomalous events and generate high levels of uncertainty about what is happening, why it is happening and what should be done. Theory is particularly appropriate in these contexts for informing decisions and actions. Beyond this, however, theory helps build a more comprehen-

sive understanding of crises: how they develop, what role they play and how they can be managed.

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