

ORGANIZATIONAL RESPONSES TO CRISIS: THE CENTRALITY OF TRUST

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This paper examines the role of trust in organizational response to crisis. Based on prior research and interviews with 33 top managers during a period of industry crisis, trust is conceptualized in terms of four dimensions: competence, openness, concern, and reliability. Trust at the group, organizational, and interorganizational levels is hypothesized to be positively related to decentralization of decision making, undistorted communication, and collaboration within and between organizations during crisis. Trust is also hypothesized to be positively related to organizational performance.

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INTRODUCTION

Within this division, there is a real problem with the lower level people not trusting the people at the top, because the people feel that the management doesn't tell them the truth, doesn't level with them, isn't honest, has a hidden agenda, plays games. I could go on and on. I think it's worse today than I have ever seen it in my 33-year career in this company. --Automotive executive

In the latter part of the twentieth century, organizational crises have become almost routine. Indeed, crises are occurring on a scale not previously encountered, most of them human-caused, either through faulty decisions (Janis, 1989), technological complexities (Perrow, 1984) or both (Pauchant & Mitroff, 1992). The purpose of this paper is to develop a midrange theory that explains why organizations respond differently during crisis, and how organizational performance may increase rather than decrease during crisis.

Definition of Crisis

A crisis is defined to be 1) a major threat to system survival with 2) little time to respond (Hermann, 1963), 3) involving an ill-structured situation (Turner, 1976), and 4) where resources are inadequate to cope with the situation (Starbuck & Hedberg, 1977; Webb, 1994).

Although a crisis calls into question the survival of a system, it can lead to either positive or negative organizational outcomes (Marcus & Goodman, 1991; Pauchant & Mitroff, 1992). Some scholars have even argued that the trauma inherent in crisis is developmental for a system, by providing individuals within the system opportunities for learning and change (Pauchant & Mitroff, 1992: 99-100). In the framework developed in this paper I contend, however, that whether positive, negative, or developmental outcomes follow crisis depends on the nature of organizational behaviors during crisis. In particular, such outcomes depend on those behaviors that shape how resources are allocated, transformed, and acquired, and the key factor(s) that moderate those behaviors during crisis.

Prior Research on Organizational Responses to Crisis

Researchers have posited a variety of behaviors that will occur within organizations faced with crisis. The threat-rigidity effect hypothesizes that in response to crisis, communication complexity is reduced, power and influence become centralized, and concern for efficiency increases, leading to conservation of resources and greater behavioral rigidity in organizations (Staw, Sandelands, & Dutton, 1981). Pfeffer (1978: 54) has also posited that "centralization is a likely outcome of organizational threats and crises, which provides a rationale for legitimately reasserting claims to centralized control." Individuals may also underestimate the extent to which their own behavior contributes negatively to an organizational crisis, thus reducing their flexibility of response (Kiesler & Sproull, 1982).

Recent empirical research on crises and crisis-related phenomena supports these hypotheses and arguments. D'Aveni (1989) found that in comparison to surviving firms, bankrupt firms suffer from greater centralization of authority and rigid adherence to existing strategies. Moreover, when faced with an external crisis, managers of failing firms pay more attention to input resources such as creditors or suppliers and internal factors such as top managers and employees than do managers of surviving firms (D'Aveni & MacMillan, 1990). Research on organizational decline and downsizing, often involving organizations facing crisis, also provides supporting evidence. Cameron and his colleagues found several negative outcomes of firms that are declining: decreasing levels of slack resources, morale, trust, upward communication, and innovation; and increasing levels of conflict, centralization, and scapegoating (Cameron, Kim, & Whetten, 1987; Cameron, Whetten, & Kim, 1987). These same phenomena typically occur in organizations undergoing downsizing (Cameron, Freeman, & Mishra, 1991; Cameron, Freeman, & Mishra 1993).

Prior research, however, has yet to provide an integrative rationale as to why different responses to crisis take place in organizations (*e.g.*, centralization of authority), whether the conservation of resources is adaptive, or why performance suffers in some organizations during crisis but not in others. In addition, some crisis scholars have argued that prior research on crisis

response has neglected deeper organizational value systems (such as culture and the values shared by senior managers) or the role of stakeholder relations (Pearson & Mitroff, 1993). This paper argues that trust represents a key construct that has been neglected in prior research on organizational crises, one that may provide insight into how culture, values, and stakeholder relations influence crisis response, and one that constitutes a tentative step toward an integrative crisis response model.

As discussed below, trust is conceptualized as a moderator of three key organizational behaviors that may occur in response to crisis (see Figure 1). Two of these behavioral responses, decentralized decision making and undistorted communication, may be viewed as complements to those discussed in previous crisis research, centralization of authority and reduction in communication complexity (Staw et al., 1981; D'Aveni & MacMillan, 1990). The third, collaboration within and across organizations, addresses one aspect of stakeholder relations discussed by several crisis researchers (Janis, 1989; Mitroff, Mason, & Pearson, 1991; Pauchant & Mitroff, 1993). In keeping with the definition of crisis as involving inadequate resources, moreover, each of these behaviors is related to the allocation of resources.

Insert Figure 1 about here

THEORETICAL FRAMEWORK

Background

Inductive and deductive approaches were combined in developing the theoretical framework discussed below. A review of the existing literature on trust in sociology, psychology, and organizational studies served to ground the deductive approach. The inductive approach was based on analyzing qualitative data gathered from industry executives during the severe downturn in the automotive industry in the U.S. and Canada during 1991-1992 in which the survival of many firms was threatened (Business Week, 1992; Flint, 1991; Shellum, 1991; White & Stertz, 1991). As such, this crisis is also consistent with those who have incorporated

financial adversity (Starbuck & Hedberg, 1977) and significant potential for loss (Billings, Milburn, & Schaalman, 1980) in their depictions of crisis.

During the fall of 1990 and early 1991, I interviewed 33 managers from more than a dozen firms, including one of the "Big Three" (Chrysler, Ford, and GM). Each of the managers occupied top positions in their firms, as CEOs, COOs, or heads of major operating units. A semi-structured interview protocol was used in which managers were asked to identify the factors that contributed to an organization's performance and chances for survival as the industry became increasingly competitive. During these interviews, trust and distrust were discussed by a number of managers as critical factors affecting their organization's functioning and performance, especially as the industry downturn worsened. In order to use these discussions systematically in developing a theoretical framework, I searched for all references to trust in the transcripts using computer software (Microlytics, 1989). Findings from these interviews will be used below in illustrating the nature of trust and its relationship to several key behaviors during crisis.¹

The Multidimensional Nature of Trust

Previous research on trust has often been definitionally and conceptually vague (Barber, 1983). Most extant research on trust at the individual, group, and organizational levels of analysis typically suffers from unidimensional conceptualizations and operationalizations, and fails to discriminate it from related constructs such as cooperation or familiarity (Barber, 1983; Luhmann, 1988). Indeed, both the research literature and the managers I interviewed typically referred to several different dimensions of trust in their discussions of the concept, often within a short passage, without explicitly stating that they exist together. However, some recent empirical research has begun to treat trust explicitly as a multidimensional construct (Swan, Trawick, Rink, & Roberts, 1988; Butler, 1991).

¹ A detailed description of the interview methodology and results are reported in Mishra (1992).

The review of the trust literature identified four distinct dimensions or components of trust which are discussed below. These four dimensions capture the content domain of the trust literature. Analysis of the 33 manager interview transcripts also yielded these same four dimensions, and representative examples of each trust dimension are provided from the transcripts in discussing each dimension. These four dimensions have been incorporated in the following definition of trust, which is founded on the notions of vulnerability (Deutsch, 1973; Luhmann, 1979; Barber, 1983; Moorman, Zaltman, & Deshpande, 1992) and expectations or beliefs (Luhmann, 1979; Barber, 1983; Moorman et al., 1992):

Trust is one party's willingness to be vulnerable to another party based on the belief that the latter party is 1) competent, 2) open, 3) concerned, and 4) reliable.

Scholars focusing on the concept of trust have defined being vulnerable as taking action where the potential for loss exceeds the potential for gain (Deutsch, 1962; 1973; Zand, 1972, Luhmann, 1979). More recent conceptualizations of trust have also continued to incorporate the notion of vulnerability. Trust by its very nature provides the opportunity for malfeasance on the part of those being trusted (Granovetter, 1985: 491; Lewis and Weigert, 1985a: 968). Without a situation in which the possible damage may be greater than the advantage one seeks, it would simply be a matter of rational calculation that leads to choosing the course of action because the risks remain within acceptable limits (Luhmann, 1988: 98). "Without vulnerability, trust is unnecessary because outcomes are inconsequential for the trustor" (Moorman, Deshpande, & Zaltman, 1993: 82).

This definition of trust as a willingness and a belief subsumes the cognitive, emotional, and behavioral components of trust posited by several scholars (Luhmann, 1979; Barber, 1983; Lewis & Weigert, 1985a), and is consistent with the conceptualization of beliefs as having cognitive, emotional, and behavioral dimensions (Bem, 1970). *Trust* is distinguished from related behaviors such as cooperation (Deutsch, 1973) or delegation (McGregor, 1967) that follow from one's trust in another (Lewis & Weigert, 1985b: 464).

The Competence Dimension of Trust

Within organizations, managers develop relationships with their subordinates and with other managers largely on the basis of trust, where trust is defined in part in terms of competence (Gabarro, 1987, pp. 106-108). Leaders are also characterized by how much their followers trust them to make competent decisions (Kirkpatrick & Locke, 1991). At the organizational and interorganizational levels, the competence dimension of trust is also discussed, especially in the context of exchange relations (Barber, 1983: 129; Sako, 1992). As one example, to the extent that a supplier organization's products meets a buying organization's quality standards, the buying organization will no longer inspect those products before accepting delivery, evidencing its greater trust in the supplier organization's competence (Sako, 1992: 38).

Competence is one dimension of trust that exists between individuals and organizations according to the managers I interviewed. When one manager was asked how trust was maintained and developed in his organization, he stated:

They've got to have some feeling that you're competent to lead them out of this mess. Because, they may like you a lot but if they feel you're a bumbling idiot they say, "%\$*&! We can't trust what this guy tells us. He's gonna take us off the end of the cliff." I mean they have to be confident that you're competent. They've got to have some feeling that you know what the hell you're talking about. When you go out there to tell them to do something they've got to have some feeling that it will make a difference.

The Openness Dimension of Trust

Ouchi (1981) discussed trust extensively in describing the nature of the Theory Z organization, often in terms of openness. One key aspect of working relationships between managers and their subordinates is that of trust, where trust is defined in terms of perceptions of openness and honesty, among other dimensions (Gabarro, 1987, pp. 104-108). Openness and honesty is also a dimension of followers' trust in leaders (Nanus, 1989; Kirkpatrick & Locke, 1991). Leaders who are trusted are more effective in acquiring skills, retaining and attracting

followers, and promoting change and innovation (Kirkpatrick & Locke, 1991, p. 58). Davis & Lawrence (1977) also conceptualized trust in terms of openness in relating trust to coordination among matrixed departments. In construct validation research, Butler (1991) has found some empirical support for openness as one of several separate conditions of trust.

Managers that I interviewed also discussed trust extensively in terms of openness or honesty. When asked to describe trust between himself and his employees, one manager responded:

If they don't believe what I'm telling them, if they think it's all a bunch of bull----, don't expect them to go out there and work a little harder or work a little different. They're not going to be as receptive to change unless they understand and trust that the things that we're talking about are in fact true.

Openness beyond a certain level may, however, serve to impair rather than enhance trust. For example, telling someone the complete truth, with elaborate detail, about his or her character flaws may decrease trust between two parties.² Nevertheless, such extreme honesty impairs the overall trust level by lowering trust in terms of the concern or competence dimensions, rather than the openness dimension *per se*.

The Concern Dimension of Trust

At a minimum, this dimension of trust means that one party believes that it will not be taken unfair advantage of by another (McGregor, 1967: 163; Bromiley & Cummings, 1993). However, greater trust in another party in terms of concern goes beyond believing that the party will not be opportunistic. For example, I can believe that another party will not only refrain from taking unfair advantage of me, but that this party also will be concerned about my interests or the interests of the whole (Ouchi, 1981: 79; Barber, 1983: 127-130). This does not mean that the other party lacks any self-interest. Rather, trust in terms of concern means that such self-interest is balanced by interest in the welfare of others.

² I am indebted to Gene Webb for pointing this out.

Several examples of this dimension exist in the research literature. Middle managers show that they can be trusted by "caring about the company more than anything else" (Kanter, 1977: 65). Employees trust top managers in part because they believe that these managers will care about employees' job security (Kanter, 1983: 85-86; Kanter, 1989: 333-337). When management undertakes any organizational change effort, employees evaluate management in terms of whether it can be trusted to be concerned with the employees' own welfare and interests (Kotter & Schlesinger, 1979). Followers' expectations about a leader's degree of concern about the needs of others largely define how much they trust the leader (Nanus, 1989). Moreover, "all leaders require trust as a basis for their legitimacy and as the mortar that binds leader to follower" (Nanus, 1989: 101). Trust in terms of concern not only exists in hierarchical relations, but also among individuals within the same level in the hierarchy. Pascale (1990: 249-151) has described Honda's culture in terms of employees trusting one another to be concerned with the welfare of the entire organization. This dimension of trust also operates at an institutional level. The assessment of political institutions, which depend on the trust of the electorate, is in part based on their degree of concern for the interests of the whole (March & Olsen, 1989, p. 128).

Managers who were interviewed also referred to trust in terms of concern for another party's welfare or interests.

I think the trust factor is that you have the best interest of the people at heart, and that they believe in what you're trying to do....If they feel that you really care. I have a responsibility for 3,000-plus people and their families. That's an awesome responsibility. My single objective is to make sure that those people have a livelihood, a future, so that they can take care of those families. That's all part of this trust issue.

The Reliability Dimension of Trust

"Inconsistencies between words and action decrease trust" (McGregor, 1967: 164). Ouchi (1981: 101) has referred to trust in terms of expectations about consistent or reliable behavior. Trust between managers and subordinates is also defined by Gabarro (1987: 105) in terms of consistency of behavior, and that "judgments about trust in working relationships become specific based on accumulation of interactions, specific incidents, problems, and events"

(Gabarro, 1987: 104). The trustworthiness of leaders has also been explicitly defined in terms of their reliability. "Nothing is noticed more quickly -- and considered more significant -- than a discrepancy between what executives preach and what they expect their associates to practice" (Nanus, 1989: 102). Kirkpatrick & Locke (1991) also define the trustworthiness of leaders in terms of reliability ("consistency or credibility"), and note that during crisis, their reliability is particularly salient for assessments of their trustworthiness. In the marketing literature, Swan et al. (1988) investigated trust that purchasers held in salespeople, and validated four distinct dimensions of trust, including reliability, which they labeled dependability.

Reliability, dependability, or consistency between words and action, was another theme in managers' comments when asked what they thought builds trust. When asked to assess the level of trust held in him by his customers, one manager stated:

I'd say for the most part, our level of trust with our customers is pretty good. Because we, No. 1, do what we say. If we say we're going to have it on the 17th, we have it on the 17th. If something would prevent that from happening we warn them up-front. We work with them on an early warning system I hope. There again, customers only trust you because you have a history of delivering what you say.

Another manager from a supplier firm explicitly compared customer firms in terms of their reliability:

In most cases, we've certainly developed more of a trusting relationship with certain companies than we've been able to with this other company. I believe it's because their middle managers are getting consistent messages from the top. These companies are less likely to pull the rug out from under the people we deal with directly. Whereas, this other company's (top managers) will change their minds overnight, and all the things that are put forth by the people that I deal with on a one-on-one basis suddenly aren't valid anymore.

Trust is a Combination of the Four Dimensions

Several scholars have posited that trust is a set of distinct beliefs or expectations which nevertheless combine in some fashion to represent overall trust. Luhmann (1979: 91-92) articulates how the presence or absence of different expectations mark thresholds between distrust, indifference, and trust. For example, one can be trusted in terms of his or her moral

intention but not in terms of his or her ability to report objectively, and therefore the person is not completely trusted (Luhmann, 1979: 92). Barber (1983) has explicitly argued that trust is a multidimensional construct, incorporating expectations of both competence and fiduciary responsibility (*i.e.*, concern). These two dimensions of trust operate with respect to many different referents and levels of analysis, including within family groups, between business organizations, and the public's trust in the professions, political leaders, and charitable foundations. Greater trust exists in a particular referent when trust along both dimensions is present, as when a surgeon can be trusted to be both technically competent and concerned for the welfare of the patient (Barber, 1983:). Construct validation efforts in both marketing (Swan et al., 1988) and organizational studies (Bromiley and Cummings, 1993), have also provided empirical support for the concept of an overall trust construct composed of multiple dimensions. Moreover, Swan et al. (1988) showed that their separate dimensions of trust explained a sizable fraction of the variance in general trust constructs developed by other researchers.

In this paper, the separate dimensions of trust are assumed to represent components of an overall trust construct.³ These dimensions combine multiplicatively in determining the overall degree of trust that one party has with respect to a given referent. That is, a low level of trust in terms of any of the dimensions offsets high levels of trust in terms of the other dimensions. As one example, a manufacturer could trust one of its suppliers to be competent in producing particular engine components and to be reliable in meeting its delivery schedules. But the manufacturer might still suspect that the supplier is not reporting its true cost estimates in order to price-gouge when selling those components to the manufacturer. In other words, the manufacturer may not trust the supplier in terms of openness or concern. The manufacturer in this instance would then be expected to have a low level trust in that supplier.

Trust is assumed to exist at multiple levels of analysis. It exists within an individual, as in a subordinate's trust for his or her manager (Gabarro, 1987). It also exists within groups or

³ For an empirical test of the multidimensionality of trust and empirical support for trust comprising the four dimensions in this paper, see Mishra (1993).

organizations (Ouchi, 1981) and between organizations (Barber, 1983; Sako, 1992).⁴ Even at the institutional level trust exists, for example, the public's trust in the political system (Barber, 1983; March & Olsen, 1989) or the professions (Barber, 1983; Zucker, 1986). For a collective of individuals (*e.g.*, a group or an entire organization), trust is operationally defined in terms of the average level of trust among the members of the collective.

Interorganizational Trust as a Multi-Constituency Construct

Trust at the interorganizational level may be important with respect to several different types of organizations. A variety of external stakeholders may affect crisis response in a given organization through their demands for rationality and legitimacy (Dutton, 1986; D'Aveni & MacMillan, 1990; Pauchant & Mitroff, 1992).

In developing the theoretical framework, this paper will limit its discussion of external stakeholders to customer and supplier organizations. These organizations in particular are critical resources for the focal organization in terms of inputs and as markets for outputs (Pfeffer & Salancik, 1978), and are crucial contingencies for the focal organization (Thompson, 1967; Lawrence & Lorsch, 1967). Moreover, effective relationships between customer and supplier firms often depend on trust, even when formal contracts are used extensively (Barber, 1983; Sako, 1992). In evaluating the 1991-1992 automotive industry crisis in the U.S. and Canada, the business press argued that improving customer-supplier relationships is critical if firms in this industry are to survive (Kirkland, 1991; Shellum, 1991; White, 1991). Not surprisingly, the importance of trust between customer and supplier organizations was often discussed by the interviewed managers.

We have a relationship with one customer very much like the Japanese do. For a given service, we have a rate that we have agreed on, a target rate, that we charge. They can almost do our quoting for us. The only thing that is really up for discussion is how fast we can do it, not how much we're going to charge for that given rate, but how many parts we'll give per hour. In return they don't send the work that has been designated as our territory out for 1,000 quotes every time it becomes available. We have a very close and trusting relationship with that one

⁴ Organizations *per se* do not trust one another, individuals do. However, for the sake of brevity, the term "organization" will be used to refer to the collective of individuals within an organization.

customer. They're years ahead of anybody else. I think it's certainly possible to do that; if everybody operated like these guys it would be terrific.

Trust and Organizational Crisis Response

Trust has been discussed as a salient leadership characteristic during crisis (Webber, 1987; Kirkpatrick & Locke, 1991). Theoretical and empirical research, however, has yet to articulate and confirm the processes by which trust affects crisis response in organizations. In this paper, trust 1) within an organization's top management group (TMG) (Hambrick, 1994), 2) between TMG members and lower echelon members of a given organization, and 3) between members of that organization and its customers and suppliers are hypothesized to have a positive influence on three key aspects of organizational behavior. Specifically, these behaviors are decentralized decision making (Bowditch & Buono, 1994: 297), undistorted communication (Roberts & O'Reilly, 1974;), and collaboration (Thomas, 1979) among functional areas or departments within an organization and between organizations (see Figure 1).

Decentralized Decision Making

Decentralization is the extent to which decision making is dispersed to individuals at lower levels of an organization's hierarchy (Bowditch & Buono, 1994:297). The extent to which decision making is decentralized is a salient topic in my interviews with the automotive industry managers. The managers I interviewed who headed operating units frequently complained about important decisions being restricted to executives of their corporate parents. Many of the managers also discussed impediments to and the necessity of decentralizing decision making within their own organizations.

Several scholars have conducted research on decision making and crisis, and have found support for the proposition that decision making becomes more centralized in organizations in response to crisis (Hermann, 1963; Dutton, 1986; D'Aveni, 1989). Top managers may wish to centralize decision making as a symbolic approach to preserving legitimacy among key internal

and external stakeholders (Dutton, 1986). Decision making may also become centralized because lower echelon members wish to disengage themselves in order to avoid making mistakes that could be punished.

On the one hand, decision-makers want to enhance their ability to act quickly and decisively in the wake of crisis. On the other hand, lower level members want to disassociate themselves with any responsibility or blame in case resolution attempts fail.

[Dutton, 1986, 508.]

Trust may be a critical factor enhancing decentralized decision making for several reasons. Delegating decision making to others involves both increasing dependence on those others and entailing greater risks. Dependence takes the form of ceding one's authority to another who previously did not possess such authority. Action that previously was restricted to the person delegating authority has now been sanctioned to another person or persons. Risk takes the form of ceding authority because these others may behave opportunistically, as agency theorists argue (Arrow, 1985). Even if the assumption of opportunism is removed, risk still remains due to possible incompetence or ignorance on the part of those receiving authority, as critics of agency theory have noted (Donaldson, 1990). As noted above, accepting greater dependence or risk is at the core of trusting behavior (Deutsch, 1973; Lewis & Weigert, 1985a), and trust as a belief facilitates trusting behavior. Trust then may be even more important to decentralizing decision making during crisis than in "normal" situations because risk is greater. Risk is greater in a crisis by definition, for the stakes are greater, organizational survival rather than merely growth or prosperity, and the time constraints are sharper.

In the management literature, researchers have provided initial evidence for the linkage between decentralization of decision making and trust, particularly trust between managers and employees at lower levels of the organizational hierarchy. McGregor (1967: 173) argues that managers must be able to trust that their employees are concerned with the organization's interests if they are to delegate decision making authority to them. Moreover, during crisis, the transformation of an organization based on a mechanistic control system to an organic one

depends on the development of trust between the organization's managers and employees (McGregor, 1967: 132-133). Citing case studies of both Japanese and U.S. firms, others more generally state that non-managerial personnel will be allowed to make decisions only if they are trusted by those above them in the hierarchy (Ouchi, 1981: 81; Davidow & Malone 1992: 176).

The dynamic between decentralization and trust is bottom-up as well as top-down. The effort to move from an autocratic to a democratic style of management depends not only on the how much management trusts employees, but also on the degree to which employees trust management (Ouchi, 1981: 115). More recently, Kirkpatrick & Locke (1991) have found that trustworthy leaders are more likely to develop participation in and commitment to the decision making process. The managers interviewed also stated that trust facilitated more decentralized decision making. As one manager put it:

I think to get continuous improvement you have to have the trust and empowerment. I think you have to start trying to get those decision levels down to its lowest possible common denominator -- otherwise you get this attitude, "it isn't my job".

Trust among top managers may also be necessary for delegation of decision making to take place (Ancona & Nadler, 1989; Katzenbach & Smith, 1993). Ouchi (1981) notes that an organization's top manager must be able to trust his or her subordinates to be concerned with the best interests of all before decentralizing decision making authority to them (Ouchi, 1981: 105). Members of a TMG must also trust an organization's top manager and one another to not be engaged in self-serving behavior for them to accept decision making responsibility (Ouchi, 1981: 79). Therefore, the following hypotheses relating trust to decentralized decision making in organizations are:

Hypothesis 1a: During crisis, the level of trust among TMG members will increase the degree to which decision making is decentralized in an organization.

Hypothesis 1b: During crisis, the level of trust between TMG members and lower echelon members will increase the degree to which decision making is decentralized in an organization.

Undistorted Communication

Trust is also expected to increase the communication of undistorted, truthful, or candid information. Although the openness dimension of trust, as part of overall trust, is related to undistorted communication, it is conceptually distinct from it. Trust as defined in this paper includes *beliefs* regarding the openness of another's communication. The extent to which the trusted person engages in undistorted communication then reinforces the trust (in terms of openness) placed in him or her. In contrast, trust in another is reduced when that other engages in outright lying or distortions of the truth.

Undistorted communication, like decentralization, is expected to suffer during crisis unless enhanced by trust. Even though demands for information may increase during crisis (Kiesler & Sproull, 1982), upward communication often suffers (Hermann, 1963). Information may be withheld or distorted due to fear of reprisal among lower echelon members (Pauchant & Mitroff, 1992: 17). To the extent that lying is positively associated with performance pressures stemming from inadequate time or resources (Grover, 1993), it can be expected that the communication of undistorted information will suffer during crisis.

Several scholars have posited that trust facilitates greater use of undistorted communication. At the individual level, Rogers (1961: 50-51) expressly linked trustworthiness and candor of communication. Experiments in group settings have shown that communication is more likely to be distorted, misleading or deceptive when suspicion rather than trust exists (Zand, 1972; Deutsch, 1973: 165; see also the review by Golembiewski & McConkie, 1975). Within organizations, scholars have argued that a sufficient level of trust must be present so that individuals will speak candidly and honestly to peers, subordinates, and superiors (Ouchi, 1981: 98; Zand, 1981; Beer, 1987). Roberts & O'Reilly (1974) found that subordinates who had lower levels of trust in their superiors had a greater propensity to withhold information from them, and reported a higher degree of distorted upward communication. Thus, trust in TMG members by lower echelon employees may be important in encouraging them to communicate upward to them, especially in the case of information that is perceived as damaging to TMG members. At the organizational and interorganizational levels, McGregor (1967: 163) has argued that "unless

mutual trust is a characteristic of the system, the openness of communications will be severely limited." More specifically, trust between customer and supplier organizations is critical to the exchange of open and truthful information, especially proprietary information such as sales, orders, and inventories (Davidow & Malone, 1992: 58) or information on future business plans (Sako, 1992: 48).

This research is supported by my interviews with managers, in which almost all of them stated the importance of trust as a prerequisite to undistorted communication. The ways in which trust facilitated undistorted communication are illustrated by these managers' comments:

As far as my boss is concerned, I trust him like I trust a brother. I tell him anything I want. He'll use discretion in how he uses it.

The way we find (important information) out is, I think, this mutual trust or partnership kind of relationship. One of our people is friends enough with somebody in one of our customer firms that knows that information, who is willing to share it knowing that it is not going to be used in the wrong way, and shares it.

The hypotheses articulated below relate trust to undistorted communication about specific information that is especially relevant during crisis. Because a crisis involves scarce resources, information about how resources are currently allocated is critical to individuals' ability to redirect resources to where they are most needed to deal with the crisis. However, sharing such information in a completely honest manner entails risks, as costs, inefficiencies, and redundancies may be revealed. Within an organization, for managers and employees to be honest in communicating such information, they must believe that they will not be adversely harmed (*e.g.*, in the form of reprimands or disciplinary action for not being forthcoming earlier). Moreover, to the extent that norms of reciprocity and equity are operating, individuals will be loathe to disclose potential excess resources unless others are willing to do the same. Between customer and supplier firms, sharing information about resource allocation runs the risk that such information will be shared with competitors or will be used by customers to demand price reductions from their suppliers (Womack, Jones, & Roos, 1990; Sako, 1992).

Operating budgets in particular provide decision makers with a key source of information about organizational resource allocation and a key form of managerial control (Cyert & March, 1963; Bourgeois, 1981). Not surprisingly, some scholars of trust have posited that undistorted communication of budgetary information depends critically upon trust. For example, Bromiley and Cummings (1993) have argued that a lack of trust between managers causes them to bias their budgetary requests because the budgets are expected to be dishonest in the first place and they are rewarded for performance to budget. Therefore, the hypotheses relating trust to undistorted communication:

Hypothesis 2a: During crisis, the level of trust among TMG members will increase the degree to which they provide to one another honest, undistorted information about operating budgets.

Hypothesis 2b: During crisis, the level of trust between TMG members and lower echelon members will increase the degree to which lower echelon members provide to the TMG honest, undistorted information about operating budgets.

Hypothesis 2c: During crisis, the level of trust between members of an organization and its key suppliers will increase the degree to which these parties provide honest, undistorted information to the each other about their operating budgets.

Hypothesis 2d: During crisis, the level of trust between members of an organization and its key customers will increase the degree to which these parties provide to each other honest, undistorted information about their operating budgets.

Collaboration

Collaboration is behavior which attempts to satisfy completely the needs of parties which are in conflict with one another (Thomas, 1979, Follett, 1941: 35). It is characterized as being highly *cooperative* (attempting to satisfy another party's needs) and highly *assertive* (attempting to satisfy one's own needs) (Thomas, 1979). In particular, collaboration involves the use of problem solving to find alternatives which would satisfy both parties and selecting the most jointly satisfactory alternative (Thomas, 1979).

Collaboration over the allocation of resources is expected to suffer, however, during crisis. Managers responding to crisis often attempt to minimize or ignore the competing

resource claims of affected employees, customers, or other stakeholders. If a lack of collaboration results in stakeholders resorting to legal action, even greater claims on the resources may result, as evidenced in Exxon Valdez, Union Carbide/Bhopal, Johns Manville asbestos and Ford Pinto crises (Pauchant & Mitroff, 1992: 62-63). As the automotive industry downturn deepened in 1990 and 1991, and financial losses grew to record amounts for the Big Three, Ford and GM began demanding unilateral price cuts from their suppliers and Chrysler sharply reduced its collaborative efforts to reduce costs (Fleming, 1991; King, 1991; Shellum, 1991). Not surprisingly, many managers I interviewed during that time period also noted how collaborative approaches suffered:

I'll tell you what bothers me. They (corporate management) put a big scare tactic out there. Right now there are four plants in this company building this car model. Two other plants and my two plants. We look at the forecasted volume in '93 and we only need three. "One of you is going to bite the dust." It's tough to build trust in the three plant managers of those four plants when one of them is fighting for survival -- all of us, quite frankly. Do we really share all of our strategies, and all the things we need to know that could help each other in that kind of an environment? That's tough. I sat beside the other two plant managers, Tom and Bud, for three days in New York this week. Fine, fine guys. You know if the three of us ever put our heads together and shared all the success stories each one of us have in our facilities, we could be much better than we are today. But do you do that at the risk of shutting yourself down? That's what is wrong.

Trust, however, has been found to be a critical factor facilitating collaboration. Thomas (1979: 217) has argued that "collaboration requires trust in the other party -- trust in the other's information and trust that the other will not exploit oneself." Empirical research supports and extends this argument. Trust encourages interdependent individuals and groups to eliminate their fear of exploitation and recognize their existing conflicts (Walton & McKersie, 1965; Gibb & Gibb, 1969), to be more cooperative in their behavior (Deutsch, 1962; Ouchi, 1981); and to generate suggestions for change focused on the problem itself (Hackman & Oldham, 1980: 234-235). Trust also enhances cross-functional collaboration "by encouraging individuals and groups to rely on one another and to accept each other's judgments when these are based on unique competence and knowledge" (Davis & Lawrence, 1977: 107).

Trust is expected to be especially important in the context of crisis and the concomitant scarcity of resources, as trust has also been found to foster collaboration over the allocation of resources within and between firms. Cross-functional collaboration over financial and human resource allocation is often based on trust (Davis & Lawrence, 1977; Thomas, 1979; Lorenz, 1992). Collaboration between firms in the allocation of financial and technical resources also depends critically on trust, whether it is a manufacturer and its suppliers (Davidow & Malone, 1992: 143-145) or even between suppliers selling to the same manufacturer (Sako, 1992: 237-238). Several managers I interviewed also pointed out the benefits of collaboration in the allocation of resources based on trust. As two of them stated:

I trust those people (a division of a major company). Last year we had significant productivity increases on some of their parts. But we also had some cost increases on some other parts that were out of our control; paint increases, certain types of material increases, some handling issues that came up to prevent damage to parts from going into the plant. We were able to give them cost reductions where improvements are. They in turn gave us our legitimate price increases without any argument. It did come up with a net savings of about \$20,000 a year to them. Now \$20,000 as we all agree is peanuts. But, it's better than having your costs go up. And, we had an open relationship. It was a give and take relationship. They ended up with a net reduction in prices. Now, with anybody else, we're not as likely to give them price reductions, and they're not going to be as likely to give us our legitimate price increases. So, it's an adversarial relationship, an animosity on both sides, and these issues never get resolved. It's an absolute 180 degrees the way that company is doing things from one division to another.

One of our fellow plants is our major supplier of metal - our only supplier of metal, basically. They're helping train our guys in synchronous manufacturing, and we're helping train theirs. We're sending out people to each other's plants. I've got a great commitment from this organization. We're talking about saving money. We're looking at tooling fixtures. Why do we have to have duplicate fixtures? I mean it's phenomenal how much redundancy we have in our systems because we don't trust one another. Because we don't have a relationship.

In sum, collaboration over the allocation of resources within organizations and between organizations is expected to be difficult to sustain during crisis in the absence of trust. This is not to say that some forms of competition over resource allocation, even among the plant managers quoted above, may also be beneficial during crisis.⁵ Indeed, competition that

⁵ Thanks to Gene Webb for reminding me of this.

eliminates wasteful practices and results in higher efficiency among all of the competing parties would obviously be useful during a crisis. Indeed, collaboration as defined by Thomas (1979) and as used in this paper incorporates the dimension of competing for one's own interests, which in a crisis means one's survival. It also, however, involves taking into the account the joint interests of both parties, and strives to find mutually agreeable outcomes. Thus, the hypotheses regarding trust and collaboration are:

Hypothesis 3a: During crisis, the level of trust among TMG members will increase the degree to which a collaborative approach is used to allocate resources within an organization.

Hypothesis 3b: During crisis, the level of trust between TMG members and lower echelon members will increase the degree to which a collaborative approach is used to allocate resources within an organization.

Hypothesis 3c: During crisis, the level of trust between members of an organization and its key suppliers will increase the degree to which a collaborative approach is used between the organization and these suppliers to reduce costs.

Hypothesis 3d: During crisis, the level of trust between members of an organization and its key customers will increase the degree to which a collaborative approach is used between the organization and these customers to reduce costs.

Trust and Crisis Resolution

Trust is expected to have a positive effect on the degree to which sufficient resources are developed to deal with the crisis in a timely fashion by enhancing decentralization, undistorted communication, and collaboration. Decentralization of decision making authority increases the flexibility and speed with which resources can be identified and reallocated to where they are most critical to the organization's survival. If, for example, during a crisis, employees are allowed to decide which areas or activities should have resources reduced or eliminated, and which areas should receive additional resources, then time that would otherwise be spent seeking management approvals can be devoted to implementing the resource reallocations. This assumes, of course, that the knowledge requisite for making correct decision resides among these employees (cf. Vroom & Yetton, 1973). Decentralization also frees up resources that would

otherwise be devoted to monitoring and control systems, thus enhancing organizational efficiency, because individuals are assumed to not be taking advantage of the system (Bromiley and Cummings (1993). Thus,

Hypothesis 4: During crisis, decentralized decision making will increase the speed and degree to which adequate resources are developed to resolve the crisis.

Higher quality communication is also expected to have a positive effect on the degree to which sufficient resources are developed to deal with the crisis in a timely fashion . Effective crisis management depends on open communication channels among hierarchical levels and across divisional units (Pearson & Mitroff, 1993). More specifically, members of an organization will be able to allocate scarce resources more efficiently because they will be able to utilize honest and complete information about where those resources exist and how they can be employed for the optimal benefit of the entire organization. This same logic applies to allocation of resources between an organization and its suppliers. "Because trust encourages the disclosure of truthful information which might otherwise be withheld or distorted for self-advantage seeking, it may improve allocative efficiency" between an organization and its suppliers (Sako, 1992: 47). Moreover, resources can also be allocated more quickly between an organization and its suppliers, as undistorted communication minimizes the time and effort needed for negotiations about resource allocations (Sako, 1992: 48).

Hypothesis 5a: During a crisis, undistorted communication within an organization will increase the speed and degree to which adequate resources are developed to resolve the crisis.

Hypothesis 5b: During a crisis, undistorted communication between members of an organization and its key suppliers will increase the speed and degree to which adequate resources are developed to resolve the crisis.

Hypothesis 5c: During a crisis, undistorted communication between members of an organization and its key customers will increase the speed and degree to which adequate resources are developed to resolve the crisis.

Both cross-functional and interorganizational collaboration in the allocation of resources is expected to enhance the speed and degree to which adequate resources are developed during a crisis. Even though collaboration takes longer initially than competitive or unilateral approaches to resolving conflict over resource allocation, commitment to the allocation decisions is greatest using a collaborative approach, and thus implementation time is reduced (Walton & McKersie, 1965; Thomas, 1979). Evidence for the speed and efficiency of resource allocation based on cross-functional collaboration has been reported by several researchers (Kanter, 1989; Clark & Fujimoto, 1990; Womack et al., 1990). Sako (1992) also found evidence for the efficacy of a collaborative approach to resource allocation between organizations and their suppliers.

Consider also the views of one the managers interviewed:

In this organization, we have been able to put together a cross-functional team of about 40 people to improve quality and costs. You know, engineering, quality control, finance, materials management people. It's a very good process. We've shown about a 37% improvement in the last year in this organization in reduction of warranty expenses.

One of the problems that I've had with a major customers is the following. I ask them that since they're going to put us close to the edge, by giving them 3% up front (in price cuts), can I expect them to be more cooperative by processing legitimate price increases in a prompt manner? They said, "no we can't guarantee that." One of the major problems that I have right now, is that we'll be donating a lot of money up front (in price cuts), and in the last three, four, or five years, we have been totally stonewalled on any price increase whatsoever. Very few (price increase requests), even for legitimate costs, have gone through. Right now I have a price increase that is totally legitimate. I requested it over a year ago. I requested it again last April, and they sent a team out to study it. They shunted it from here to there to some committee somewhere, and I have not heard yet (the outcome). Now, if I have a cost savings then I'd better hoard it. Because if I give it to them, then they won't reciprocate in good faith in an area where I have a legitimate cost increase. So that's what we have to do.

Thus,

Hypothesis 6a: The degree to which a collaborative approach is used to allocate resources within an organization will increase the speed and degree to which adequate resources are developed to resolve the crisis.

Hypothesis 6b: The degree to which a collaborative approach is used between an organization and its key suppliers to reduce its product costs will increase the speed and degree to which adequate resources are developed to resolve the crisis.

Hypothesis 6c: The degree to which a collaborative approach is used between an organization and its key customers to reduce its product costs will increase the speed and degree to which adequate resources are developed to resolve the crisis.

EXTENDING THE THEORETICAL FRAMEWORK

The Dynamics of Trust During Crisis

In addition to influencing several behaviors and the efficacy of resource allocation during crisis, trust itself is also expected to be influenced during a crisis as well. The three behaviors posited to be influenced by trust (decentralized decision making, undistorted communication, and collaboration) are expected to have subsequent influence on trust depending on the nature of organizational outcomes. As an example, if decision making has been decentralized to lower echelon employees during a crisis, and these individuals make good decisions (*e.g.*, the organization develops adequate resources), then they will be trusted by top management to a greater degree in the future. As another example, if an organization collaborates with a key supplier to reduce resource requirements by reducing costs, then the degree of trust between the organization and its supplier will remain the same or even increase. If, however, such collaboration fails to reduce costs, then trust may decline between the two organizations. Trust in the TMG by an organization's employees or other stakeholders may also be influenced as a result of such outcomes. Crises are occasions for managers to demonstrate competence (March, 1981; Kiesler & Sproull, 1982). Accordingly, the TMG that decentralized decision making to lower echelon employees or championed collaborative efforts with a key supplier, if these actions resulted in positive organizational outcomes, may be perceived as exercising good judgment, and therefore trusted to a greater degree in terms of its competence.

Whether trust actually declines when organizational outcomes suffer depends on what attributions are made about them. To extend the example of collaboration between an organization and a key supplier, if participants attribute factors external to the two organizations as influencing these outcomes, then perhaps trust may not suffer. If, instead, participants attribute the failures to internal reasons (*e.g.*, a lack of competence or mutual concern), then trust

would be expected to suffer. Indeed, if these internal attributions are strongly negative (*e.g.*, gross negligence on the part of either organization, or the selling of confidential cost data or proprietary designs to competitors), then trust may suffer enough to lead to actual distrust between the two organizations.

Negative Consequences of Trust

Trust has been discussed in pathologic terms if it is inflexible in the face of changing circumstances (Deutsch, 1973: 170-171; Golembiewski & McConkie, 1975: 138). However, it is likely that if trust is violated, then distrust between the parties ensues rather than a continued state of trust, especially if such violations are viewed as deliberate rather than due to circumstances beyond the control of violating party (Luhmann, 1979). However, in a crisis situation, short-term misallocations of resources based on trust violations could be fatal for an organization. In other words, the vulnerability aspect of trust is even greater in crisis situations than in non-crisis situations. As such, it is likely that reactions to violations of trust are swifter and more pronounced because the stakes are greater. Indeed, Webb (1994) has posited that a sense of betrayal rather than disappointment ensues upon trust violations during crisis.

Trust may also have a negative relationship with the efficacy of resource allocation and organizational survival if it leads to feelings of security among organizational members such that they are less motivated to deal with a crisis. Such feelings may be akin to those of invulnerability discussed by Janis (1972). None of the managers interviewed discussed trust as having such negative consequences (or for that matter any negative consequences). Perhaps it is because at least within a U.S. context, trust within and between organizations has typically been quite low (Aktouf, 1992; Davidow & Malone, 1992).

Trust and Distrust: Opposites or Complements?

To conclude the discussion of extending the theoretical framework, one last issue will be considered, namely, do trust and distrust lie on a continuum, as is implied by a number of discussions of trust, or are they functional equivalents for one another? Luhmann (1979) provides arguments for both perspectives. Trust leads to distrust if violations become viewed as

generalizable because they occur repeatedly and/or without external attribution (Luhmann, 1979: 73-74). In the context of crisis, repeated or unjustified violations of collaborative agreements to reduce costs between an organization and a key supplier would turn any existing trust between the two organizations into distrust. In this sense, trust and distrust are opposites ends of a continuum.

Trust and distrust are also complements for one another, as both function to reduce social complexity (Luhmann, 1979: 71). In the present context, both trust and distrust help TMG members determine whether employees can be delegated decision making authority, fellow TMG members can be given confidential budget information, or key suppliers can be offered collaborative agreements. Indeed, greater trust in one particular set of employees, TMG members, or suppliers makes it possible to distrust other employees, etc. as it becomes easier to make fine-grained distinctions among various individuals, groups, or organizations in terms of the four dimensions. In the interviews with managers, one sales vice president made direct comparisons among various divisions of one customer organization in terms of how much each division was trusted by his firm, and stated that his firm was willing to reduce prices for one particularly trusted division but not for the less-trusted divisions. In addition, efforts among the Big Three to collaborate with one another on certain technical issues such as emissions, product safety testing, and electric car battery development, but exclude Japanese automotive manufacturers (Stertz, 1991, Miller, 1992a; Miller, 1992b), may reflect some common trust in one another at the expense of their Japanese rivals.

The Importance of Trust in Non-Crisis Contexts

To conclude, recent discussions by both scholars and the business press suggest that trust is a central factor in organizational behavior and organizational survival for both public and private organizations even in non-crisis contexts. Several scholars have recently proposed that trust is a central factor enhancing organizations' long-term success and survival, especially as environments have become more uncertain and competitive. Peters (1987, p. 627) for example, argues that "the uncertainty of the environment can be swiftly dealt with only if the firm can fall

back upon the certainty of relationships among people and among groups -- in other words, upon trust and integrity." If organizations in the next two decades do become increasingly flat in their hierarchies and more information-based (Drucker, 1989), then trust is expected to become more important in organizational design and development to the extent that it facilitates decentralized decision making and the sharing of information.

The role of trust in other contexts is also important because trust may be necessary to maintain the vitality of capitalist economies and democratic political systems (Waterman, 1987; March & Olsen, 1989), and it appears to be decreasing, especially with respect to business organizations. "Even to compete, in a mutually non-destructive way, one needs at some level to *trust* one's competitors to comply with certain rules...this applies equally to political and economic undertakings" (Gambetta, 1988, p. 215). Polls show, however, that the public's trust in a variety of institutions over the past 25 years has steadily eroded, with major firms showing the largest decline, ahead of the press, major educational institutions, and even Congress (Benham, 1992). Recent scandals involving Dow Corning, General Electric, and TRW have been explicitly discussed as violations of the public's trust in these firms specifically and in business organizations generally (Gorman, 1992; Naj, 1992; Miller, 1991). In addition, the press has blamed repeated acts of fraud by GE on a lack of trust in top management by lower echelon employees (Naj, 1992) which has prevented them from identifying the firm's illegalities for fear of reprisal.

Both practitioners and scholars have even proposed that a new paradigm of management and organization must be developed with trust as a core component, if organizations, both profit and not-for-profit, are to survive into the 21st century (Sculley, 1987: 125). Indeed, Levering (1988), Aktouf (1992), and Davidow & Malone (1992) have asserted that a new paradigm must be developed where distrust is replaced with trust as a key organizing principle if organization theories and management practice are to meet the challenges of the 1990s and beyond.

REFERENCES

- Aktouf, O. 1992. Management and theories of organizations in the 1990s: Toward a critical radical humanism? Academy of Management Review, 17 (3), 407-431.
- Ancona, D. G. & Nadler, D. A. 1989. Top hats and executive tales: Designing the senior team. Sloan Management Review, Fall, 19-28.
- Arrow, K. J. 1985. The economics of agency. In J. W. Pratt & R. J. Zeckhauser (eds.), *Principals and agents: The structure of business* (pp. 37-51). Boston: Harvard Business School Press.
- Barber, B. 1983. The logic and limits of trust. New Brunswick, NJ: Rutgers University Press.
- Beer, M. Revitalizing organizations: Change process and emergent model. Academy of Management Executive, 1, 51-55.
- Bem, D. J. 1970. Beliefs, attitudes, and human affairs. Monterey, CA: Brooks/Cole Publishing Co.
- Benham, B. 1992. Why have we lost confidence? Investor's Business Daily, 1. June 12.
- Billings, R., Milburn, T., & Schaalman, M. 1980. A model of crisis perception: A theoretical and empirical analysis. Administrative Science Quarterly, 25, 300-316.
- Bourgeois, L. J. III 1981. On the measurement of organizational slack. Academy of Management Review, 6, 29-39.
- Bowditch, J. L. & Buono, A. F. 1994. A primer on organizational behavior. 3rd ed. New York: John Wiley & Sons, Inc.
- Business Week. 1992. GM tightens the screws. June 22.
- Butler, J. 1991. Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory. Journal of Management, 17 (3), 643-663.
- Cameron, K., Freeman, S., & Mishra, A. 1991. Best practices in white-collar downsizing: Managing contradictions. Academy of Management Executive, 5 (3), 57-73.
- Cameron, K., Freeman, S., & Mishra, A. 1993. Organizational downsizing. In George P. Huber and William H. Glick (eds.) Organizational change and redesign: Ideas and insights for improving performance, 19-65. New York: Oxford University Press.
- Cameron, K., Kim, M., & Whetten, D. 1987a. Organizational effects of decline and turbulence. Administrative Science Quarterly, 32, 222-240.
- Cameron, K., Whetten, D., & Kim, M. 1987b. Organizational dysfunctions of decline. Academy of Management Journal, 30 (1), 126-138.
- Clark, K. & Fujimoto, T. 1990. The power of product integrity. Harvard Business Review, 68 (6), 107-118.
- Conrad, C. 1990. Strategic organizational communication: An integrated perspective. 2nd ed. Chicago: Holt, Rinehart and Winston, Inc.

- Bromiley, P. & Cummings, L. 1993. Organizations with trust: Theory and measurement. Working Paper. Minneapolis, MN: University of Minnesota. Also presented at the 53rd annual meeting of the Academy of Management, Atlanta, GA, August 8-11.
- Cyert, R. M. & March, J. G. 1963. A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice-Hall.
- D'Aveni, R. 1989. The aftermath of organization decline: A longitudinal study of the strategic and managerial characteristics of declining firms. Academy of Management Journal, 32 (3), 577-605.
- D'Aveni, R. & MacMillan, I. 1990. Crisis and the content of managerial communications: A study of the focus of attention of top managers in surviving and failing firms. Administrative Science Quarterly, 35, 634-657.
- Davidow, W. H. & Malone, M. S. 1992. The virtual corporation. New York: Harper Collins.
- Davis, S. & Lawrence, P. 1977. Matrix. Reading, MA: Addison-Wesley.
- Deutsch, M. 1962. Cooperation and trust: Some theoretical notes. In Marshall R. Jones (ed.) Nebraska symposium on motivation. Lincoln, NE: University of Nebraska Press, pp. 275-319.
- Deutsch, M. 1973. The resolution of conflict: Constructive and destructive processes. New Haven, CT: Yale University Press.
- Donaldson, L. 1990. A rational basis for criticisms of organizational economics: A reply to Barney. Academy of Management Review, 15 (3), 394-401.
- Drucker, P. 1989. The new realities. New York: Harper & Row.
- Dutton, J. 1986. The processing of crisis and non-crisis strategic issues. Journal of Management Studies, 23 (5), 501-517.
- Fleming, A. 1991. Car makers' demands strain suppliers. Plastics News, April 8, p. 5.
- Flint, J. 1991. The worst of times. Forbes, October 28, 59-65.
- Follett, M. 1941 [1925]. Constructive conflict. In Henry C. Metcalf and L. Urwick. (eds.) Dynamic Administration: The Collected Papers of Mary Parker Follett, 30-49. New York: Harper.
- Gabarro, J. 1987. The dynamics of taking charge. Boston: Harvard Business School Press.
- Gambetta, D. 1988. Can we trust trust? In Diego Gambetta (ed.) Trust: Making and breaking cooperative relations, 213-237. Cambridge, MA: Basil Blackwell, Inc.
- Gibb, J. & Gibb, L. 1969. Role freedom in a TORI group. In A. Burton (ed.), Encounter theory and practice of encounter groups. San Francisco: Jossey-Bass, 42-57.
- Golembiewski, R. & McConkie, M. 1975. The centrality of trust in group processes. In Cary L. Cooper (ed.) Theories of group processes, 131-185 New York: John Wiley & Sons.
- Gorman, C. 1992. Can drug firms be trusted? Time, February 10, pp. 42-46.
- Granovetter, M. 1985. Economic action and social structure: The problem of embeddedness. American Journal Sociology, 91 (3) (November), 481-510.

- Grover, S. L. 1993. Lying, deceit, and subterfuge: A model of dishonesty in the workplace. Organization Science, 4 (3), 478-495.
- Hackman, R. & Oldham, G. 1980. Work redesign. Reading, MA: Addison Wesley.
- Hambrick, D. C. 1994. Top management groups: A conceptual integration and reconsideration of the "team" label. In B. M. Staw and L. L. Cummings (eds). Research in Organizational Behavior, 171-214. Greenwich, CT: JAI Press, Inc.
- Hermann, C. 1963. Some consequences of crisis which limit the viability of organizations. Administrative Science Quarterly, 8, 61-82.
- Janis, I. L. 1972. Victims of groupthink: Psychological studies of foreign policy decisions and fiascoes. New York: Houghton Mifflin.
- Janis, I. L. 1989. Crucial decisions: Leadership in policymaking and crisis management. New York: Free Press.
- Kanter, R. 1977. Men and women of the corporation. New York: Basic Books.
- Kanter, R. 1983. The change masters: Innovation and entrepreneurship in the American corporation. New York: Simon & Schuster.
- Kanter, R. 1989. When giants learn to dance. New York: Simon & Schuster.
- Katzenbach, J. R. & Smith, D. K. 1993. The wisdom of teams: Creating the high-performance organization. Boston: Harvard Business School Press.
- Kiesler, S. & Sproull, L. 1982. Managerial response to changing environments: Perspectives on problem sensing from social cognition. Administrative Science Quarterly, 27, 548-570.
- King, A. 1991. Suppliers: Big 3 price cuts are too deep. Crain's Detroit Business, May 20, p. 3.
- Kirkland, C. 1991. Do partnerships work in a recession? Plastics World, September 1991, 44-46.
- Kirkpatrick, S. & Locke, E. 1991. Leadership: Do traits matter? Academy of Management Executive, 5 (2), 48-60.
- Kotter, J. & Schlesinger, L. 1979. Choosing strategies for change. Harvard Business Review, 57 (March-April), 106-114..
- Lawrence, P. & Lorsch, J. 1967. Organization and environment. Boston: Harvard Business School Press.
- Levering, R. 1988. A great place to work. New York: Avon Books.
- Lewis, J. D. & Weigert, A. 1985a. Trust as a social reality. Social Forces, 63 (4), 967-985.
- Lewis, J. D. & Weigert, A. 1985b. Social atomism, holism, and trust. Sociological Quarterly, 26, 455-471.
- Luhmann, N. 1979. Trust and power. New York: J. Wiley.
- Luhmann, N. 1988. Familiarity, confidence, trust: Problems and alternatives. In D. Gambetta (ed.) Trust: Making and breaking cooperative relations, 94-107. Cambridge, MA: Basil Blackwell.
- Lorenz, E. H. 1992. Trust and the flexible firm. Industrial Relations, 31 (3), 455-472.

- March, J. G. 1981. Footnotes to organizational change. Administrative Science Quarterly, 26, 563-577.
- March, J. G. & Olsen, J. 1989. Rediscovering institutions: The organizational basis of politics. New York: The Free Press.
- Marcus, A. A. & Goodman, R. S. 1991. Victims and shareholders: The dilemmas of presenting corporate policy during a crisis. Academy of Management Journal, 34 (2), 281-305.
- McGregor, D. 1967. The professional manager. New York: McGraw-Hill.
- Microlytics. 1989. Gofer: A powerful software utility for searching, finding, and retrieving text. Pittsford, NY: Microlytics, Inc.
- Miller, M. 1991. TRW to give credit reports free of charge. Wall Street Journal, October 15.
- Miller, K. 1992a. Big Three to cooperate on efforts to meet clean-air rules. Wall Street Journal, June 9.
- Miller, K. 1992b. Detroit's Big Three form joint venture destined for disaster. Partnership, to build a a better crash dummy, is latest example of cooperation. Wall Street Journal, July 14.
- Mishra, A. K. 1992. Organizational responses to crisis: The role of mutual trust and top management teams. Unpublished dissertation. Ann Arbor, MI: The University of Michigan School of Business Administration.
- Mitroff, I. I., Mason, R. O., & Pearson, C. M. 1994. Framebreak, the radical redesign of American business. San Francisco: Jossey-Bass.
- Moorman, C., Zaltman, G., & Deshpande, R. 1992. Relationships between providers and users of market research: The dynamics of trust within and between organizations. Journal of Marketing Research, 29, 314-328.
- Naj, A. 1992. Auto-parts suppliers call off any recovery parties. The Wall Street Journal, November 18, B2.
- Nanus, B. 1989. The leader's edge: The seven keys to leadership in a turbulent world. Chicago: Contemporary Books.
- Ouchi, William G. 1981 Theory Z: How American business can meet the Japanese challenge. Reading, MA: Addison-Wesley.
- Pascale, R. 1990. Managing on the edge: How the smartest companies use conflict to stay ahead. New York: Simon & Schuster.
- Pauchant, T. C. & Mitroff, I. I. 1992. Transforming the crisis-prone organization: Preventing individual, organizational, and environmental tragedies. San Francisco, CA: Jossey-Bass.
- Pearson, C. M. & Mitroff, I. I. 1993. From crisis prone to crisis prepared: A framework for crisis management. Academy of Management Executive, 7 (1), 48-59.
- Perrow, C. 1984. Normal accidents: Living with high-risk technologies. New York: Basic Books.
- Peters, T. 1987. Thriving on chaos: Handbook for a management revolution. New York: Harper Collins. (HarperPerennial edition, 1991.)
- Pfeffer, J. 1978. Organizational design. Arlington Heights, IL: Harlan Davidson.

- Pfeffer, J. & Salancik, G. 1978. The external control of organizations. New York: Harper & Row.
- Roberts, K. H. & O'Reilly, C. A. III. 1974. Failures in upward communication in organizations: Three possible culprits. Academy of Management Journal, 17 (2), 205-215.
- Rogers, C. 1961. On becoming a person. Boston: Houghton-Mifflin.
- Sako, M. 1992. Prices, quality, and trust: Inter-firm relations in Britain & Japan. New York: Cambridge University Press.
- Sculley, J. 1987 Odyssey. New York: Harper & Row.
- Shellum, B. 1991. Caught in a vise. Detroit Free Press, August 8, p. F1-F2.
- Starbuck, W. & Hedberg, B. 1977. Saving an organization from a stagnating environment. In H. Thorelli (ed.), Strategy + Structure = Performance, 249-258. Bloomington, IN: Indiana University Press.
- Staw, B., Sandelands, L. & Dutton, J. 1981. Threat-rigidity effects in organizational behavior: A multilevel analysis. Administrative Science Quarterly, 26, 501-524.
- Stertz, B. 1991. In a u-turn from past policy, Big Three of Detroit speed into era of cooperation. Wall Street Journal, June 28.
- Swan, J., Trawick, I., Rink, D., & Roberts., J. 1988. Measuring dimensions of purchaser trust of industrial salespeople. Journal of Personal Selling & Sales Management, 8, 1-9.
- Thomas, K. 1979. Organizational conflict. In Steven Kerr (ed.) Organization behavior, 151-181. New York: J. Wiley & Sons Inc. Reprinted in Henry L. Tosi (ed.) Organizational behavior and management. A contingency approach, 203-232. Boston: PWS-Kent Publishing Co.
- Thompson, J. 1967. Organizations in Action. New York: McGraw-Hill.
- Turner, B. 1976. The organizational and interorganizational development of disasters. Administrative Science Quarterly, 21, 378-397.
- Vroom, V. H. & Yetton, P. W. 1973. Leadership and decision making. Pittsburgh: University of Pittsburgh Press.
- Walton, R. & McKersie, R. 1965. A behavioral theory of labor negotiations: An analysis of a social interaction system. New York: McGraw-Hill.
- Waterman, R. 1987. The renewal factor. New York: Bantam Books.
- Webb, E. 1994. Trust and Crisis. In Kramer, R. and Tyler, T. Trust in Organizations. Newbury Park, CA: Sage
- Webber, A. 1987. The statesman as CEO. Harvard Business Review, 65 (5),76-81.
- White, J. 1991. Japanese auto makers help U.S. suppliers become more efficient. The Wall Street Journal, September 8, p. A1.
- White, J. & Stertz, B. 1991. Crisis is galvanizing Detroit's Big Three. Wall Street Journal, May 2, 1991, p. B 1.
- Womack, J., Jones, D., & Roos, D. 1990. The machine that changed the world. New York: Macmillan.
- Zand, D. 1972. Trust and managerial problem solving. Administrative Science Quarterly, 17, 229-239.

Zucker, L. 1986. Production of trust: Institutional sources of economic structure, 1940-1920. Research in Organizational Behavior, 8, 53-111. Greenwich, CT: JAI Press, Inc.