Threat, Opportunity, and Network Interaction in Organizations

Sameer B. Srivastava

Haas School of Business
University of California, Berkeley

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¹Direct all correspondence to Sameer B. Srivastava, Haas School of Business, University of California, Berkeley, 2220 Piedmont Avenue, Berkeley, CA 94720; srivastava@haas.berkeley.edu; 617-895-8707. I thank the SPQ editors and reviewers, Max Bazerman, Frank Dobbin, Roberto Fernandez, Andreea Gorbatai, Richard Hackman, Laura Kray, Ming Leung, Omar Lizardo, Peter Marsden, Sanaz Mobasseri, Don Moore, Chris Muller, Sucheta Nadkarni, Jo-Ellen Pozner, Erin Reid, Eliot Sherman, Toby Stuart, András Tilesik, Cat Turco and participants of the MIT Economic Sociology Working Group, the Harvard Business School “Non-Lab,” the Academy of Management’s Cognition in the Rough Workshop, and Harvard’s Work, Organizations, and Markets Seminar for helpful comments and suggestions on prior drafts. Jim Dowd, Amy Edmondson, Pam Hallagan, Maura McCurdy, and Ingrid Peters helped me gain access to the Study 1 research site and supported my data collection efforts. Jim Cutler supplied his voice for the audio recordings used in the experiment. The usual disclaimer applies.

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Threat, Opportunity, and Network Interaction in Organizations

**Abstract:** This article examines how uncertain situations of threat or opportunity influence people’s choices to interact with their colleagues in an organization. The threat / opportunity lens encompasses two conceptually distinct dimensions, gain / loss and control / limited control, which are hypothesized to produce different patterns of network interaction. Two experimental studies—one involving 158 leaders in a health care organization and the other involving 129 employees in a range of smaller establishments—provided support for the proposed conceptualization. The studies found that (1) people chose to interact with more network contacts under loss than under gain; (2) those with an internal (external) locus of control chose to interact with more (fewer) network contacts under limited control than under control; and (3) the tendency to interact with more network contacts in loss rather than gain was greater for low-ranking actors, relative to high-ranking ones. These findings contribute to our understanding of the interplay between individual cognition and organizational social networks.
INTRODUCTION

Social networks within organizations serve to channel valuable resources and thereby influence individual attainment, as measured by performance ratings (Sparrowe, Liden, Wayne, and Kraimer 2001), promotions (Podolny and Baron 1997), and rewards (Burt 1992). The flow of resources through social networks becomes especially important to individual outcomes during periods of transformative change such as a restructuring (Srivastava in press), a merger (Allatta and Singh 2011), or major technological shift (Burkhardt and Brass 1990). These episodes often produce high levels of uncertainty about how people’s job roles and the resources they hold will change (Ashford 1988). Uncertainty, in turn, triggers the search for social resources, such as information, influence, and social support, from network contacts (Mizruchi and Stearns 2001).

An extensive literature has examined how individuals interpret and act upon uncertainty, typically stemming from the organization’s external environment (Chattopadhyay, Glick, and Huber 2001). A core insight is that people identify and interpret a wide range of situations—for example, the onslaught of competition from new market entrants, impending regulatory changes, or technological shifts—through the common lens of threat or opportunity (Jackson and Dutton 1988). When facing situations of threat or opportunity, people can position themselves for better outcomes by interacting with colleagues in the organization who can provide valuable resources. Examples of such resources include information about which job roles will be added or eliminated and political influence that can keep people’s name off employee layoff lists or help them secure a coveted new position.

Yet a long line of work, tracing back to classical accounts of resource mobilization through networks (e.g., Boissevain 1974; Lee 1969), has highlighted an important fact: just
because valuable resources are available through social relations does not always mean they will be accessed. For example, trust-based barriers (Smith 2007) and interpersonal affect (Casciaro and Lobo 2008) can drive a wedge between potential network contacts and those with whom a person actually chooses to interact. This divergence can be driven in part by how people perceive the situation they are in. Although recent work has started to reveal how perceptions of uncertain situations can influence the recall of network contacts (e.g., Smith, Menon, and Thompson 2012), it remains unclear how these interpretations affect not just the recall of contacts but also purposive choices to interact with those contacts. Moreover, prior research in this vein has not considered how the social structure within organizations can impinge on network interaction choices. Thus, this article addresses the question: how do uncertain situations of threat or opportunity affect people’s choices to interact with their network contacts in an organization?

In the sections that follow, I first derive hypotheses about network interaction under varying conditions of threat and opportunity. Next I report the results of two vignette-based experiments: one involving 158 senior leaders from one large organization (Study 1) and the other with 129 employees from a wide range of organizations (Study 2). I conclude with a discussion of the implications of these findings for research on the interplay between cognition and organizational social networks.

THEORY

Transformative organizational change, such as a restructuring or launch of a new business unit, often produces uncertainty for people within the organization. Uncertainty, in turn, leads people to seek interaction with network contacts who are potential sources of valuable social resources (Pearlin and Schooler 1978).
One of the most common lenses through which people view uncertain situations is threat / opportunity (Jackson and Dutton 1988). Recent work in this tradition has argued that threat / opportunity encompasses two distinct dimensions: the gain or loss of tangible resources and having control or feeling constrained to take action (George, Chattopadhyay, Sitkin, and Barden 2006; Ocasio 1995). These dimensions are associated with different social psychological mechanisms, which can fuel both instrumental and expressive network interaction.

Instrumental network interaction involves attempts to manage the sources of uncertainty through the acquisition of information and influence (Lin 2001). For example, people may search for information from colleagues about which new job roles are likely to be created and which will be substantially changed or eliminated (Ashford 1988). Similarly, they may seek to gain political influence from colleagues who can help them keep desired current positions or lobby on their behalf when they are being considered for coveted new positions (Pfeffer 1992).

Expressive network interaction entails “behavioral or cognitive responses whose primary function is to manage the emotional consequences of stressors and to help maintain one's emotional equilibrium” (Billings and Moos 1981: 141). In other words, people facing uncertainty tend to share sentiments, affirm their identities, and exchange social support with colleagues in the organization (Lin 2001).

Network Interaction in Situations of Loss or Gain

The theory of loss aversion supplies predictions about network interaction when people face uncertain situations of loss or gain. It suggests that risk attitudes and behavior are based not only on the expected returns of a decision but also on where the decision outcome stands relative to a predetermined reference point in the mind of the decision maker (Kahneman and Tversky 1979; Tversky and Kahneman 1990). A core prediction is that the disutility associated with loss
is greater than the utility associated with a gain of the same size. This empirical pattern applies not only to economic decisions but also to situations involving the gain or loss of intangible goods such as social standing. For example, people assign greater value to status when thinking about potential status loss than when considering potential status gain (Pettit, Yong, and Spataro 2010). The underlying mechanism is effort. People who stand to lose tangible resources or their status exert greater effort to avoid those losses than do people who believe they might gain tangible resources or status.

Because network interaction also requires the expenditure of effort, I argue that the predictions of loss aversion apply not only to individual decision making on economic matters but also to interpersonal decision making on social matters. Consider, for example, a person facing the uncertainty of organizational change. To mobilize social resources such as non-redundant information that could help in coping with uncertainty, the person must first identify the set of colleagues who are most likely to possess such information. Then, having identified those individuals, the person may have to schedule multiple meetings or calls, synthesize and reconcile the information provided, and follow up on leads for additional information. Similarly, the exchange of expressive resources requires effort because it entails psychological costs—for example, having to deal with the distress of others who are sources of information or influence but who are themselves affected by the organizational change (Fiore, Becker, and Coppel 1983; Kessler and McLeod 1984). Because people facing potential loss are inclined to expend greater effort than are people facing potential gain, the former are apt to interact with more network contacts than are the latter. Thus, I expect:
Hypothesis 1: People will choose to interact with more intra-organizational network contacts in situations of loss than in situations of gain.

Network Interaction in Situations of Limited Control or Control

Although loss aversion allows us to make predictions about network interaction in uncertain situations of loss or gain, it does not speak to the second dimension that undergirds threat / opportunity: control / limited control. Personal control is a psychological construct “reflecting an individual’s beliefs, at a given point in time, in his or her ability to effect change, in a desired direction on the environment” (Greenberger and Strasser 1986: 165). A long line of research, spanning personality, social, clinical, health, and developmental psychology, has shown that control needs are fundamental and can give rise to social action (Fiske and Dépret 1996; Glavin and Schieman 2014).

The theory of psychological reactance proposes that, when people encounter an actual or threatened restriction in control, they experience a motivational arousal to recover control (Brehm 1966). Yet responses to a perceived restriction of control are not uniform across individuals. A well-established individual difference construct, locus of control (Rotter 1954; Rotter 1966), importantly influences how people respond to situations of restricted control. People vary in the extent to which they believe their own actions, as opposed to the actions of others, fate, or change, influence their outcomes. Those who believe they have considerable agency to shape their fortunes are characterized as having an internal locus of control, while those who believe that outside forces determine their outcomes are referred to as having an external locus of control. This personality trait has been widely studied (for a review, see

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2 If repeated attempts to regain control over a situation fail, people can later enter a state of learned helplessness (Seligman 1975; Wortman and Brehm 1975).
Lefcourt [1982]) and linked to a wide range of organizational behavior (Ng, Sorensen, and Eby 2006).

In experimental studies, people with an internal locus of control (internals) exhibit greater reactance when faced with the elimination of personal freedom than do those with an external locus of control (externals) (Cherulnik and Citrin 1974; Moyer 1978). Moreover, internals respond to situations of limited control by engaging in outward behaviors, while externals withdraw or engage in inward behaviors (Lefcourt 2014; Phares 1976). Internals also exhibit a greater tendency to engage in instrumental network interaction than do externals (Anderson 1977; Parkes 1984). Similarly, with respect to expressive network interaction, internals have more sources of social support (Hansson, Jones, and Carpenter 1984) and are more likely to mobilize that support than externals (Eckenrode 1983). In sum, internals are more likely than externals to exhibit reactance when faced with situations of restricted control and to channel the resulting motivational arousal toward others in the form of network interaction. Thus, I anticipate:

**Hypothesis 2:** People with an internal (external) locus of control will choose to interact with more (fewer) intra-organizational network contacts in situations of limited control than in situations of control.

**The Moderating Role of Organizational Rank on Network Interaction**

In organizational settings, I propose that a person’s rank within the organization will moderate the effects of uncertain loss or gain on network interaction.³ Rank is typically

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³ I do not theorize about the moderating role of organizational rank on perceptions of control over situations because rank is itself correlated with control. For example, executives will have greater actual and perceived control over a
correlated with a person’s status in the organization but also shapes his or her opportunity structure for interaction. How can organization rank be expected to shape network interaction choices under loss versus gain?

On one hand, social psychological research suggests that high status actors facing the prospect of losing resources are more likely to think of themselves as competent, confident, and agentic than low status actors and are therefore more inclined to take social risks and to approach others (e.g., Keltner, Gruenfeld, and Anderson 2003). Thus, high status actors can be expected to “become more outwardly focused, activate broader networks, and fulfill the prophecy that they are indeed high status, well connected, and competent” (Smith, Menon, and Thompson 2012: 70). Insofar as high-ranking individuals also enjoy elevated status, this perspective suggests that they will choose to interact with more network contacts than will low-ranking actors.

Yet social network dynamics emerge not only through the process of individual cognition and choice but are also conditioned by the opportunity structure for interaction (Blau 1994; Zeng and Xie 2008). Choice is “based purely on preferences for alternatives under consideration,” whereas opportunity structure refers to all of the external factors (e.g., availability, accessibility, and abundance) that influence choice (Zeng and Xie 2008: 618). Within organizations, the formal structure (e.g., who reports to whom, which departments or work groups people belong to, and what positions in the hierarchy they occupy) importantly shapes opportunities for interaction. Thus, across diverse empirical settings, intra-organizational networks have been shown to hew to the formal organizational structure (Kleinbaum, Stuart, and Tushman 2013; Reagans and McEvily 2003; Srivastava and Banaji 2011).

given situation than rank-and-file employees because of differences in the resources they control, the decision rights they enjoy by virtue of their formal position, and the norms by which they are expected to operate.
I argue that the opportunity structure facing high-ranking actors in the organization will impose a stronger constraint on network interaction than will that facing low-ranking actors. Because networks within organizations are characterized by rank homophily—that is, people are more likely to form connections to colleagues at the same vertical position in the hierarchy than to colleagues of varying rank (e.g., Han 1996)—and because organizational hierarchies are typically pyramidal in shape (e.g., Lin, Ensel, and Vaughn 1981), high-ranking actors will have a smaller pool of contacts in the consideration set to interact with than will low-ranking actors. Thus, even if individuals of high rank are motivated to exert greater effort in network interaction under conditions of loss than under gain, they will have a smaller pool of relevant contacts to draw up on than will low-ranking actors. Thus, I propose:

**Hypothesis 3:** The tendency to interact with more intra-organizational network contacts in situations of loss, rather than gain, will be amplified for low-ranking organizational actors, relative to high-ranking ones.

The two experimental studies described below provided complementary insights on these hypotheses. Although both studies used the same vignette-based manipulation, they differed in three important respects: (1) organizational context, (2) nature of participants, and (3) role of network recall. Study 1 was set in a large, differentiated organization and, because all participants worked in the same organization, implicitly controlled for contextual features such as internal communication norms that could impinge on network interaction choices. To address concerns about the generalizability of findings from Study 1, Study 2 instead drew subjects from a wide range of establishments. As for the nature of participants, Study 1 was targeted to
relatively senior employees with limited heterogeneity in rank and was therefore less well suited to testing Hypothesis 3. Study 2 was better suited to testing this hypothesis because it included subjects of varying organizational rank. Finally, the two studies provided differing insights on the process of network recall and interaction. Whereas the design of Study 1 provided no way to separate these two processes, Study 2 was designed to isolate the effects of situational uncertainty on network interaction choices. In particular, participants in Study 2 made network interaction choices conditioned on the recall of contacts.

STUDY 1

Method

Study participants. 158 senior leaders in a large health care company who participated in a customized executive education program at an east coast business school served as research subjects for this vignette-based experimental study (63% of those invited). Because the sample included long-tenured employees who had experienced a great deal of organizational change, it was possible to construct experimental scenarios to which they could easily relate and about which they could respond based on past experience. Over 75% reported having experienced a comparable situation at least once in the past.

Procedure. Participants were randomly assigned to one of four conditions: (1) loss / limited control; (2) loss / control; (3) gain / limited control; and (4) gain / control. After answering some background questions, participants were presented with the manipulation (described below). They then answered questions about whom they would interact with if faced with such a situation and then completed additional items (e.g., locus of control scale).
I defined an indicator, *Loss*, which was set to 1 for participants in the two loss conditions. Similarly, the indicator, *Limited Control*, was set to 1 for participants in the two limited control conditions. These terms and interaction effects involving these terms were included as covariates in the regression analyses reported below.

**Manipulation.** Participants were asked to imagine a hypothetical situation playing out in their organization. They next listened to a voicemail recording of an actor playing the part of the company’s CEO who described an impending organization-wide change. They had the option to rewind or replay the recording as many times as they wished and could view a transcript of the recording. Next they read details of a hypothetical conversation they had with a trusted colleague who was well placed in the organization and who had been a reliable source of information in the past. This text highlighted how the situation could potentially affect the participant. Table 1 summarizes the experimental conditions. The complete manipulation appears in the Appendix.

**Network Interaction.** Participants were presented with the following text: “Most people discuss important matters, such as the situation just described, with others within and outside their organization. In the boxes below, please list the initials of the people with whom you would discuss this situation.” Then they were asked two standard name generators (Burt 1984): “Who are the people within [Company] with whom you would discuss this situation?” and “Who are the people outside [Company] with whom you would discuss this situation?” Participants could list up to 13 initials per question (26 in total). Only four participants (2.5% of

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4 In pre-tests, I experimented with different approaches—having participants just read text descriptions of the vignettes, showing a video clip of an actor playing the role of the CEO, and playing audio clips of the actor and then providing an additional text description. With text alone, participants were prone to skim the content, resulting in a weak manipulation. With video, participants tended to focus on irrelevant visual details, which introduced considerable noise. The combination of audio and a text description produced the clearest and strongest manipulation.
participants) reached either of the two name limits. The dependent variable (mean = 4.20; SD = 2.82) was a count of the contacts listed in response to the first question; i.e., the number of intra-organizational network contacts with whom the participant indicated that he or she would choose to interact.  

**Locus of Control.** For locus of control, I used 12 items from a validated and widely used scale that is adapted to workplace settings (Spector 1988): (1) “A job is what you make of it;” (2) “On most jobs, people can pretty much accomplish whatever they set out to accomplish;” (3) “If employees are unhappy with a decision made by their boss, they should do something about it;” (4) “Making money is primarily a matter of good fortune;” (5) “Most people are capable of doing their jobs well if they make the effort;” (6) “Promotions are usually a matter of good fortune;” (7) “Promotions are given to employees who perform well on the job;” (8) “To make a lot of money, you have to know the right people;” (9) “It takes a lot of luck to be an outstanding employee on most jobs;” (10) “People who perform their jobs well generally get rewarded for it;” (11) “Most employees have more influence on their supervisors than they think they do;” and (12) “The main difference between people who make a lot of money and people who make a little money is luck.” Responses could range from “Strongly Disagree” to “Strongly Agree” on a six point scale. Reverse coding items 4, 6, 8, 9, and 12, I constructed a composite measure (alpha = 0.72; mean = 4.74; SD = 0.50), Locus of Control. Higher values indicated an internal, rather than external, locus of control. This variable was mean-centered in regression models where it was used as part of an interaction term.  

**Organizational Rank.** Following the name generators, participants were asked about their rank in the organization: individual contributor or manager / executive. Because

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5 Comparable results (not reported) were obtained using an alternative dependent variable that summed network contacts listed within and outside the organization.
participants in the study were recruited from an executive education program, the overwhelming majority (93%) were managers/executives. I defined an indicator, High Rank, which was set to 1 for these individuals.

**Results**

**Manipulation checks.** There were three manipulation checks: (1) perceived uncertainty about the situation; (2) perceived gain or loss; and (3) perceived control or limited control. For perceived uncertainty, I used four items (Caplan et al., 1975): “Based on what you have learned so far about this situation, how certain are you about…” (1) “…what your specific job responsibilities will be six months in the future?” (2) “…what your future career picture in this organization looks like?” (3) “…how much the financial rewards you could expect to receive will change?” and (4) “…how much your status in the organization will change?” Responses could range from 1 (“Not at all certain”) to 4 (“Very certain”). I then created a composite measure, Perceived Uncertainty (alpha = 0.84; mean = 1.65; SD = 0.66), from these four items. There were no significant differences in perceptions of uncertainty across the four conditions. Because the hypotheses are about uncertain situations of gain/loss or control/limited control and given that participants reported varying levels of perceived uncertainty, I included Perceived Uncertainty as a control in the analyses presented below. (Comparable results were obtained when it was excluded as a control.)

For perceived gain or loss, I adapted four items used in prior work (Highhouse, Mohammed, and Hoffman 2002): “How likely is it that…” (1) “…this situation will result in a successful outcome for you?” (2) “…you may lose from this event and are unlikely to gain?” (3) “…you may gain in this situation and are unlikely to lose?” and (4) “…there will be personal loss for you in this situation?” Responses could range from 1 (“Very unlikely”) to 4 (“Very
likely”). Reverse coding the second and fourth items, I created a composite measure of perceived gain (alpha = 0.86; mean = 2.71; SD = 0.60). Respondents in the two loss conditions perceived significantly less potential gain than those in the two gain conditions (p < 0.001).

For perceived limited control, I adapted four items from prior research (Pearlin and Schooler 1978): “How likely is it that …” (1) “…you will be able to control what happens to you next in the organization?” (2) “…what happens to you next in the organization mostly depends on what you do?” (3) “…you will not be able to influence organizational decisions that relate to you?” and (4) “…you will have the freedom to choose or design the job role you want?” Responses could range from 1 (“Very unlikely”) to 4 (“Very likely”). Reverse coding the third item, I constructed a composite measure of perceived control (alpha = .78; mean = 2.60; SD = 0.62). Participants in the two limited control conditions perceived having significantly less influence over the situation than those in the two conditions of control (p < 0.01). Overall, the manipulation checks indicated that participants’ perceptions of the hypothetical situations were consistent with those intended in the study design. Table 2 provides descriptive statistics and a correlation matrix.

Table 3, Model 1 reports results of regression models used for hypothesis testing in Study 1. Because the dependent variable was a count measure that exhibited overdispersion, I estimated negative binomial regression models. Hypothesis 1 posits a positive main effect of Loss. Because the model includes both Loss and Loss × High Rank, I tested and found support for Hypothesis 1 by conducting a joint Wald test of the significance of the two covariates (p < 0.001). Participants in the gain conditions are predicted to choose 3.6 network interaction partners, while those in the loss condition are predicted to discuss the situation with 4.7 network interaction partners.
Consistent with Hypothesis 2, the interaction term, \( \text{Limited Control} \times \text{Locus of Control} \), is positive and significant \( (p < 0.01) \). Externals at the 25\(^{th}\) percentile of the composite locus of control measure are predicted to choose 4.4 network interaction partners in the control condition and 3.6 network interaction partners in the limited control condition. By contrast, internals at the 75\(^{th}\) percentile of the composite locus of control measure are predicted to choose 3.8 network interaction partners in the control condition and 4.4 network interaction partners in the limited control condition.

Finally, in line with Hypothesis 3, the interaction term, \( \text{Loss} \times \text{High Rank} \), is negative and significant \( (p < 0.001) \). Employees of lower rank are predicted to choose 2.0 network interaction partners in the gain condition and 5.8 interaction partners in the loss condition. In contrast, high-ranking employees are predicted to exhibit more modest differences in the choice of interaction partners between loss and gain. They are predicted to choose 3.6 interaction partners in gain and 4.5 in loss.\(^6\)

****Table 3 about here****

Study 1 provided support for all three hypotheses. Yet it also had certain limitations. It was not possible in Study 1 to analytically distinguish the mere recall of contacts from the purposive choice to interact with these contacts. In addition, there was limited variation in the rank of Study 1 participants. They were generally of high organizational rank and therefore likely to occupy higher rungs on the socioeconomic status ladder. Prior research has shown that socioeconomic status can influence which contacts come to mind when people think about situations that could affect their well-being (Smith, Menon, and Thompson 2012). Study 2 was designed to address these limitations.

\(^6\) To assess whether the two dimensions—Loss and Limited Control—jointly influenced network interaction choices, I also estimated a model that included Loss, Limited Control, and Loss \( \times \) Limited Control. The interaction term is positive (beta = 0.234) but not significant \( (p = 0.260) \), lending no support for the expectation of joint influence.
STUDY 2

Method

Study participants. 129 individuals in the on-line subject pool at an east coast business school participated in this study for $5 of compensation. Participants were pre-screened to identify US-based employed individuals in establishments with at least 25 people. Compared to Study 1, a somewhat lower percentage (61%) of respondents reported having experienced a situation like the one described in the manipulation at least once in the past.

Procedure and Manipulation. The experimental procedure and manipulation were identical to those used in Study 1, except that the order of the manipulation and the name generators was reversed. Participants were first asked to elaborate three kinds of networks: people within the organization with whom they worked closely, people within the organization with whom they did not work closely but still considered important contacts, and people outside the organization whom they considered important contacts. Following the manipulation, participants could indicate with a “yes” or “no” response whether they would choose to discuss the situation with each of the contacts listed prior to the manipulation. They could identify which individuals they would choose to interact with from the set of contacts elaborated prior to the manipulation and name any additional contacts with whom they would choose to discuss the situation.

As in Study 1, I defined an indicator, Loss, which was set to 1 for participants in the two loss conditions and an indicator, Limited Control, which was set to 1 for participants in the two limited control conditions. I included these terms and interaction effects involving these terms in the regression analyses reported below.
Network Interaction. As in Study 1, the dependent variable (mean = 2.94; SD = 1.72) was a count of the number of intra-organizational network contacts with whom the participant indicated that he or she would choose to interact.

Locus of Control. For locus of control, I used the same 12 items as reported in Study 1 and constructed a composite measure (alpha = 0.66; mean = 4.05; SD = 0.58), Locus of Control. This variable was again mean-centered in regression models where it was used as part of an interaction term.

Organizational Rank. Following the name generators, participants were asked about their rank in the organization: individual contributor or manager / executive. I defined an indicator, High Rank, which was set to 1 for individuals in manager / executive roles (33% of the sample). Thus, unlike in Study 1, there was considerable heterogeneity in rank among participants in Study 2.

Results

Manipulation checks. I used the same manipulation checks (i.e., the same three composite measures) as in Study 1. There were no significant differences in the composite measure of perceived uncertainty (alpha = 0.86; mean = 2.43; SD = 0.83) across the four conditions. Because participants varied in their perceptions of uncertainty, I again included Perceived Uncertainty as a control in the analyses reported on below. (Comparable results were obtained when this variable was not included as a control.) Participants in the two gain conditions reported significantly more perceived gain on the composite measure of perceived gain (alpha = 0.81; mean = 2.59; SD = 0.71) than did those in the two loss conditions (p < 0.001). Similarly, participants in the two control conditions reported having significantly more influence over the situation on the composite measure of perceived control (alpha = 0.71; mean
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= 2.38; SD = 0.70) than did those in the two limited control conditions (p < 0.001). In sum, the manipulations appeared to produce their intended effects in participants’ perceptions of the situation. Table 4 provides descriptive statistics and a correlation matrix.

Table 4 about here

Table 3, Model 2 reports results of regression models used for hypothesis testing in Study 2. Because the dependent variable again exhibited overdispersion, I estimated negative binomial regression models. Because the model includes both Loss and Loss × High Rank, I tested and found support for Hypothesis 1 by conducting a joint Wald test of the significance of the two covariates (p < 0.001). Participants in the gain conditions are predicted to choose 2.4 network interaction partners, while those in the loss condition are predicted to discuss the situation with 3.4 network interaction partners. In support of Hypothesis 2, the interaction term, Limited Control × Locus of Control, is positive and significant (p < 0.05). Externals at the 25th percentile of the composite locus of control measure are predicted to choose 2.8 network interaction partners in the control condition and 2.4 network interaction partners in the limited control condition. In comparison, internals at the 75th percentile of the composite locus of control measure are predicted to choose 2.8 network interaction partners in the control condition and 3.1 network interaction partners in the limited control condition.

With respect to Hypothesis 3, the interaction term, Loss × High Rank, is negative and significant (p < 0.01). Participants of lower rank are predicted to choose 2.2 network interaction partners in the gain condition and 3.5 interaction partners in the loss condition. In contrast, the
network interaction choices of high-ranking participants are predicted to be the same in gain or loss: 2.9 partners in both cases.\textsuperscript{7}

Study 2 replicated all of the findings from Study 1. It helped establish that (1) the findings from Study 1 generalize to other organizational contexts and across a broader range of employees; and (2) the observed differences across experimental conditions reflect purposive network interaction choices rather than just differences in the recall of those contacts.

\section*{DISCUSSION}

Given that the flow of resources through interpersonal networks during periods of organizational change can shape career trajectories, this article has sought to clarify how organizational actors make intra-organizational network interaction choices when they face uncertain situations of threat or opportunity. The threat / opportunity lens is nearly ubiquitous (Jackson and Dutton 1988) but encompasses two distinct dimensions—gain / loss and control / limited control (George, Chattopadhyay, Sitkin, and Barden 2006). Each is associated with distinct mechanisms, which produce different patterns of network interaction. Two experimental studies—one involving 158 senior leaders in a large health care organization and the other involving 129 employees of varied rank in a range of smaller establishments—provided support for the proposed conceptualization.

Consistent with the theory of loss aversion (Tversky and Kahneman 1990), participants chose more network interaction partners in situations of loss than in situations of gain. In line with theories of how people cope with the loss of personal control (e.g., Fiske and Dépret 1996) and extensive prior work on the locus of control (e.g., Lefcourt 2014), internals chose more

\textsuperscript{7} I again tested but found no support for the proposition of the joint influence of Loss and Limited Control. Loss \times Limited Control is slightly negative (beta = -0.087) but not significant (p = 0.671) in a model that included Loss, Limited Control, and the interaction term.
network interaction partners in situations of limited control relative to situations of control, whereas externals exhibited the opposite response. Finally, in both studies the tendency to choose more network interaction partners in situations of loss, rather than gain, was greater for lower-ranking individuals compared to those of higher rank.

Because the research design relied on vignette-based experiments, it was not possible to examine how whether the network interaction choices that people indicated in the study would translate into actual networking behaviors in the workplace. Future research could include more behavioral indicators of network interaction and resource mobilization such as asking participants to identify specific information they obtained from network contacts. It may also prove useful to combine surveys of the kind used in this study with analyses of archived electronic communications among employees who experienced transformative change in their organization such as a large-scale restructuring (Srivastava in press).

It is also worth noting that uncertain events sometimes do not fall neatly into buckets of threat or opportunity; rather, some situations are ambiguous (Cacioppo and Berntson 1994; Plambeck and Weber 2009). Moreover, interpretations of threat and opportunity vary across cultural settings (Barr and Glynn 2004). Future research can profitably examine how people make network interaction choices when facing ambiguous situations and operating in different cultural contexts.

Finally, it was not possible with this study design to fully disentangle the various potential mechanisms that could produce differences in network interaction choices. For example, those facing a situation of gain might feel inhibited from interacting with others if they worry they will come across as self-promoting or self-congratulatory. Similarly, those facing a situation of loss may lack the confidence to reach out to less familiar network contacts. Future
research could supplement experimental designs of the kind used in this study with qualitative interviews or surveys to distinguish among these mechanisms.

Findings from this study make a number of noteworthy contributions. First, they bring to the social resources perspective in network research (Lin 2001; Seibert, Kramer, and Liden 2001; Srivastava 2015) insight into how network interaction choices unfold within organizational settings. This work indicates that, when examining intraorganizational network interaction choices, it is not adequate to simply consider whether people regard situations as threats or opportunities. Rather, people can feel threatened (or see opportunity) in two distinct ways. One is if they feel they have the potential to lose (gain) valuable resources. The other is if they feel constrained (free) to take action. In addition, whereas recent work on perceptions of situations has focused on the consequences for the recall contacts, the present study demonstrates that perceptions of situations can also influence purposive network interaction choices. Finally, this study also suggests the need to complicate prevailing accounts of the role of status in network recall and interaction (Smith, Menon, and Thompson 2012). In contrast to prior findings, high-ranking individuals in these studies (who also had relatively high status) chose to interact with fewer intra-organizational network contacts under conditions of loss than did those of lower rank. One explanation for this divergence is that the former may have spontaneously recalled more contacts under loss but then culled this list given the anticipated opportunity structure for interaction. Differences in the manipulation could also have accounted for differences in results. Whereas Smith, Menon, and Thompson (2012) used a single threat manipulation, the present studies disaggregated threat into loss and limited control. Further work in settings where opportunity structures impinge on network interaction choices is needed to evaluate these and other possible explanations for these inconsistent results.
This study also contributes to research on loss aversion, which has focused on the individual and economic realms of decision making. Recent work has shown that loss aversion even extends into domains where what is gained or lost is intangible—for example, a person’s social standing (Pettit, Yong, and Spataro 2010). The present study is, to my knowledge, first to bring the study of loss aversion into the interpersonal and social domain. It demonstrates that perceptions of gain or loss can also influence how people navigate their social networks.

Finally, these findings expand our understanding of how individual differences—such as self-monitoring orientation (Sasovova, Mehra, Borgatti, and Schippers 2010), need for cognition (Anderson 2008), and implicit collaborative self-concept (Srivastava and Banaji 2011)—can influence interpersonal network dynamics (for a recent review, see Burt, Kilduff, and Tasselli 2013). To my knowledge, the study represents the first effort to investigate the role of another well-established construct, locus of control, in shaping network action. Internals responded to situations of limited control by more vigorously interacting with their intra-organizational network contacts, whereas externals exhibited the opposite response. This result underscores the need to consider the interplay of situations and individual differences in shaping network interaction choices (cf. Ross and Nisbett 1991).

In sum, this article demonstrates the value of examining how people’s perceptions of transformative organizational change fuel social network dynamics in the workplace. It also highlights the promise of using field-based experiments to help unearth the interrelationships between individual cognition and social structure within organizations.

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8 This result should, however, be interpreted with caution because it is based on subgroup analysis that is not experimental in nature (i.e., participants were not assigned to experimental conditions of internal or external locus of control) (Gerber and Green 2012).
References


Administrative Science Quarterly 35:104-127.


### Table 1: Overview of Manipulation

<table>
<thead>
<tr>
<th></th>
<th>Loss</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control</strong></td>
<td>Uncertain Threat of Downward Mobility</td>
<td>Uncertain Opportunity for Upward Mobility</td>
</tr>
<tr>
<td></td>
<td>Freedom to Shape Job Role and Potential to Influence Decision</td>
<td>Multiple Available Job Roles and Considerable Freedom to Choose</td>
</tr>
<tr>
<td></td>
<td>Outcome</td>
<td>Among Them</td>
</tr>
<tr>
<td><strong>Limited Control</strong></td>
<td>Uncertain Threat of Downward Mobility</td>
<td>Uncertain Opportunity for Upward Mobility</td>
</tr>
<tr>
<td></td>
<td>Limited Influence over Job Role or Decision Outcome</td>
<td>One Available Job Role and Limited</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Influence over Decision Outcome</td>
</tr>
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Table 2: Descriptive Statistics and Correlation Matrix (Study 1)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
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<tr>
<td>(1) Number of Network</td>
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<td></td>
<td></td>
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<tr>
<td>Interaction Partners</td>
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<tr>
<td>(2) Loss</td>
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<td>0.20*</td>
<td>1.00</td>
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</tr>
<tr>
<td>(3) Limited Control</td>
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<td>0.01</td>
<td>1.00</td>
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<tr>
<td>(4) Locus of Control</td>
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<td>(5) High Rank</td>
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<td>(8) White</td>
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<td>0.45</td>
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<td>0.15</td>
<td>-0.00</td>
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<td>(9) Now Married</td>
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<td>(10) Past Experience</td>
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<td>0.06</td>
<td>0.15</td>
<td>0.04</td>
<td>-0.12</td>
<td>1.00</td>
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<td>with Scenario</td>
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</table>

* p<0.05, ** p<0.01, *** p<.001
### Table 3: Negative Binomial Regressions of Network Interaction Partners Chosen on Covariates

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (Study 1)</th>
<th>Model 2 (Study 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss</td>
<td>1.243** (0.270)</td>
<td>0.513*** (0.137)</td>
</tr>
<tr>
<td>High Rank</td>
<td>0.783*** (0.158)</td>
<td>0.267* (0.135)</td>
</tr>
<tr>
<td>Loss × High Rank</td>
<td>-1.037*** (0.262)</td>
<td>-0.457** (0.169)</td>
</tr>
<tr>
<td>Limited Control</td>
<td>-0.027 (0.101)</td>
<td>-0.034 (0.094)</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>-0.228 (0.123)</td>
<td>-0.024 (0.109)</td>
</tr>
<tr>
<td>Limited Control × Locus of Control</td>
<td>0.532** (0.168)</td>
<td>0.330* (0.165)</td>
</tr>
<tr>
<td>Perceived Uncertainty</td>
<td>-0.032 (0.080)</td>
<td>0.078 (0.070)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.582* (0.253)</td>
<td>0.595** (0.199)</td>
</tr>
<tr>
<td>lnalpha</td>
<td>-1.819*** (0.273)</td>
<td>-16.008*** (1.142)</td>
</tr>
<tr>
<td>(\chi^2)</td>
<td>15.16</td>
<td>26.4</td>
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<tr>
<td>Prob &gt; (\chi^2)</td>
<td>.034</td>
<td>.000</td>
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<td>N</td>
<td>158</td>
<td>129</td>
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* p<0.05, ** p<0.01, *** p<0.001; two-tailed tests; robust standard errors in parentheses.
Table 4: Descriptive Statistics and Correlation Matrix (Study 2)

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<th>(7)</th>
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<tbody>
<tr>
<td>(1) Number of Network Interaction Partners</td>
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</tr>
<tr>
<td>(2) Loss</td>
<td>0.47</td>
<td>0.50</td>
<td>0.26**</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(3) Limited Control</td>
<td>0.54</td>
<td>0.50</td>
<td>0.00</td>
<td>0.12</td>
<td>1.00</td>
<td></td>
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<tr>
<td>(4) Locus of Control</td>
<td>4.05</td>
<td>0.58</td>
<td>0.09</td>
<td>-0.01</td>
<td>0.07</td>
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<tr>
<td>(5) High Rank</td>
<td>0.33</td>
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<td>0.03</td>
<td>-0.16</td>
<td>-0.06</td>
<td>-0.26**</td>
<td>1.00</td>
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<td>(6) Age</td>
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<td>0.05</td>
<td>0.02</td>
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<td></td>
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<tr>
<td>(7) Female</td>
<td>0.50</td>
<td>0.50</td>
<td>-0.03</td>
<td>-0.13</td>
<td>-0.15</td>
<td>-0.20*</td>
<td>0.47***</td>
<td>-0.00</td>
<td>1.00</td>
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<td></td>
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<tr>
<td>(8) White</td>
<td>0.81</td>
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<td>-0.02</td>
<td>-0.03</td>
<td>0.08</td>
<td>-0.01</td>
<td>0.20*</td>
<td>0.14</td>
<td>0.20*</td>
<td>1.00</td>
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<tr>
<td>(9) Now Married</td>
<td>0.64</td>
<td>0.48</td>
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<td>-0.07</td>
<td>-0.10</td>
<td>-0.11</td>
<td>0.45***</td>
<td>0.48***</td>
<td>0.25**</td>
<td>0.14</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>(10) Past Experience with Scenario</td>
<td>0.61</td>
<td>0.49</td>
<td>0.07</td>
<td>-0.01</td>
<td>-0.06</td>
<td>0.02</td>
<td>0.32***</td>
<td>0.50***</td>
<td>-0.04</td>
<td>0.03</td>
<td>0.34***</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.01, *** p<.001
CEO Voicemail: Good morning. I would like to share some important news with you. In light of changing business conditions, we have decided today to implement a [Loss: restructuring / Gain: new growth plan], which will result in some changes in organizational structure and reporting lines.

Later today, you will receive a memo that outlines these changes and explains why they are necessary to ensure the long-term health and competitiveness of our enterprise. As these changes play out, you can expect to receive regular updates from me and others in your management team. Thank you for your attention and support.

Follow-up Communication: After listening to the voicemail from the CEO, you had a private meeting with a trusted colleague who works elsewhere in the organization. This colleague has heard through the grapevine (i.e., through unofficial channels) some additional details about the situation and what it might mean for you. The colleague is well placed in the organization and has been a reliable source for you in the past.

[Loss: Your colleague informed you that – as part of the reorganization – the organizational unit you are in will be merged with another unit. Your manager, who heads your unit, will be moving to a different part of the organization. The head of the other unit will run the combined group.]

Several different options for how to structure the combined entity are being considered. One option would involve inserting a management layer between you and the new unit head (i.e., you would report to someone else, who would report to the unit head). The person they are considering to be your new manager is someone from the other unit whom you do not know well but have generally considered a peer.]

[Gain – Limited Control: Your colleague informed you that – as part of the reorganization – a new position is opening up to lead a new unit that will pursue exciting new growth opportunities for the organization. There are several candidates for this position, and you are among those being considered.]

[Gain – Control: Your colleague informed you that – as part of the reorganization – several positions are opening up to lead new units that will pursue exciting growth opportunities for the organization. There are several candidates for these positions, and you are among those being considered for one of these positions.]

Such a change would represent a significant step [Loss: back / Gain: forward] for you in your career and [Loss: hurt / Gain: build] your status in the organization. In addition, this change in job role would likely result in [Loss: a reduction / Gain: an increase] in your total financial rewards. [Gain: You would not have to relocate to take on this new role, and the workload and travel requirements would be no worse than what they currently are.]
Appendix: Detailed Manupulations

[Loss – Limited Control: Given the current business climate and mix of available skills, you are fairly confident that – if this change were considered necessary – you would have little choice in the decision or in the design of your new job role. There would be limited room to maneuver.]

[Loss – Control: The person to whom you could potentially report is, however, known for being a hands-off manager, who would likely give you a great deal of freedom to shape the job role and work autonomously. The person has a well-deserved reputation for creating space for subordinates to operate independently, and with the combination of the two units, you would have considerable room to maneuver.]

[Gain – Limited Control: Given the organization’s ambitious growth plans and the mix of available skills, you are fairly certain that – if you were offered this position – you would have little choice in the decision. You would be asked to take on this role in the best interest of the organization, and it would be very hard to turn down the offer.]

[Gain – Control: Given that several new positions are opening up, you would likely have considerable freedom to choose among other comparable positions – or to stay in your current position – if you were made an offer and decided to turn it down.]

Your colleague concluded the conversation by emphasizing that no decisions have yet been made and that various organizational and staffing options are still being considered. [Limited Control: You are, however, unlikely to have much influence on the decision outcome. / Control: You might still be able to influence the decision outcome.]
Author Biography

Sameer B. Srivastava is an Assistant Professor at the Haas School of Business at University of California, Berkeley. His research examines how the social structure within organizations—particularly that manifested in workplace social networks—affects individuals and their careers. He received his Ph.D. in Sociology and Organizational Behavior from Harvard University.