

# Status Differences in the Cognitive Activation of Social Networks

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We develop a dynamic cognitive model of network activation and show that people at different status levels spontaneously activate, or call to mind, different subsections of their networks when faced with job threat. Using a multimethod approach (General Social Survey data and a laboratory experiment), we find that, under conditions of job threat, people with low status exhibit a winnowing response (i.e., activating smaller and tighter subsections of their networks), whereas people with high status exhibit a widening response (i.e., activating larger and less constrained subsections of their networks). We integrate traditional network theories with cognitive psychology, suggesting that cognitively activating social networks is a precondition to mobilizing them. One implication is that narrowing the network in response to threat might reduce low-status group members' access to new information, harming their chances of finding subsequent employment and exacerbating social inequality.

*Key words:* labor markets; laboratory research; experimental designs; social networks; organization and management theory; psychological processes; organizational behavior; status

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## Introduction

Marvin Powell was a General Motors (GM) autoworker from Detroit. A recent *New York Times* profile revealed that after losing his job, he immersed himself in his web of close relationships, deepened his connections with his friends (playing horseshoes with them) and parents (his father was also on GM's line), and strengthened his tie to his pastor. The author of the article wondered, "I was constantly torn between marveling at his faith, his stubborn belief that everything was going to work out, and the urge to tell him to look around, to read the paper on any given day, to see the train that's heading straight for him and so many others and try to make a viable plan for his future before it's too late" (Mahler 2009, p. MM30).

Consider a second casualty of the financial meltdown also recently profiled in the *New York Times*: Mark Gorham, a Harvard Business School graduate who was laid off from Hewlett-Packard (HP) as vice president. Being understated was his norm, but since he lost his job, he made three new contacts per day, starting with a colleague he had not spoken to in eight years. He forecasted that 60 new people would be thinking about him by the end of the month (Winerip 2009).

Although both men encountered similar situations of job loss, they responded by relying on very different substructures of their social networks. Whereas the GM line worker narrowly sought resources from his friends and family, the HP vice president expanded his circle

of contacts. These winnowing and widening strategies may well lead to different outcomes, with the vice president better positioned to gather information about a broader array of employment opportunities than is the line worker.

Marvin and Mark differ on many dimensions, but the most salient is their socioeconomic status. In this paper, we explore status as a key factor underlying people's tendencies to network broadly or narrowly when they are under siege. Our primary focus is on how people activate, or call to mind, network contacts. We thus differentiate activation—the mental activity of constructing a social network at a given point in time—from mobilization—the process of putting a network to use. Using data from the General Social Survey (GSS) in Study 1 and a laboratory experiment in Study 2, both investigations reveal that when people who perceive themselves to have low status encounter a job threat, they activate networks that are smaller and less diverse. We focus on people's perceptions of their status to tap into the cognitive experience of feeling oneself being situated in a status hierarchy. We verify that these perceptions are indeed strongly correlated with more objective measures such as family income (Study 2). By contrast, when people who perceive themselves to have high status face job threats, they go global, activating larger, nonredundant social networks.

One explanation for the difference in response is that high- and low-status people simply possess different kinds of networks, independent of threat. A more nuanced possibility is that cognitive activation processes that follow the onset of threat amplify, reinforce, and may even produce structural differences. Thus, rather than focusing on the network resources to which a person might have access, our focus is on how people perceive and recall portions of their social networks. The primary hypothesis is that job threat leads high-status people to cognitively activate broader networks than those activated by low-status people. We use the context of job market dislocations to explore how cognitive theories can inform the dynamic processes by which people mentally construct their social networks.

### Networks and Job Search

Social networks help explain people's outcomes in the labor market by determining how people seek help (e.g., Castilla 2005, Granovetter 1974, Lin and Dumin 1986). Network contacts offer two primary resources for job search (Yakubovich 2005): information, which provides job seekers with knowledge about where to find employment (Fernandez and Weinberg 1997, Granovetter 1974); and influence, whereby network contacts affect people's success in actually securing employment by swaying the hiring process (Marsden and Hurlbert 1988). Whereas information is typically associated with broader network range, influence typically requires trusting relationships.

Because people who vary in status, ethnicity, and gender have different resources available to them via their social networks, they may also differ in their prospects of finding and securing employment. For instance, the probability of hiring a black worker was 75% lower in firms that had fewer than 10% of employees who were black and that used employee referral programs (Mouw 2002). Moreover, just as joblessness among urban blacks can stem from their lack of social ties to the mainstream (Wacquant and Wilson 1989), gender-based segregation in the workplace persists because of gender-based homophily in referral networks (Fernandez and Sosa 2005). These structural arguments build largely on Wilson's (1987) "social isolation" thesis, whereby disadvantaged people experience lower social and economic outcomes because they rely on networks that are poor in social and economic resources.

Recent research suggests, however, that purely structural accounts, and the social isolation hypothesis in particular, may not offer a complete explanation. Consider Mouw's (2009) argument that the consistently low wages earned by Hispanic workers arise because Hispanic workers are simply more likely to use close friends and relatives to find work than are non-Hispanics, or Smith's (2005) analysis of similar processes among urban blacks. In light of arguments that the networks of lower socioeconomic groups are smaller and denser,

Smith's (2005) paper deserves special attention because it builds on evidence that the social networks of urban blacks are not, in fact, as dense and isolated as previously thought. She argues that the real difference in employment outcomes results from urban blacks' inability to mobilize networks on their behalf. Specifically, members of the black community who maintained links outside the community (and thus were best suited to provide new and different job information) were unwilling to do so because they feared soiling their reputations by referring unqualified job seekers. In this case, the information-related benefits of network range are not feasible without initial network cohesion (see Reagans and McEvily 2003, Reagans et al. 2004). Smith's account suggests that the information-rich brokers in the black community desert urban blacks, who must then rely exclusively on their strongest ties.

These arguments suggest that the networks that people access in theory may differ from the networks that they cognitively activate and eventually mobilize in reality. We offer a new cognitive explanation for this phenomenon. Controlling for the actual quantity and quality of people's networks, our key argument is that people activate different networks as a function of the cognitive accessibility of their contacts.

### Cognitive Activation of Social Networks

How people cognitively activate their social networks is an important and largely unexplored question in social network research. Before we consider our core dependent variable, network activation, in more detail, we differentiate it from two other network structures, the potential and mobilized network.

(1) *Potential network*: The full set of contacts people have at their disposal.

(2) *Activated network*: Nested within the potential network is the activated network, i.e., the subset of the potential network that actually comes to mind in a given situation. The concept of the activated network draws from past research contending that social networks are more than realized, objective social structures: they are also cognitive structures (see Carley 1986, Krackhardt 1987). People might fail to remember particular contacts, be unable to recognize their value, or mentally reject contacts because they feel apprehensive about calling on them.

(3) *Mobilized network*: This is the subset of the activated network that people actually solicit resources from when they engage in help-seeking behaviors (Nadler 1991). Whereas the activated network involves a private mental activity that logically precedes mobilization, mobilization is a social activity through which people call on contacts and seek resources from them.

In focusing on network activation, our key argument is that people's mental maps of who is relevant in

their social environment shifts as a function of the situation. Cognitive activation occurs when a concept is primed and becomes mentally available and accessible to perceivers (Bargh et al. 1996, Higgins and Kruglanski 1996). Reminding people of particular concepts affects whether they use that information and also shapes their behavior (Gentner et al. 2009). For instance, priming people with concepts below their conscious level of awareness (e.g., the word “old”) influences subsequent behavior (e.g., walking more slowly; see Bargh et al. 1996). The implication for network research is that situational priming can shape how network knowledge comes to mind.

The conception of networks as situationally activated also parallels dynamic constructivist arguments in cross-cultural psychology. Just as people hold cognitive representations of culture (Hong et al. 2000, Morris et al. 2001), people possess cognitive representations of their social networks (Janicik and Larrick 2005, Krackhardt 1987, Michaelson and Contractor 1992). And just as these cognitive representations of culture move through the mind, dynamically advancing to the forefront of consciousness or receding as situations shift, our key contention is that network knowledge does too. Certain situational triggers (e.g., job loss) may prompt people to activate different aspects of their networks. Individual social networks therefore are not only temporally dynamic over the long run (i.e., the composition of the potential network shifts gradually over time; see Bearman and Everett 1993, Roy 1983) but also situationally dynamic in the way the activated network is continually reconstructed. As such, we develop a dynamic view of social networks, demonstrating how they transform in size and shape as a function of their cognitive accessibility.

Importantly, this perspective does not reject a view of individual social networks as relatively stable patterns of ties that constrain behavior (Brass and Burkhardt 1993). Rather, within the confines of these relatively stable (*potential network*) patterns, people activate alternative network subsections in response to particular stimuli. Whereas some network relationships may be chronically activated, and thus less vulnerable to situational priming, other network relationships may be more dependent on situational cues. We demonstrate a cognitive model of network activation using job loss as our context. We consider activation to explain the well-established challenges that low-status people experience when they network for jobs. We define threat and then consider how it interacts with socioeconomic status to shape people’s activation of their social networks.

### Defining Threat and Its Consequences

People face a broad spectrum of different kinds of threats (e.g., threats to physical safety, economic threats such as loss of livelihood, or psychological threats to self-esteem;

see Menon et al. 2006, Menon and Thompson 2007, Nadler 1987). We focus on the job loss threat, which several recent polls identified as one of the key threats facing people. A poll conducted in 2009 indicated that 47% of those surveyed worried about losing a job (AP-GfK Poll, conducted February 12–17, 2009;  $n = 1,001$  randomly selected adults) (see GfK Roper Public Affairs and Media 2009). A second poll taken in 2010 showed that 57% of respondents were either “very concerned” or “somewhat concerned” about themselves or someone in their family becoming unemployed (CBS News/New York Times Poll, conducted February 5–10, 2010). Moreover, fear of being unemployed was not unique to a particular socioeconomic level: equal percentages of high- and low-income workers worried about losing their jobs. To operationalize job loss threat, our first study measures people’s concerns about job loss. The second manipulates job loss threat directly so as to address the causal relationship between threat and network activation among high- and low-status people.

Social psychologists find that people generally seek social support in times of threat. For instance, the fear-affiliation hypothesis suggests that people facing electrical shocks become more social (Schachter 1959), particularly when those others possess characteristics they deem to be useful for dealing with the stressful situation (Rofé 1984). Similarly, organizational sociologists argue that in times of organizational uncertainty, employees increase their level of social interaction (Van de Ven et al. 1976) to make sense of their environments and reduce uncertainty (Shah 2000).

Assuming that people under threat seek social support of one kind or another, a more nuanced, network-specific question relates to the number and type of people with whom threatened people seek affiliation. As the opening examples suggest, people might respond to job loss by winnowing their networks to a core group, by widening their networks through loose ties, or by doing both.

Much empirical research has found that people turn inward in times of threat, activating core subsections of their potential networks. The threat-rigidity effect (e.g., Gladstein and Riley 1985, Staw et al. 1981) offers one multilevel explanation: people experience emotional effects from threat (e.g., stress, anxiety, and arousal) that have both cognitive and behavioral implications. Cognitive implications include restrictions in information processing (Easterbrook 1959), such as relying on prior beliefs, excluding peripheral and novel information, and narrowing attention to dominant cues. Behavioral implications include inaction, increasing in-group cohesion, and decreasing intergroup affiliation. We argue that such responses to threat have analogous repercussions for people’s social networks. People facing threat tend to contract their surrounding networks, building veritable fortresses from which to marshal resources and emotional support. One prominent example is found among

minority coethnics who often turn inward when facing group threat, adopting prejudicial views toward outsiders (Dion 1979, Dixon 2006, McLaren 2003, Quillian 1995).

Although people often winnow their networks in times of threat, several lines of research suggest that expanding one's social network might be the optimal response (Ancona and Caldwell 1992, Burt 1992, Granovetter 1974). The social fortress of one's close, trusted friends and family is a comfortable refuge but also offers fewer pathways to escape the threat. Broad, nondense networks, by comparison, provide less in terms of sympathy but may allow people to emerge relatively unscathed from job loss by increasing access to employment-related information. However, there are important caveats to this argument. Larger, less dense networks, for instance, might not prove equally beneficial for all kinds of people (compare, for instance, Lin and Dumin 1986 with Marsden and Hurlbert 1988).

Given this lack of consensus, the aim of this paper is not to evaluate the advantages and disadvantages that accrue from specific network structures. Rather, our primary goal is to examine how people differentially activate their social networks under equivalent situational cues. In the absence of data regarding actual job market outcomes, we remain agnostic as to whether there is a singular normative response. We explore the potential consequences of network activation differences in the discussion.

### **How Social Status Affects Network Activation Under Threat**

To make sense of the diverse responses to threat, we study the characteristics of the people who experience threats and their social status in particular. We define social status as a person's position in a stratified social hierarchy. This differs notably (though perhaps not substantively) from alternative (often network-analytic) conceptions of status as the summation of respect or social deference (e.g., Bothner et al. 2010, Podolny and Phillips 1996). Relative to the latter, more emergent image of social status, the one we use amounts to the more classical macrosociological concept of socioeconomic status (e.g., Duncan 1984). We operationalize status as subjective, that is, as an individual's personal assessment of his or her place in the macrostructure of society.

We argue that high- and low-status people experience different psychological constraints as a result of power or powerlessness (Galinsky et al. 2003, Keltner et al. 2003). We thus treat status and the feeling of power as strongly linked. Power is part of the daily experience of high-status people, as powerlessness is for low-status people (Kraus et al. 2009). People primed with the concept of power are more likely than those not primed with power to activate an assertive, socially uninhibited state that encourages them to exert their agency upon their surroundings (Galinsky et al. 2003). Stephens and colleagues' (2009) research on agency among lower-class

populations parallels this work on power and action. In contrast to the typical assumptions associated with independent agency (emphasizing personal choice and control), lower-class people emphasize their interdependence with others in the face of adversity (Stephens et al. 2009).

Why might high- and low-status people vary in their network patterns under threat? Several lines of research suggest that power affects how people respond to threats and challenges. For example, powerful people are especially optimistic in the face of risk (Anderson and Galinsky 2006). Because they exhibit greater confidence in their attitudes and behaviors (Briñol et al. 2007, Keltner et al. 2003), powerful people are more likely to validate their preexisting self-views and are less likely to internalize new information from the environment (Briñol et al. 2007). Stated another way, powerful people reject the threat and instead defend the image of themselves as competent, agentic, and confident. One way high-power people do so is by taking social risks (Anderson and Galinsky 2006), e.g., assertively approaching other people with regard to their usefulness or utility (Gruenfeld et al. 2008). We predict that these tendencies extend to a network pattern whereby high-status people activate larger networks replete with diverse ties. In the process of defending their identities, high-status people become more outwardly focused, activate broader networks, and fulfill the prophecy that they are indeed high status, well connected, and competent.

By contrast, Briñol et al. (2007) suggest that powerless people exhibit the opposite patterns: more self-doubt and hence more susceptibility to internalizing threatening information from the environment. The act of help seeking fosters feelings of incompetence, dependence, and powerlessness (Flynn et al. 2006, Nadler 1987), which are especially profound for people who already feel insecurities because of their low status. By comparison, high-status people are more affirmed and secure following the onset of threat and are thus more confident in approaching others and more likely to seek help (see Menon et al. 2006).

Whereas much of the existing help-seeking research considers how threats affect a person's willingness to seek support from a specific individual (e.g., Menon et al. 2006), the present paper assesses how people view their embeddedness within broader network structures of potential helpers. Specifically, we predict that low-status people may feel especially intimidated to reach beyond the most dense and secure subsections of their potential networks. When low-status people become more inwardly focused, they protect themselves from the uncertainties implicit in networking among less familiar contacts by activating smaller, denser networks. We synthesize these past studies and suggest that threat instigates a broaden-and-expand mind-set in high-power people and, conversely, an accept-and-withdraw response in low-power people.<sup>1</sup>

These psychological responses are consistent with empirical findings that high-status people feel less constrained by their in-groups (Blau 1964) and therefore may feel freer to reach beyond their local networks. Consistent with the idea that high-status people exhibit agency when they use their networks, Lareau (2003) argues that middle-status parents are more likely than are working-class parents to prepare their children to engage with others in their networks in a way that furthers their goals. Similarly, when compared with lower-status parents, middle-status parents themselves tend to mobilize support from a wider, more diverse constituency when facing problematic school situations (Horvat et al. 2003). Our research offers a cognitive mechanism for these findings: holding constant resource differences, high- and low-status people shift in the networks they activate as situations vary. We thus assume that the effect of job threat on network activation persists as long as the threat is cognitively salient and accessible.

In sum, whereas high- and low-status people may have different potential social networks, our focus is on how job threat affects how people cognitively activate network contacts. By first controlling for threat (Study 1) and then manipulating it (Study 2), we expect to see a differential response in people's perception of their social networks. The key hypothesis is that low-status people turn inward (i.e., activate smaller and denser networks) whereas high-status people turn outward (i.e., call to mind larger, more diverse contacts) when facing job threat. Given the disagreements about the relative advantages and disadvantages of broad versus narrow networks, we are in no way suggesting that low- or high-status people are more or less skilled as decision makers. We simply expect that the two groups respond differently in the face of an equivalent threat.

### Overview of Studies

In two studies, we examine how people who differ in their self-perceptions of socioeconomic status activate their networks in response to job threat. We predict that high-status people will activate larger, less dense networks when they face job threats and that low-status people will do the opposite.

In the first study, we analyzed data from the GSS to establish this association in a heterogeneous national sample. Because of the cross-sectional nature of the GSS data, we cannot determine causal direction in these analyses. To address this issue, and to confirm that people indeed activate different networks based on threat situations (as opposed to feeling threatened because of the network structure in which they are embedded), we conducted a laboratory experiment in which we randomly assigned participants to conditions that simulated job security versus threat. Replicating the GSS result, we show that threat and status interact to cause differences in network activation.

### Study 1: Status, Job Threat, and Networks in the General Social Survey

We first examined the relationship between status, job threat, and an individual's self-reported social network using a well-known data set, the GSS. Whereas most social network studies sample people who are part of a related population (e.g., part of the same organization, ethnic group, or social club), the GSS is a national probability sample, allowing for a test of the hypotheses among a heterogeneous population with meaningful status differences. In addition, GSS participants indicated their gender, age, social and family characteristics, and professional status, which are important controls because social network composition varies systematically across these dimensions (e.g., Marsden 1987, Moore 1990).

We were agnostic about the relationship between status and network structure. Whereas several studies suggest a positive relationship between status and both network size and reach, such studies vary broadly in the conceptualization of status itself (e.g., objective, subjective, sociometric, etc.). Our crucial prediction was an interaction effect such that high- and low-status people differ in their response to job threat. Specifically, we hypothesized that when facing job threat, low-status respondents would be more likely to report smaller and more closed networks compared with high-status respondents.

### Method

*Participants.* The 1985 GSS is a national probability sample of 1,395 American adults that gathers data on participants' family background, attitudes, and past and present social and professional statuses. We did not use the more recent wave (2004) of GSS social network data because of the known data biases and errors that are discussed by Fischer (2009).<sup>2</sup>

We tested the hypotheses on 806 participants. The reduced sample size is due to the elimination of participants who were not actively employed ( $n = 500$ ) and participants missing status, network, or job threat data ( $n = 79$ ). The mean age of the reduced sample is 39, with a range of 18 to 85. Females make up 46% ( $n = 373$ ) of the sample, as opposed to 55% in the full data set, a reduction resulting from sampling based on work status. Nonwhite respondents account for 11% ( $n = 90$ ) of the reduced sample, which is identical to the distribution of the entire data set. Annual income ranges from effectively \$0 to a maximum of \$96,089, with a mean annual income of approximately \$23,000.

### Procedure

*Independent Variables.* To operationalize subjective status, we used the following item: "If you were asked to

use one of four names for your social class, which would you say you belong in: the lower class, the working class, the middle class, or the upper class?" (For other uses of this variable, see Davis and Robinson 1988.) Only 5% of all respondents self-identified as being either in the "lower class" (2.36%) or "upper class" (3.23%). As a result, we dichotomized the variable into two categories, low (52.67%) and high (47.33%), by combining the two low categories and the two high categories. Results do not substantively differ when the data points from these sparsely populated categories are instead removed from the analysis.

We measured job threat with this question: "Thinking about the next 12 months, how likely do you think it is that you will lose your job or be laid off?" (For other uses of this variable, see Aaronson and Sullivan 1998, Schmidt 1999.) Responses ranged from "Not at all likely" to "Very likely." As we did with status, we dichotomized the variable by coding anything other than the response "Not at all likely" to indicate the presence of some meaningful threat. One-third of the respondents fell into the threat category. The remaining two-thirds reported feeling no threat.

*Dependent Variables.* To collect social network data, all GSS participants were asked the following standard name generator (Burt 1984): "From time to time, most people discuss important matters with other people. Looking back over the last six months—who are the people with whom you discussed matters important to you?" Interviewers probed for additional names when respondents named fewer than five people. Additionally, respondents described the presence or lack of relationship between each of the contacts named.

These questions formed the two key dependent variables. First, we assessed the number of contacts named. Respondents named between 1 and 5 contacts, with a

mean number of 3.5. We assume that the resulting networks represent the subset of people's social contacts that first came to mind (Moore 1990).

Second, we used data on respondents' social ties and the relationships among those ties to compute Burt's measure of network constraint (1992).<sup>3</sup> Constraint has theoretical lower and upper bounds of 0 and 1, respectively, with high values indicating more constraint—as when all of the respondent's network partners know one another in their social network. Constraint is typically used to measure potential access to unique sources of knowledge and information, e.g., spanning "structural holes" (Burt 1992). The measure is thus well suited for a study of peoples' responses under the threat of job loss when access to knowledge about a new potential job may be most important. Low-constraint respondents activate open, relatively diffuse sections of their networks, and high-constraint respondents activate closed, redundant sections of their networks. Network constraint ranges from 0.2 to 1.0 and has a mean of 0.76 and standard deviation of 0.21.

Finally, we used several additional items as control variables. As network composition may differ by demographic characteristics, we included controls for age, gender (1 = *female*, 0 = *male*), marital status (1 = *married*, 0 = *not married*), and level of education, measured as the number of school years completed by the respondent. A person's social network may include coworkers and therefore be affected by his or her type of employment. To account for this, we included three additional controls: a dummy variable indicating self-employment (1 = *self-employed*, 0 = *not self-employed*), a measure of occupational prestige (Hodge et al. 1964), and respondents' reported annual income. Table 1 reports correlations and descriptive statistics for all variables in the analysis.

**Table 1 Correlations and Descriptive Statistics for All Variables Used in the Analysis**

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
[1] <i>Network size</i>											
[2] <i>Network constraint</i>	-0.732										
[3] <i>Threat of job loss</i>	-0.017	0.020									
[4] <i>Subjective class identification, high</i>	0.171	-0.134	-0.178								
[5] <i>Age</i>	-0.056	0.044	-0.059	0.155							
[6] <i>Female</i>	0.027	0.003	0.002	-0.036	-0.117						
[7] <i>Married</i>	0.051	-0.133	0.089	-0.036	-0.277	0.036					
[8] <i>Self-employed</i>	0.021	-0.033	-0.141	0.111	0.068	-0.063	-0.075				
[9] <i>ln(Income)</i>	0.056	-0.082	-0.163	0.276	0.257	-0.374	-0.157	0.042			
[10] <i>Occupational prestige</i>	0.177	-0.172	-0.145	0.358	0.093	-0.018	-0.064	0.073	0.420		
[11] <i>Education</i>	0.280	-0.256	-0.092	0.362	-0.106	-0.029	0.077	0.081	0.300	0.590	
Mean	3.426	0.762	0.337	0.474	38.963	0.462	2.195	0.156	9.604	42.873	13.365
SD	1.516	0.211	0.473	0.500	12.630	0.499	1.618	0.363	1.037	14.777	2.933
Min	1	0.200	0	0	18	0	1	0	6.269	12	1
Max	5	1	1	1	85	1	5	1	11.473	82	20

## Results

We performed a series of ordinary least squares (OLS) and ordered logistic regressions—network size was treated as a discrete and ordered categorical response in the latter models—to assess the direct and interactive effects of perceived status and job threat on social network composition. The OLS and logistic regression specifications produced substantively identical outcomes. For matters of interpretation, the results of the OLS models are shown in Tables 2 and 3. In both tables, Model 1 includes the main effects of the primary independent variables only. Model 2 adds the interaction term. Models 3 and 4 include controls.

Table 2 reports results from the analysis using degree count, or the number of contacts named by the respondent, as the dependent variable. The coefficient of Model 2’s interaction term indicates that respondents who perceived themselves to be high status and faced job threat reported networks that were about a half a person larger compared with those of other high-status respondents who did not face threat (high threat:  $M = 3.95$ ,  $SD = 0.147$ ; low threat:  $M = 3.59$ ,  $SD = 0.08$ ;  $p < 0.05$ ). Given that respondents’ networks were limited to a maximum size of five people, this difference

represents a significant change in network size. By contrast, those who perceived themselves to be low status and faced job threat reported networks that were smaller by an order of about one-sixth of a person (high threat:  $M = 3.08$ ,  $SD = 0.103$ ; low threat:  $M = 3.22$ ,  $SD = 0.09$ ;  $p = 0.32$ ). Models 3 and 4 include control variables as a check on the robustness of Model 2’s interaction. Demographic and self-employment characteristics are entered in Model 3. All controls are included in Model 4. Importantly, the interaction between status and job loss threat remains significant ( $p < 0.01$ ) in the final two models.

The models in Table 3 replicate those in the previous table but use network constraint as the dependent variable. Once again, Model 1 includes only the main effects of the two primary independent variables. Model 2 adds the interaction term. Results are consistent with those for the first set of models. The interaction between job threat and status is negative and significant, indicating that the association between job threat and network constraint varies with status. When participants perceived themselves to be low status, job threat is positively associated with network constraint. When they perceive themselves to be high status, the association is negative. This

**Table 2 OLS Models Predicting the Number of Network Alters Named by Respondents**

	1	2	3	4
<i>Threat of job loss</i>	0.045 (0.113)	−0.162 (0.147)	−0.193 (0.147)	−0.151 (0.145)
<i>Subjective class identification, high</i>	0.527 (0.107)**	0.366 (0.129)**	0.379 (0.131)**	0.138 (0.135)
<i>Job loss * High class</i>		0.507 (0.230)*	0.536 (0.229)*	0.485 (0.224)*
<i>Age</i>			0.040 (0.026)	0.017 (0.027)
<i>Age squared</i>			−0.001 (0.000)	−0.000 (0.000)
<i>Female</i>			0.066 (0.106)	0.058 (0.114)
<i>Married</i>			0.046 (0.035)	0.025 (0.034)
<i>Self-employed</i>			0.052 (0.147)	0.001 (0.144)
<i>ln(Income)</i>				−0.050 (0.064)
<i>Occupational prestige</i>				0.002 (0.005)
<i>Education</i>				0.121 (0.023)**
<i>Constant</i>	3.160 (0.087)**	3.247 (0.095)**	2.502 (0.556)**	1.786 (0.706)*
Observations	806	806	806	806
R-squared	0.03	0.04	0.05	0.09

Note. Standard errors are in parentheses.  
 \*Significant at 5%; \*\*significant at 1%.

**Table 3 OLS Models Predicting Respondents’ Levels of Network Constraint**

	1	2	3	4
<i>Threat of job loss</i>	−0.002 (0.016)	0.031 (0.021)	0.038 (0.020)	0.031 (0.020)
<i>Subjective class identification, high</i>	−0.057 (0.015)**	−0.032 (0.018)	−0.029 (0.018)	0.003 (0.019)
<i>Job loss * High class</i>		−0.080 (0.032)*	−0.086 (0.032)**	−0.080 (0.031)*
<i>Age</i>			−0.010 (0.004)**	−0.007 (0.004)
<i>Age squared</i>			0.000 (0.000)**	0.000 (0.000)
<i>Female</i>			0.004 (0.015)	0.001 (0.016)
<i>Married</i>			−0.020 (0.005)**	−0.018 (0.005)**
<i>Self-employed</i>			−0.017 (0.020)	−0.012 (0.020)
<i>ln(Income)</i>				−0.000 (0.009)
<i>Occupational prestige</i>				−0.001 (0.001)
<i>Education</i>				−0.014 (0.003)**
<i>Constant</i>	0.790 (0.012)**	0.776 (0.013)**	1.007 (0.077)**	1.133 (0.098)**
Observations	806	806	806	806
R-squared	0.02	0.03	0.06	0.09

Note. Standard errors are in parentheses.  
 \*Significant at 5%; \*\*significant at 1%.

finding is not affected by the inclusion of controls in Models 3 and 4.

In an additional set of analyses (not shown, but available from the authors upon request), we ran identical models that used an alternative measure of status. Instead of being related to class identification, the measure captured a respondent's assessment of his or her family's financial standing relative to others ("Compared with American families in general, would you say your family income is far below average, below average, average, above average, or far above average?") Despite there being only a modest correlation ( $r = 0.31$ ) between this measure of status and the prior one based on class, we replicated the results just discussed.

### Discussion

Study 1 revealed that status and job threat interacted such that high-status people experiencing job threat reported larger and less constrained networks than did low-status people facing the same threat. Importantly, it is not simply that high-status people reported different kinds of networks or that people facing job threat did so. The main effects were qualified by an interaction between status and threat, which is consistent with our thesis that threat amplifies high-status people's motivation to defend themselves by widening their networks but inhibits low-status people's willingness to reach outside the comforts provided by their closest contacts.

Several alternative explanations may also account for the observed results. The most problematic one involves reverse causality. Namely, having small and/or closed networks may lead people to believe that their employment is uncertain. Because the GSS is a cross-sectional data set, we cannot establish causality in this study. To rule out this possible alternative, the next study complements the cross-sectional survey with a controlled laboratory experiment that randomly manipulates threat among a sample of participants.

A second limitation of the GSS data is that we know little about people's beliefs about the functional properties of their networks. That is, one explanation might be that when facing threat, people in the two status groups framed their goals differently. For example, high-status people might strategically seek broader ties to gain more information, whereas low-status people seek strong ties to maximize their emotional support. We designed the next study to directly assess the kinds of support (e.g., emotional versus task-related) that a person expects from his or her network contacts.

A third concern is that people who face threat from contrasting vantage points in the social hierarchy experience it through distinct psychological processes. For instance, if low-status people attach more stigma to job loss, they might fear social rejection and retreat inward into a smaller circle of trusted friends. By contrast, losing one's job may mean little to some kinds

of high-status professionals—particularly those in areas or industries where job turnover is commonplace (e.g., Saxenian 1994)—or to network brokers (Burt 1992) who, by definition, participate in multiple social worlds and may be less affected when a single world is threatened. If high-status people experience lower threat about job loss than low-status people, then this could help account for the effect. Study 2 thus tests whether high- and low-status people differ in the sheer level of threat they experience.

### Study 2: Manipulating Job Threat

To test the causal relationships between threat, status, and network activation, we first assessed peoples' perceptions of their family's social status and then experimentally manipulated job threat. We randomly assigned participants to one of two conditions: *job security* ("Think about the feelings you might have if you got a job") and *job loss threat* ("Think about the feelings you might have if you lost your job"). Finally, we asked participants to report on their social networks. Random assignment with respect to the threat condition allows us to address reverse causality, the primary limitation in the GSS analysis. If job threat plays a causal role, then randomly assigning people to high or low job threat should lead to differences in networks that people from each status group activate.

To address the other concerns arising from Study 1, we also explored several potential reasons why groups might differ in the network structures they called to mind (e.g., that they used their networks for advice versus support or that they experienced different levels of threat).

### Method

*Participants and Design.* One hundred and eight students from a Midwestern university (58.4% male) participated in the survey. We paid participants \$10 to complete this survey along with a packet of unrelated surveys. The cover story of the experiment was that it assessed participants' "beliefs and impressions about various personal and social issues." The experiment had a job threat (high or low) between-subjects design.

### Procedures and Materials

All participants first received the survey, which asked them to think about their social status. Given the complications of assessing social status perceptions (e.g., participants tend to overwhelmingly evaluate themselves as middle class; they might be reluctant to answer direct questions about income; and in the case of undergraduates, they might not be aware of their family income), we developed a method to assess perceived social status. Drawing from past research associating status with height (Giessner and Schubert 2007), we assessed participants' visual representations of their position in the

social hierarchy (see Adler et al. 2000 for a similar operationalization of status through height on a figure). Participants were shown a pyramid and instructed, “Please take a look at the pyramid, which represents the American social hierarchy. Please draw a horizontal line to indicate your family’s position based on their socioeconomic status (low socioeconomic status = pyramid’s base; high socioeconomic status = apex of the pyramid).” An independent coder (blind to both the research hypotheses and the participants’ condition) measured (in millimeters) the distance between the base of the pyramid and the line participants drew. The range of the resulting measurements was 1 to 42.

To explore the validity of participants’ visual representation of their status, we correlated the measurement in millimeters ( $M = 21.44$ ,  $SD = 9.94$ ) with self-reported family income,  $r(71) = 0.65$ ,  $p = 0.00$ . Because of missing data in the income item (31% of participants provided no answer to the income question, whereas only 2% left the pyramid item blank), we used the visual representation of status. We also tested the discriminant validity of this measure by assessing correlations with other well-established measures in psychology. Status proved to be uncorrelated with participants’ political beliefs (e.g., “Which response best describes your political beliefs?”: very liberal, liberal, slightly liberal, moderate/middle-of-the-road, slightly conservative, conservative, very conservative, don’t know/not political) as well as the personality dimensions (honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience).

We manipulated the presence or absence of threat by asking participants to consider the prospect of getting or losing the perfect job postgraduation. Specifically, participants were randomly assigned to read and respond to one of the two following conditions:

Imagine that, upon graduation, you receive your perfect job. Suppose that one year later, your company informs you that they are downsizing and you will lose your job. Explain as clearly as you can how you think you would feel upon hearing the news that you will lose your job. [High threat]

Imagine that, upon graduation, you receive your perfect job. Imagine for a moment what this might feel like and write a few sentences below. [Low threat]

### Manipulation Check

Following their written description, participants reported the degree to which they felt threatened. They answered the Turner et al. (1992) five-item scale and rated on a seven-point scale the degree to which they felt *comfortable* (1) versus *uncomfortable* (7), *calm* (1) versus *shaky* (7), *secure* (1) versus *tense* (7), *confident* (1) versus *panicky* (7), and *relaxed* (1) versus *frightened* (7) at that particular moment ( $\alpha = 0.96$ ).

Next, we measured the key contacts participants activated in their social networks. To best replicate the GSS

data, we used a nearly identical name generator where participants responded to the question: “Most people discuss important matters, such as the one you just described, with other people. Who are the people with whom you discuss matters important to you? List up to ten names in the spaces below. Just use initials.” Spaces were marked on the survey page for up to 10 contacts.

We expanded the name generator because one alternative explanation for our findings is that high-status people might have wider, less dense potential networks in general and the GSS five-person name generator does not capture them. We doubled the size of the name generator and followed it with more-detailed questions about the network contacts named to more accurately gauge participants’ potential network.

Next, we presented each participant with a matrix in which to indicate the relationship status among the contacts that were named. Instructions were as follows: “Now, write the names of the same people you mentioned above in both the columns and the rows. The next task is to describe the strength of relations between the people you named as contacts. You do this by marking cells in the matrix below. Begin with the first person listed. Relations with the first person are listed in the first row.” Participants marked cells of the matrix with an *N* when the contact in the row and the contact in the column had no relationship, an *A* when the same contacts had an acquaintance relationship, and a *C* when the participant perceived the contacts to have a close relationship.

From the resulting matrix representation of each participant’s social network, we again computed two measures of network composition (Freeman 1979, Wasserman and Faust 1994), network size (the number of contacts named) and network constraint. Consistent with Study 1, we expected to find an interactive effect of the threat manipulation and social status on the size and composition of the networks that participants reported. Specifically, we anticipated that high-status participants in the threat condition would report larger and less constrained networks than would comparable status participants without the threat. By contrast, we expected that low-status participants in the threat condition would report smaller, more constrained social networks than would low-status participants without the threat. Finding this pattern in an experiment in which we randomly assigned participants into either the threat or no threat condition would rule out the possibility of reverse causality.

Finally, we tested whether people varied in their perception of the threat (the manipulation check detailed below) and the (intended) function of the networks they reported. It is plausible that differences in network activation following certain situational primes reflect

differences in the goals people attribute to their networks. Two such goals are emotional support and professional advice. We measured the intended function of the reported network with the following questions:

“Is this contact someone you would be willing to go to for emotional support?” [1 = extremely unwilling, 5 = extremely willing]

“Is this contact someone you would be willing to go to for advice, career, or professional support?” [1 = extremely unwilling, 5 = extremely willing]

Using these data, we computed two weighted network density scores. The first, emotional density, was computed as the ratio of the number of contacts to whom the respondent would be willing or extremely willing to go to for emotional support to the total number of contacts named. The second, advice density, was computed in the same way using participants’ responses to the advice, career, or professional support question. Finally, we paid and debriefed the participants; none of them guessed the research hypotheses.

## Results

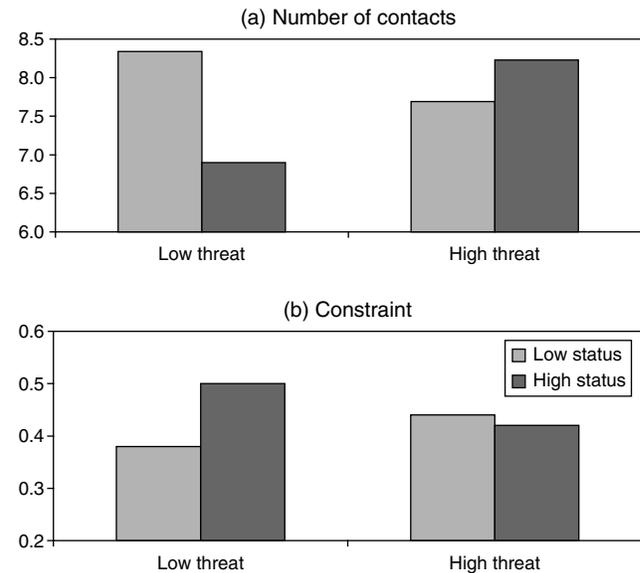
For the threat manipulation check, we performed an analysis of variance (ANOVA) with threat as the manipulated factor and with status and the interaction between status and threat as the other independent variables. Perceived threat was the dependent variable. As expected, participants in the high job threat condition reported feeling more threat than did those in the low job threat condition (high threat:  $M = 5.33$ ,  $SD = 1.33$ ; low threat:  $M = 1.93$ ,  $SD = 0.88$ ,  $F(1, 102) = 44.29$ ,  $p < 0.001$ ,  $h_p^2 = 0.30$ ). Status was nonsignificant ( $F(1, 102) = 0.059$ ,  $p = 0.81$ ,  $h_p^2 = 0.001$ ), as was the interaction between status and threat ( $F(1, 102) = 0.60$ ,  $p = 0.60$ ,  $h_p^2 = 0.003$ ).

Using the same ANOVA model as above, we next analyzed our two primary dependent variables, the number of contacts named by the participant out of a possible 10 ( $M = 7.83$ ,  $SD = 2.53$ ) and network constraint ( $M = 0.430$ ,  $SD = 0.167$ ).

With respect to number of contacts, the main effect of status was nonsignificant ( $F(1, 102) = 1.76$ ,  $p = 0.19$ ,  $h_p^2 = 0.017$ ), as was job threat ( $F(1, 102) = 3.34$ ,  $p = 0.07$ ,  $h_p^2 = 0.032$ ). The interaction between status and threat, however, was significant in the anticipated direction ( $F(1, 102) = 5.106$ ,  $p = 0.02$ ,  $h_p^2 = 0.048$ ). Results are depicted graphically in Figure 1(a). Bar heights indicate the mean number of contacts named by participants in each status group by threat condition.

With respect to network constraint, the main effect of job threat was significant ( $F(1, 102) = 4.27$ ,  $p = 0.04$ ,  $h_p^2 = 0.04$ ), as was status ( $F(1, 102) = 3.05$ ,  $p = 0.08$ ,  $h_p^2 = 0.049$ ). Like network size, the predicted interaction also emerged with constraint ( $F(1, 102) = 5.28$ ,  $p = 0.024$ ,  $h_p^2 = 0.049$ ) (see Figure 1(b)).<sup>5</sup>

**Figure 1 Network Size and Constraint by Status-Threat Condition**



We did not find an interaction with respect to advice seeking ( $F(1, 102) = 0.37$ ,  $p = 0.54$ ,  $h_p^2 = 0.004$ ) or a main effect of status ( $F(1, 102) = 0.31$ ,  $p = 0.58$ ,  $h_p^2 = 0.003$ ) or job threat ( $F(1, 102) = 0.29$ ,  $p = 0.59$ ,  $h_p^2 = 0.003$ ). Finally, we did not find interaction with respect to emotional support ( $F(1, 102) = 0.51$ ,  $p = 0.48$ ,  $h_p^2 = 0.005$ ) or a main effect of status ( $F(1, 102) = 1.31$ ,  $p = 0.25$ ,  $h_p^2 = 0.013$ ) or job threat ( $F(1, 102) = 0.37$ ,  $p = 0.55$ ,  $h_p^2 = 0.004$ ).

## Discussion

Replicating Study 1, Study 2 shows that people who identified themselves as lower status activate smaller networks when confronted with job loss threat, whereas high-status participants under threat activate larger, more expansive networks by increasing network size and reducing network redundancy. These effects emerged across two dependent variables that captured participants’ social network composition. The experimental design rules out reverse causality.

It is important to rule out other alternative explanations as well. First, it could be argued that high- and low-status people experience different levels of threat when facing the prospect of job loss. We ruled out this concern through the threat manipulation check. High- and low-status participants did not differ in self-reported reactions to threat. Consistent with Newman (2000), who argues that the poor have goals in terms of finding work that they share with those of higher socioeconomic status, our data indicate that people experience similar levels of threat in response to the prospect of job loss regardless of their status.

Another alternative explanation relates to the type of support that people seek when facing job loss. Perhaps

some people may have opted to build a network rich in social and emotional support, but others may have sought advice. Our results, however, rule out this differential support hypothesis: we did not find differences in tendencies to seek advice (advice density) and social support (emotional density) across threat conditions or status groups. These non-findings also help dismiss concerns that the groups interpreted the network questions differently, with high-status people focusing on getting a new job and low-status people seeking to emotionally cope with job loss. The result suggests that participants had the same combination of socioemotional and task-related resource needs in mind when they activated their networks, even though they activated different structures to achieve them.

Two potential limitations of Study 2 merit additional attention. First, like Study 1, Study 2 focused on perceptions of social status, and further research might consider objective indicators of socioeconomic status as well. Second, whereas Study 1 had the advantage of using a diffuse sample set, Study 2's undergraduate sample limits its generalizability. Although the consistent pattern across both studies—which represent different samples and research methodologies—suggests a robust effect, some might be concerned that the experimental sample contains insufficient variation in status. The response distribution in the measured status variable allays these concerns. In addition, undergraduates did not have direct experience with job loss. Although we believe that the job loss manipulation worked as well as it did because the prospect of future unemployment was real to undergraduates in the current economic climate, future studies should also measure whether participants had indirect experiences with job loss (e.g., whether their friends or family members have lost jobs).

## General Discussion

In two studies employing different methods, we investigated two key questions: How do people of varying status experience job threat, and how do they cognitively activate their social networks in response? Both studies offer convergent evidence that low-status people are more likely than are high-status people to activate smaller, more constrained networks in response to the threat of job loss. Importantly, we compared high- and low-status groups across high- and low-threat conditions and find a consistent interaction that supports our initial hypothesis. These studies explore how anxiety arising from job threat translates into unique social network responses as a function of social position.

The findings do not represent a main effect of status. It is not simply the case that high- and low-status people have different networks; rather, threat leads them to differentially activate their social networks. We develop a dynamic constructivist model of network activation,

whereby people spontaneously activate different aspects of their networks across different situations. Our thesis is that threat amplifies the tendencies for high-status people to assert their agency by networking broadly and for low-status people to feel inhibited about approaching others. Both these patterns reflect people's attempts to defend their identities and reveal how social networks serve fundamental identity needs (White 1992).

## Theoretical Implications: Why Cognitive Mechanisms Matter

Networks are commonly conceptualized as relatively stable parameters much like professional status or education. A person carries with him or her a kind of network (e.g., large or small, constrained or open) that only gradually evolves and changes as a person moves, meets new acquaintances, and encounters major events in his or her life. However, we argue that this conception reflects only one aspect of our networks—the *potential* network. To address this, we develop a nested conception of social networks that takes cognitive models seriously and suggests that networks are constructed as much in our minds as they exist in reality. By considering network activation, we show that simply thinking about stressors such as job loss can cause people to activate different subsections of their networks. This cognitive process elucidates the dynamic ways that people's representations of their networks can shift. Specifically, the immediate situational context may determine which aspects of one's network are salient and accessible (Higgins 1996). These cognitive factors link network structures and outcomes through the mobilized network. That is, the way we activate and represent our networks shapes how we ultimately call them to duty.

Cognitive accounts matter because they can explain why people's responses vary cross-situationally (e.g., under threat). Structural explanations cannot tackle this question fully because they are better suited to explain how cross-group variation (in relatively stable sets of social structures) generates different group outcomes. A cognitive explanation, on the other hand, provides a ready explanation that is appropriate for explaining within-status-group and even within-person variation. People's perceptions of their networks shift cross-situationally as people dynamically reconstruct subsections of their network, revealing different microstructures in different situations. In conceptualizing social networks as both mental structures and social structures, we do not aim to replace structural explanations but to complement them with a cognitive mechanism that can explain situational variation.

Specifically, consider how activation complements other explanations. The structural explanation that high-status people have more expansive potential networks than low-status people cannot fully account for the phenomenon. The variation between high- and low-status

people's networks emerged most prominently under threat. Furthermore, this was not due to the standard network name generator's (Burt 1984) failure to sample the full richness and depth of the high-status participants' networks. We doubled the size of the name generator used in Study 1 (the GSS data) from 5 people to 10 in Study 2 and replicated the first set of results.

In addition, consider even more nuanced explanations. First, we described research suggesting that high- and low-status people might have been socialized to think about and use their networks in very different ways (Lareau 2003). Likewise, people may have different beliefs about what their networks can provide and the costs of mobilizing them. For instance, low-status people might try to conserve resources when facing threat because they believe that investing in new or more diverse relationships is costly and potentially risky.<sup>5</sup> If low-status people's network behavior is subject to a budget constraint when they face threats, they might avoid investing their already limited financial and social resources into peripheral network members and instead choose to reinforce core relationships. Thus, people may hold different beliefs about their networks for various reasons, including socialization and attempts to conserve resources. Our key point is that all of these beliefs reflect cognitive representations of networks. As such, they are subject to the dynamic processes of activation we have described here, becoming more or less salient as situations change.

In sum, when people activate their networks in response to job threats, they mentally simulate the resources they perceive themselves to have. These mental representations are the necessary first step before people can mobilize their networks. They reveal not only how people have internalized the global structures around them but also how they will deploy local configurations of that structure in response to situational changes.

### Methodological Implications

Beyond the theoretical implications, our findings also have methodological implications for how social network data are collected. Researchers have frequently observed inaccuracies in measuring networks (e.g., Bernard and Killworth 1977), noting problems of reliability whereby people report different networks in test-retest comparisons (see Marsden 1990 for a review). This has been attributed to informant inaccuracy, in which people have lapses of memory and make errors in survey responses (Wasserman and Faust 1994).

The perspective of this paper offers another possibility: these "errors" emerge because networks are in fact dynamic. This may result for at least two reasons. On the one hand, some social phenomena or social networks may not be in stasis for anything but the shortest unit of time (Wasserman and Faust 1994). On the other hand, it

follows from the results of this study that people's perceptions of their networks might vary cross-situationally. People might construct their networks in a dynamic way, shifting elements of their cognitive social structure as they experience different psychological states. Indeed, it is possible that researchers might unknowingly prime respondents in particular ways that could cause variations in their responses. If subtle priming can cause people to generate different network structures (Study 2), our research represents a caution for network surveys (Marsden 1990), in which respondents could be influenced by a host of situational factors (e.g., sequencing of questions, structure and location of interview, etc.).

In addition to offering psychological insights to network theories, the sociological foundations of this research also inform social psychology. Although psychological research has studied attitudes, beliefs, perceptions, and behaviors, little research has used network variables (see Janacik and Larrick 2005 for an exception). Socioeconomic status has also been understudied in the lab until recently (see Kraus et al. 2009). To facilitate further study of this variable, we have shown how experimental methods that use subjective measures of socioeconomic status in the laboratory can complement data from large-scale national surveys.

### Managerial Implications

Given the lack of agreement in the literature, we have not yet explicitly considered the advantages and disadvantages associated with these narrowing and broadening strategies. At this point, we consider implications from both perspectives. On one hand, researchers have typically described broad networks as a panacea for cost-effective information collection (Burt 1992, Granovetter 1974). Expansive networks seem especially crucial when people need leads on new jobs and protection from the uncertainties surrounding the threat of job loss. Yet our research suggests that people who perceive themselves to be low in status activate just the opposite kinds of networks. They might therefore face a frustrating cycle: they feel threatened, reach deeper inside their local social network, limit their access to information on new opportunities, and feel further threatened as a result.

These microlevel cognitive processes thus have macrolevel implications consistent with past research in stratification and labor markets. For instance, if low-status people are more likely to activate networks that offer them fewer and more redundant resources, we thus see one reason why labor market churn can be particularly disastrous for low-skilled workers (Osterman 1999). By revealing the cognitive underpinnings of people's social network responses, our perspective complements otherwise structural explanations of why inequality might rise following social and economic dislocation. Network activation is a precondition to mobilization, whereby people who activate

different microstructures might therefore access different resources.

In addition to offering low-status people new job skills, managers seeking to combat these dynamics should offer such people broad ways to socialize (e.g., job counseling) so that they may expand their contacts and reduce clique formation. Network management technologies such as LinkedIn and Facebook could also help facilitate broader socialization. By visually displaying a person's network, these tools might make weaker ties (which would otherwise be cognitively less accessible than would strong ties) more salient. If high-status people are more likely to use such tools, they might be even more likely to easily recall and connect with weaker, more diverse ties. Encouraging the use of these tools across status groups could reduce the effect we found.

Despite the potential benefits of high-status people's bias toward network expansion, high-status people might face potential costs if they are too quick to expand their networks. Given that a possible pathology of open, expansive networks is exposure to noise (i.e., irrelevant distracting information; see Burt 2005), high-status people might struggle to sift through useful information and invest in unfruitful prospects too quickly. They might therefore fail to reinvest in their existing networks and salvage viable opportunities within the organization. When rebounding from job loss, high- versus low-status workers facing layoffs might therefore face contrasting challenges. Whereas low-status workers might encounter a dearth of opportunities, high-status workers might experience a lack of focus and confusion.

In addition to reducing their own future job prospects, low-status people could also undermine organizational goals by creating closed factions within the organization. Building on threat rigidity hypotheses, whereby threatened people narrow their cognitive processes (Gladstein and Riley 1985, Staw et al. 1981), threat might impede people's abilities to form and access transactive memory systems, i.e., their understandings of who knows what in the organization (Moreland et al. 1996). They might see their knowledge networks narrowly, failing to recognize important holders of information within the firm or feeling intimidated about approaching them (Borgatti and Cross 2003), thus impeding seamless knowledge transfer in the organization.

Finally, although we tested these hypotheses at the individual level, an analogous process could occur at the firm level. Whereas past research has shown how organizations under threat become rigid (Staw et al. 1981), respond defensively (Fein and Spencer 1997, Schimel et al. 2001), and experience reduced performance and lower cognitive functioning (Steele and Aronson 1995), this response might similarly be exacerbated among low-status organizations. Low-status firms, for instance, may dedicate the lion's share of their resources to survival rather than to scanning the competitive market

(White 1981), acquiring knowledge, and expanding networks. Thus, they might forgo opportunities to improve their performance and future outcomes.

### Limitations and Future Directions

Finally, despite these implications, consider two critical assumptions embedded in our research design that should be considered in future research. First, our research design involves people calling to mind potential helpers in their network. We assumed that the job seeker is active, whereas the network to which he or she belongs is passive (i.e., just waiting to be mobilized). It is also possible, however, to conceptualize the network as active. In other words, the job seeker's network contacts are also individual decision makers who can either accept or reject the job seeker's attempts at mobilization.

Treating networks as passive may be problematic if status is systematically related to the relative passivity of peoples' social networks. If low-status job seekers have more energetic and active helpers in their network, they may face fewer or no negative consequences by activating smaller networks. By contrast, if high-status job seekers have networks with less energetic or busier people, each of whom is less likely to respond to requests for help, they might need to activate larger networks, expecting to be able to mobilize only a portion. Although some evidence suggests that it is in fact the poor who are forsaken by their network contacts (Smith 2005), future research might reverse our paradigm and explore not only how status affects activation but also how a person's status is related to other people's willingness to help.

Second, the present research conceptualizes activation as a one-time event rather than as continually evolving. For instance, a low-status person who initially activates a large, broad network but experiences rejection when mobilizing the activated contacts might learn from experience and fail to activate as broad a network of contacts in the future. This example implies that activation is a recurrent, provisional process that is subject to learning, revision, and correction based on people's successes or failures at past mobilization. Future research might take this perspective seriously by measuring how people's activation patterns evolve over time in response to the feedback they received following prior attempts at network mobilization.

In conclusion, our key findings are that people's cognitive representations of their networks shift in response to situations such as job threat. Specifically, we find that those who perceive themselves to be the least well positioned in society's class hierarchy might be especially prone to reduce their networks' reach during times of threat, i.e., to activate smaller and denser networks. This paper is thus a first step in understanding how microlevel processes, such as the anxieties arising from job threat, can have macrolevel consequences. The individual-level

psychological costs that people face during times of unemployment and downward mobility (Newman 1988, Sharone 2007) yield differential network activation patterns that can translate into different mobilization patterns and may extend or even produce significant social dislocation. The microprocesses identified in this paper could help explain why some segments of the population emerge relatively unscathed, whereas others face even more desperate straits when society as a whole traverses a crisis.

### Acknowledgments

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### Endnotes

<sup>1</sup>To avoid overstating the class differences, we note that various researchers have described white-collar workers turning inward in response to job loss (Sharone 2007) and downward mobility (Newman 1988). Indeed, our key mechanism—perceived powerlessness—helps explain why these patterns can emerge among white-collar workers as well. Job loss triggers a general loss of power and control that can affect even high-status people if they feel powerless. However, we contend that low-status people are especially vulnerable to these responses given their more dramatic lack of power and control in society more broadly.

<sup>2</sup>Fischer references “technical error” and an “unusually taxing” interview session preceding the network questionnaire during the 2004 interviews as potential sources of data error.

<sup>3</sup>Constraint is computed as  $C_i = \sum_j [p_{ij} + \sum_q p_{iq} p_{qj}]^2$ , where  $p_{ij}$  is the proportion of  $i$ 's network invested in contact  $j$ , and  $i \neq j \neq q$ . An individual's constraint is the sum of squared proportions of  $i$ 's relationships that are directly or indirectly invested in all contacts,  $j$ . Constraint concerns ego's distribution of dependence on the various contacts,  $\sum_j p_{ij}^2$ , in addition to the density or closure in the network,  $\sum_j \sum_q p_{iq} p_{qj}$ . The models that appear in this paper use the untransformed constraint measure. We also ran models with a transformed constraint measure. Given the distribution of constraint scores, we used a  $1/(1-x)$  transformation, which is useful for making left-skewed distributions more normal. Results after the transformation do not differ substantively from the models discussed in this paper.

<sup>4</sup>One question to emerge from these findings is whether high- or low-status groups drive the effect. To answer this question we split the samples in both Studies 1 and 2 in half and compared the effect of threat on both groups. In Study 1, high-status groups primarily drive the effects. That is, we find that high-status people facing threat are more likely to activate large ( $\beta = 0.34$ ,  $SE = 0.17$ ,  $p = 0.053$ ) and unconstrained ( $\beta = -0.046$ ,  $SE = 0.024$ ,  $p = 0.063$ ) networks. We did not find significant effects for low-status people on size ( $\beta = -0.13$ ,  $SE = 0.015$ ,  $p = 0.39$ ) or constraint ( $\beta = 0.025$ ,  $SE = 0.021$ ,  $p = 0.22$ ). For Study 2, although there were trends in the predicted directions, there were non-significant effects for both high- and low-status people. That is, high-status people activated somewhat larger ( $F(1, 49) =$

$3.24$ ,  $p = 0.078$ ,  $h_p^2 = 0.062$ ), less constrained ( $F(1, 49) = 2.36$ ,  $p = 0.13$ ,  $h_p^2 = 0.046$ ) networks. Low-status people, on the other hand, activated somewhat smaller ( $F(1, 53) = 0.97$ ,  $p = 0.33$ ,  $h_p^2 = 0.018$ ) and denser ( $F(1, 53) = 2.32$ ,  $p = 0.13$ ,  $h_p^2 = 0.042$ ) networks. The key point, of course, is that the relative differences between the groups yield a significant interaction.

<sup>5</sup>To test the issue of budget constraints, we asked participants how much they would invest in the following network behaviors: lunches with good friends, lunches to meet new people, printing business cards, and gifts for family/close friends on special occasions. We did not find any significant differences in the level of investment in these network behaviors, failing to support a budgetary constraint explanation. Note that an explanation that low-status people face budgetary constraints also fails to account for high-status people's tendencies to broaden their networks in times of threat.

### References

- Aaronson, D., D. G. Sullivan. 1998. The decline of job security in the 1990s: Displacement, anxiety and their effect on wage growth. *Econom. Perspect.* **22**(1) 17–43.
- Adler, N. E., E. S. Epel, G. Castellazzo, J. R. Ickovics. 2000. Relationship of subjective and objective social class with psychological functioning: Preliminary data in healthy white women. *Health Psych.* **19**(6) 586–592.
- Ancona, D. G., D. F. Caldwell. 1992. Demography and design: Predictors of new product team performance. *Organ. Sci.* **3**(3) 321–341.
- Anderson, C., A. D. Galinsky. 2006. Power, optimism, and risk-taking. *Eur. J. Soc. Psych.* **36**(4) 511–536.
- Bargh, J. A., M. Chen, L. Burrows. 1996. Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *J. Personality Soc. Psych.* **71**(2) 230–244.
- Bearman, P. S., K. D. Everett. 1993. The structure of social protest, 1961–1983. *Soc. Networks* **15**(2) 171–200.
- Bernard, H. R., P. D. Killworth. 1977. Informant accuracy in social network data II. *Human Comm.* **4**(1) 3–18.
- Blau, P. 1964. *Exchange and Power in Social Life*. John Wiley & Sons, New York.
- Borgatti, S. P., R. Cross. 2003. A relational view of information seeking and learning in social networks. *Management Sci.* **49**(4) 432–445.
- Bothner, M. S., E. B. Smith., H. C. White. 2010. A model of robust positions in social networks. *Amer. J. Sociol.* **116**(3) 943–992.
- Brass, D. J., M. E. Burkhardt. 1993. Potential power and power use: An investigation of structure and behavior. *Acad. Management J.* **36**(3) 441–470.
- Briñol, P., R. E. Petty, C. Valle, D. D. Rucker, A. Becerra. 2007. The effects of message recipients' power before and after persuasion: A self-validation analysis. *J. Personality Soc. Psych.* **93**(6) 1040–1053.
- Burt, R. S. 1984. Network items and the general social survey. *Soc. Networks* **6**(4) 293–339.
- Burt, R. S. 1992. *Structural Holes: The Social Structure of Competition*. Harvard University Press, Cambridge, MA.
- Burt, R. S. 2005. *Brokerage and Closure: An Introduction to Social Capital*. Oxford University Press, New York.

- Carley, K. M. 1986. An approach for relating social structure to cognitive structure. *J. Math. Sociol.* **12**(2) 137–189.
- Castilla, E. J. 2005. Social networks and employee performance in a call center. *Amer. J. Sociol.* **110**(5) 1243–1283.
- CBS News/New York Times Poll. 2010. The president, congress and sissatisfaction with government (February 5–10, 2010). CBS News/*New York Times*, New York, [http://www.cbsnews.com/hdocs/pdf/poll\\_Obama\\_Congress\\_021110.pdf](http://www.cbsnews.com/hdocs/pdf/poll_Obama_Congress_021110.pdf).
- Davis, N. J., R. V. Robinson. 1988. Class identification of men and women in the 1970s and 1980s. *Amer. Sociol. Rev.* **53**(1) 103–112.
- Dion, K. 1979. Intergroup conflict and intragroup cohesiveness. W. G. Austin, S. Worchel, eds. *The Social Psychology of Intergroup Relations*, Vol. 21. Brooks/Cole, Monterey, CA.
- Dixon, J. C. 2006. The ties that bind and those that don't: Toward reconciling group threat and contact theories of prejudice. *Soc. Forces* **84**(4) 2179–2204.
- Duncan, O. D. 1984. *Notes of Social Measurement, Historical and Critical*. Russell Sage Foundation, New York.
- Easterbrook, J. A. 1959. The effect of emotion on cue utilization and the organization of behavior. *Psych. Rev.* **66**(3) 183–201.
- Fein, S., S. J. Spencer. 1997. Prejudice as self-imagine maintenance: Affirming the self through derogating others. *J. Personality Soc. Psych.* **73**(1) 31–44.
- Fernandez, R. M., M. L. Sosa. 2005. Gendering the job: Networks and recruitment at a call center. *Amer. J. Sociol.* **111**(3) 859–904.
- Fernandez, R. M., N. Weinberg. 1997. Sifting and sorting: Personal contacts and hiring in a retail bank. *Amer. Sociol. Rev.* **62**(6) 883–902.
- Fischer, C. S. 2009. The 2004 GSS finding of shrunken social networks: An artifact? *Amer. Sociol. Rev.* **74**(4) 657–669.
- Flynn, F. J., R. E. Reagans, E. T. Amanatullah, D. R. Ames. 2006. Helping one's way to the top: Self-monitors achieve status by helping others and knowing who helps whom. *J. Personality Soc. Psych.* **91**(6) 1123–1137.
- Freeman, L. C. 1979. Centrality in social networks: Conceptual clarification. *Soc. Networks* **1**(3) 215–239.
- Galinsky, A. D., D. H. Gruenfeld, J. C. Magee. 2003. From power to action. *J. Personality Soc. Psych.* **85**(3) 453–466.
- Galinsky, A. D., J. C. Magee, D. H. Gruenfeld, J. A. Whitson, K. A. Liljenquist. 2008. Power reduces the press of the situation: Implications for creativity, conformity, and dissonance. *J. Personality Soc. Psych.* **95**(6) 1450–1466.
- Gentner, D., J. Loewenstein, L. Thompson, K. D. Forbus. 2009. Reviving inert knowledge: Analogical abstraction supports relational retrieval of past events. *Cognitive Sci.* **33**(8) 1343–1382.
- GfK Roper Public Affairs and Media. 2009. The AP-GfK Poll (February 12–17, 2009). GfK Custom Research North America, New York, [http://www.ap-gfkipoll.com/pdf/AP\\_GfK\\_Poll\\_Feb\\_09\\_Topline.pdf](http://www.ap-gfkipoll.com/pdf/AP_GfK_Poll_Feb_09_Topline.pdf).
- Giessner, S. R., T. W. Schubert. 2007. High in the hierarchy: How vertical location and judgments of leaders' power are interrelated. *Organ. Behav. Human Decision Processes* **104**(1) 30–44.
- Gladstein, D. L., N. P. Reilly. 1985. Group decision making under threat: The tycoon game. *Acad. Management J.* **28**(3) 613–627.
- Granovetter, M. 1974. *Getting a Job: A Study of Contacts and Careers*. Harvard University Press, Cambridge, MA.
- Gruenfeld, D. H., M. E. Inesi, A. D. Galinsky, J. C. Magee. 2008. Power and the objectification of social targets. *J. Personality Soc. Psych.* **95**(1) 111–127.
- Higgins, E. T. 1996. Knowledge activation: Accessibility, applicability, and salience. E. T. Higgins, A. W. Kruglanski, eds. *Social Psychology: Handbook of Basic Principles*. Guilford, New York, 133–168.
- Hodge, S. M., P. M. Siegl, P. H. Rossi. 1964. Occupational prestige in the United States, 1925–63. *Amer. J. Sociol.* **70**(3) 286–302.
- Hong, Y. Y., M. W. Morris, C. Y. Chiu, V. Benet-Martínez. 2000. Multicultural minds: A dynamic constructivist approach to culture and cognition. *Amer. Psychologist* **55**(7) 709–720.
- Horvat, E. M., E. B. Weininger, A. Lareau. 2003. From social ties to social capital: Class differences in the relations between schools and parent networks. *Amer. Ed. Res. J.* **40**(2) 319–351.
- Janicik, G. A., R. P. Larrick. 2005. Social network schemas and the learning of incomplete networks. *J. Personality Soc. Psych.* **88**(2) 348–364.
- Keltner, D., D. H. Gruenfeld, C. Anderson. 2003. Power, approach, and inhibition. *Psych. Rev.* **110**(2) 265–284.
- Krackhardt, D. 1987. Cognitive social structures. *Soc. Networks* **9**(2) 109–134.
- Kraus, M. W., P. K. Piff, D. Keltner. 2009. Social class, sense of control, and social explanation. *J. Personality Soc. Psych.* **97**(6) 992–1004.
- Lareau, A. 2003. *Unequal Childhoods: Class, Race, and Family Life*. University of California Press, Berkeley.
- Lin, N. 2001. *Social Capital: A Theory of Social Structure and Action*. Cambridge University Press, Cambridge, UK.
- Lin, N., M. Dumin. 1986. Access to occupations through social ties. *Soc. Networks* **8**(4) 365–385.
- Mahler, J. 2009. GM and the fall of the black middle class. *New York Times Magazine* (June 28) MM30.
- Marsden, P. V. 1987. Core discussion networks of Americans. *Amer. Sociol. Rev.* **52**(1) 122–131.
- Marsden, P. V. 1990. Network data and measurement. *Annual Rev. Sociol.* **16** 435–463.
- Marsden, P. V., J. S. Hurlbert. 1988. Social resources and mobility outcomes: A replication and extension. *Soc. Forces* **66**(4) 1038–1059.
- McLaren, L. M. 2003. Anti-immigrant prejudice in Europe: Contact, threat perception, and preferences for the exclusion of migrants. *Soc. Forces* **81**(3) 909–936.
- Menon, T., L. Thompson. 2007. Don't hate me because I'm beautiful: Self-enhancing biases in threat appraisal. *Organ. Behav. Human Decision Processes* **104**(1) 45–60.
- Menon, T., L. Thompson, H.-S. Choi. 2006. Tainted knowledge vs. tempting knowledge: People avoid knowledge from internal rivals and seek knowledge from external rivals. *Management Sci.* **52**(8) 1129–1144.
- Michaelson, A., N. S. Contractor. 1992. Structural position and perceived similarity. *Soc. Psych. Quart.* **55**(3) 300–310.
- Moore, G. 1990. Structural determinants of men's and women's personal networks. *Amer. Sociol. Rev.* **55**(5) 726–735.
- Moreland, R. L., L. Argote, R. Krishnan. 1996. Socially shared cognition at work: Transactive memory and group performance. J. L. Nye, M. Bower, eds. *What's Social About Social Cognition? Research on Socially Shared Cognition in Small Groups*. Sage, Thousand Oaks, CA, 57–84.
- Morris, M. W., T. Menon, D. R. Ames. 2001. Culturally conferred conceptions of agency: A key to social perception of persons, groups, and other actors. *Personality Soc. Psych. Rev.* **5**(2) 169–182.

- Mouw, T. 2002. Are black workers missing the connection? The effect of spatial distance and employee referrals on interfirm racial segregation. *Demography* **39**(3) 507–528.
- Mouw, T. 2009. *The Use of Social Networks Among Hispanic Workers: An Indirect Test of the Effects of Social Capital*. University of North Carolina Press, Chapel Hill.
- Nadler, A. 1987. Determinants of help seeking behaviour: The effects of helper's similarity, task centrality and recipient's self esteem. *Eur. J. Soc. Psych.* **17**(1) 57–67.
- Nadler, A. 1991. Help-seeking behavior: Psychological costs and instrumental benefits. M. S. Clark, ed. *Review of Personality and Social Psychology*, Vol. 12. Sage, New York, 290–312.
- Newman, K. S. 1988. *Falling from Grace: Downward Mobility in the Age of Affluence*. Free Press, New York.
- Newman, K. S. 2000. *No Shame in My Game: The Working Poor in the Inner City*. Vintage, New York.
- Osterman, P. 1999. *Securing Prosperity: The American Labor Market: How It Has Changed and What to Do About It*. Princeton University Press, Princeton, NJ.
- Podolny, J. M., D. J. Phillips. 1996. The dynamics of organizational status. *Indust. Corporate Change* **5**(2) 453–471.
- Quillian, L. 1995. Prejudice as a response to perceived group threat: Population composition and anti-immigrant and racial prejudice in Europe. *Amer. Sociol. Rev.* **60**(4) 586–611.
- Reagans, R., B. McEvily. 2003. Network structure and knowledge transfer: The effects of cohesion and range. *Admin. Sci. Quart.* **48**(2) 240–267.
- Reagans, R., E. Zuckerman, B. McEvily. 2004. How to make the team: Social networks vs. demography as criteria for designing effective teams. *Admin. Sci. Quart.* **49**(1) 101–133.
- Rofé, Y. 1984. Stress and affiliation: A utility theory. *Psych. Rev.* **91**(2) 235–250.
- Roy, W. G. 1983. The interlocking directorate structure of the United States. *Amer. Sociol. Rev.* **48**(2) 248–257.
- Saxenian, A. 1994. *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Harvard University Press, Cambridge, MA.
- Schachter, S. 1959. *The Psychology of Affiliation*. Stanford University Press, Palo Alto, CA.
- Schimmel, J., J. Arndt, T. Pyszczynski, J. Greenberg. 2001. Being accepted for who we are: Evidence that social validation of the intrinsic self reduces general defensiveness. *J. Personality Soc. Psych.* **80**(1) 35–52.
- Schmidt, S. R. 1999. Long-run trends in workers' beliefs about their own job security: Evidence from the General Social Survey. *J. Labor. Econom.* **17**(S4) S127–S141.
- Shah, P. P. 2000. Network destruction: The structural implications of downsizing. *Acad. Management J.* **43**(1) 101–112.
- Sharone, O. 2007. Constructing unemployed job seekers as professional workers: The depoliticizing work-game of job searching. *Qualitative Sociol.* **30**(4) 403–416.
- Smith, S. S. 2005. "Don't put my name on it": Social capital activation and job-finding assistance among the black urban poor. *Amer. J. Sociol.* **111**(1) 1–57.
- Staw, B. M., L. E. Sandelands, J. E. Dutton. 1981. Threat-rigidity effects in organizational behavior: A multi-level analysis. *Admin. Sci. Quart.* **26**(4) 501–524.
- Steele, C. M. 1988. The psychology of self-affirmation: Sustaining the integrity of the self. L. Berkowitz, ed. *Advances in Experimental Social Psychology*, Vol. 21. Academic Press, New York, 261–302.
- Steele, C. M., J. Aronson. 1995. Stereotype threat and the intellectual test performance of African Americans. *J. Personality Soc. Psych.* **69**(5) 797–811.
- Stephens, N. M., M. G. Hamedani, H. R. Markus, H. B. Bergsieker, L. Eloul. 2009. Why did they "choose" to stay? Perspectives of Hurricane Katrina observers and survivors. *Psych. Sci.* **20**(7) 878–886.
- Turner, M. E., A. R. Pratkanis, P. Probasco, C. Leve. 1992. Threat, cohesion, and group effectiveness: Testing a social identity maintenance perspective on groupthink. *J. Personality Soc. Psych.* **63**(5) 781–796.
- Van De Ven, A. H., A. L. Delbecq, R. J. Koenig Jr. 1976. Determinants of coordination modes within organizations. *Amer. Sociol. Rev.* **41**(2) 322–338.
- Wacquant, L. J. D., W. J. Wilson. 1989. The cost of racial and class exclusion in the inner city. *Ann. Amer. Acad. Political Soc. Sci.* **501**(1) 8–25.
- Wasserman, S., K. Faust. 1994. *Social Network Analysis: Methods and Applications*. Cambridge University Press, Cambridge, UK.
- White, H. C. 1981. Where do markets come from? *Amer. J. Sociol.* **87**(3) 517–547.
- White, H. C. 1992. *Identity and Control: How Social Formations Emerge*. Princeton University Press, Princeton, NJ.
- Wilson, W. J. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. University of Chicago Press, Chicago.
- Winerip, M. 2009. Résumé writing for C.E.O.'s. *New York Times* (April 10) ST2.
- Winship, C., R. D. Mare. 1992. Models for sample selection bias. *Annual Rev. Sociol.* **18** 327–350.
- Yakubovich, V. 2005. Weak ties, information, and influence: How workers find jobs in a local Russian labor market. *Amer. Sociol. Rev.* **70**(3) 408–421.

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