

Nurturing interpersonal trust in knowledge-sharing networks

Lisa C. Abrams, Rob Cross, Eric Lesser, and Daniel Z. Levin

Executive Overview

In many organizations, informal networks are the primary means by which employees find information, solve complex problems, and learn how to do their work. Two forms of interpersonal trust—trust in a person’s competence and in a person’s benevolence—enable effective knowledge creation and sharing in these networks. Yet, though conceptually appealing, trust is an elusive concept that is often difficult for managers to influence. We conducted interviews in 20 organizations to identify ways in which interpersonal trust in a knowledge-sharing context develops. Based on this work, we summarize behaviors (e.g., discretion, consistency, collaboration) and practices (e.g., building shared vision, ensuring transparency in decision-making, holding people accountable for trust) for managers interested in promoting trust (and thereby knowledge creation and sharing) within their own organizations.

Today more than ever, an organization’s success hinges on its ability to create and share knowledge effectively and efficiently.¹ Initially, many executives set out to manage knowledge by implementing databases and organizational processes to capture and share reusable work products and lessons learned.² For example, professional services firms developed substantial databases to archive methodologies, tools, presentations, and other materials that could be quickly reused in projects around the globe. Similarly, pharmaceutical organizations invested in content repositories to provide in-house scientists with relevant information, speed up regulatory processes, and improve the productivity of sales and marketing staff. In these and many other industries, the allure of being able to bring to bear an organization’s best thinking on a given problem led many to invest significantly in technologies and organizational infrastructures to store and make widely available codified knowledge. In fact, a recent survey by the analyst firm IDC estimated that demand for knowledge-management technologies is anticipated to grow 41 per cent annually from \$2.3 billion in 2000 to \$12.7 billion in 2005.³

Yet these investments have rarely had the intended impact. While databases (and staff to support them) have grown to mammoth proportions, they are often underutilized as employees are much more likely to turn to peers and colleagues

than to impersonal sources for necessary knowledge.⁴ The result has been a “second wave” of knowledge-management advice geared toward promoting effective collaboration and learning in strategically important groups.⁵ Organizations as varied as McKinsey, Bristol Myers Squibb, the World Bank, and British Petroleum have begun to support “communities of practice” so that employees doing similar kinds of work can learn from one another.⁶ Alternatively, organizations from a wide range of industries are applying social-network analysis to help ensure that large, distributed groups—as in new product development, mergers and acquisitions, conglomerates, and knowledge-intensive work processes—are collaborating in ways that support strategic objectives.⁷ These initiatives promote efficiency as employees do not re-create work already done in distant parts of an organization. They also improve quality and innovation in products and services by enabling an organization to bring its best expertise to bear on a given opportunity.

In short, both practical experience and scholarly research have made clear that social networks critically affect knowledge creation and sharing in organizations.⁸ Our focus here is on how individuals build and maintain important relationships in these networks.⁹ In particular we are concerned with interpersonal trust as a central characteristic

of relationships that promotes effective knowledge creation and sharing in networks.¹⁰ Research shows that trust leads to increased overall knowledge exchange,¹¹ makes knowledge exchanges less costly,¹² and increases the likelihood that knowledge acquired from a colleague is sufficiently understood and absorbed that a person can put it to use.¹³ Yet outside of suggesting more face-to-face communication or giving employees more time and space—both difficult to provide in the current economy—practitioners have been offered little guidance regarding how to promote interpersonal trust at points in networks where knowledge creation and sharing are important.¹⁴

We are concerned with interpersonal trust as a central characteristic of relationships that promotes effective knowledge creation and sharing in networks.

Promoting Interpersonal Trust

Interpersonal trust can be defined as “the willingness of a party to be vulnerable.”¹⁵ In the context of knowledge creation and sharing in informal networks, research suggests two dimensions of trust that promote knowledge creation and sharing: benevolence (“You care about me and take an interest in my well-being and goals”) and competence (“You have relevant expertise and can be depended upon to know what you are talking about”).¹⁶ People are likely to rely on the benevolence of a given colleague in determining the extent to which they are forthcoming about their lack of knowledge. Asking for information or advice can make a person vulnerable to another. Benevolence-based trust allows one to query a colleague in depth without fear of damage to self-esteem or reputation.

In addition, people must also trust that the person they turn to has sufficient expertise to offer solutions. Competence-based trust allows one to feel confident that a person sought out knows what s/he is talking about and is worth listening to and learning from. These two dimensions of trust have been shown to be important for outcomes such as peer and manager performance.¹⁷ They have also been shown to be distinct relationship characteristics that enable knowledge transfer between two people.¹⁸

In our research we set out to better understand ways in which managers can promote this interpersonal trust as a foundation for learning and

knowledge transfer in networks. We found that many trust-building behaviors and actions affect both benevolence- and competence-based trust. As a result, we use the term interpersonal trust to refer to both forms of trust unless otherwise noted.

We conducted more than 40 interviews across 20 organizations (see Appendix for a description of organizations involved). Our intent was to get as broad a perspective as possible into ways in which managers can promote trust, so we chose a sampling strategy that provided a breadth of understanding, as opposed to focusing heavily on one or two organizations. Interviews were semi-structured and lasted approximately an hour. We grounded the interviewees in a recent project of importance and focused on two questions: First, how did interpersonal trust benefit knowledge transfer and the project itself? Second, what distinguished people considered trustworthy versus untrustworthy in the context of knowledge creation and sharing? We continually iterated between the emerging themes and the interview data until we could generate a set of consistent categories of actions and behaviors, which we term *trust builders*, that helped create trusting relationships.¹⁹ Our initial perspectives on behaviors and practices promoting trust were informed by relevant literatures on social networks, trust, social exchange, and organizational knowledge/learning.²⁰

The trust builders we outline below were derived from our interviews as they affirmed, extended, and added to existing research associated with interpersonal trust in a knowledge-transfer context. Given that our focus is on trust among knowledge-exchange partners, we found it useful to summarize our findings using research on employees’ trust in managers, which focuses on: actual trustworthy behaviors, organizational factors, relational factors, and individual factors.²¹

From our interviews, we learned that those who are seen as trustworthy sources of knowledge tend to: (1) act with discretion; (2) be consistent between word and deed; (3) ensure frequent and rich communication; (4) engage in collaborative communication; and (5) ensure that decisions are fair and transparent.²² Under organizational factors, we identified two ways to promote interpersonal trust: (6) establish and ensure shared vision and language; and (7) hold people accountable for trust.²³ Under relational factors, there is some overlap with the trustworthy behaviors mentioned above, but we also identified two new behaviors: (8) create personal connections; and (9) give away something of value.²⁴ Finally, under individual factors, a person’s own judgment of his or her abilities (self-efficacy) also matters, a trust-promoting behavior

identified in our interviews which we characterize as (10) disclose your expertise and limitations.²⁵ We will focus the rest of this section on these ten trust builders, which we have also summarized in Table 1 below.

1. Act with Discretion

When someone asks that certain information be kept confidential, doing otherwise violates that person's trust.²⁶ The need to keep confidences is particularly important in the advice-seeking context, because the most useful advice often comes about as a result of a back-and-forth sharing of all potentially relevant information. If people feel it is not safe to reveal such information, however, they may withhold facts that could help solve the problem or not be forthcoming about the extent of their own ignorance for fear of being exposed. This vulnerability inherent in most knowledge exchanges can be overcome, however, if people feel secure that any sensitive information revealed will remain confidential.

The need to keep confidences is particularly important in the advice-seeking context, because the most useful advice often comes about as a result of a back-and-forth sharing of all potentially relevant information.

Our interviewees consistently indicated that people who kept sensitive material to themselves were perceived as more trustworthy. For example, one person indicated that he was willing to share helpful but sensitive information with a knowledge seeker, since he knew that the seeker would respect his confidence. In contrast, another indicated that one manager was known to divulge information told to him in confidence, and as a result, many people did not trust him and did not share helpful but sensitive information with him. These and other interviewees richly conveyed the need to be comfortable in sharing confidential information and to feel secure that conversations would not be shared beyond the norms established by the knowledge seeker and source.

I know he won't spread things I tell him. So many people will share little tidbits with you that they shouldn't—things that others shared in confidence. Of course they do this like you are their buddy and that they trust you, but you have to know that these same people will

be sharing things about you in other settings. Not only does he not do this, but I have been in a couple of meetings where he stopped others from sharing things. This was a little embarrassing to them, but it really sent a signal about his willingness to maintain confidences. . . . With someone like that, you are much more willing to ask questions that might expose you or take risks with ideas you haven't thought through entirely.

Though a seemingly obvious prescription, acting with discretion was far from common in the experience of our interviewees. In fact, we frequently heard our interviewees describe using people's lack of discretion intentionally as a means of circulating information within a network. Of course the problem is that when everyone believes that what is discussed will likely be shared—even though assurances of confidentiality have been made—willingness to be open and vulnerable in asking for help diminishes throughout a group. Managers can promote discretion through both their own actions and, as the quote above suggests, by holding others accountable for this behavior.

2. Be Consistent Between Word and Deed

Research suggests that consistency between word and deed is an important determinant of trust.²⁷ Alignment between talk and action naturally precedes interpersonal trust by allowing people to place credence in what one says rather than try to determine ulterior motives or hidden agendas. This finding matches our intuitive experience. Most members of an organization will tell you that those people who "walk the talk" are more trusted. If a person frequently tells you one thing but then does another, it is only natural to wonder if that person really cares about you or your interests when giving you advice. If the word/deed inconsistency seems to be due to forgetfulness, disorganization, or a lack of planning, then that person may also be less likely to be seen as competent.

What I think is important is that I can count on her to do what she says she will do. It is kind of funny, but a lot of this is about managing expectations. I used to get irritated in meetings when she indicated things that she would not be able to do. I would feel like she was slowing us down. But I have circled to a point where I really appreciate knowing what I can rely on her for as she always comes through to the level she said she would. . . .

Table 1
Managerial Behaviors That Promote Interpersonal Trust

Trust Builder	Description and Logic	Managerial Actions
Trustworthy Behaviors		
1. Act with discretion	Keeping a secret means not exposing another person's vulnerability; thus, divulging a confidence makes a person seem malevolent and/or unprofessional. <i>Promotes: benevolence trust</i>	<ul style="list-style-type: none"> • Be clear about what information you are expected to keep confidential. • Don't reveal information you have said you would not . . . and hold others accountable for this.
2. Be consistent between word and deed	When people do not say one thing and do another, they are perceived as both caring about others (i.e., they do not mislead) and as being competent enough to follow through. <i>Promotes: benevolence and competence trust</i>	<ul style="list-style-type: none"> • Be clear about what you have committed to do, so there is no misunderstanding. • Set realistic expectations when committing to do something, and then deliver.
3. Ensure frequent and rich communication	Frequent, close interactions typically lead to positive feelings of caring about each other and better understandings of each other's expertise. <i>Promotes: benevolence and competence trust</i>	<ul style="list-style-type: none"> • Make interactions meaningful and memorable. • Consider having some face-to-face (or at least telephone) contact. • Develop close relationships.
4. Engage in collaborative communication	People are more willing to trust someone who shows a willingness to listen and share; i.e., to get involved and talk things through. In contrast, people are wary of someone who seems closed and will only answer clear-cut questions or discuss complete solutions. <i>Promotes: benevolence and competence trust</i>	<ul style="list-style-type: none"> • Avoid being overly critical or judgmental of ideas still in their infancy. • Don't always demand complete solutions from people trying to solve a problem. • Be willing to work with people to improve jointly on their partially formed ideas.
5. Ensure that decisions are fair and transparent	People take their cues from the larger environment. As a result, there is a "trickle down" effect for trust, where the way management treats people leads to a situation where employees treat one another similarly. Thus, fair and transparent decisions on personnel matters translate into a more trusting environment among everyone. <i>Promotes: benevolence trust</i>	<ul style="list-style-type: none"> • Make sure that people know how and why personnel rules are applied and that the rules are applied equally. • Make promotion and rewards criteria clear-cut, so people don't waste time developing a hidden agenda (or trying to decode everyone else's).
Organizational Factors		
6. Establish and ensure shared vision and language	People who have similar goals and who think alike find it easier to form a closer bond and to understand one another's communications and expertise. <i>Promotes: benevolence and competence trust</i>	<ul style="list-style-type: none"> • Set common goals early on. • Look for opportunities to create common terminology and ways of thinking. • Be on the lookout for misunderstandings due to differences in jargon or thought processes.
7. Hold people accountable for trust	To make trustworthy behavior become "how we do things here," managers need to measure and reward it. Even if the measures are subjective, evaluating people's trustworthiness sends a strong signal to everyone that trust is critical. <i>Promotes: benevolence and competence trust</i>	<ul style="list-style-type: none"> • Explicitly include measures of trustworthiness in performance evaluations. • Resist the urge to reward high performers who are not trustworthy. • Keep publicizing key values such as trust—highlighting both rewarded good examples and punished violations—in multiple forums.
Relational Factors		
8. Create personal connections	When two people share information about their personal lives, especially about similarities, then a stronger bond and greater trust develop. Nonwork connections make a person seem more "real" and human, and thus more trustworthy. <i>Promotes: benevolence trust</i>	<ul style="list-style-type: none"> • Create a "human connection" with someone based on nonwork things you have in common. • Maintain a quality connection when you do occasionally run into acquaintances, including discussing nonwork topics. • Don't divulge personal information shared in confidence.
9. Give away something of value	Giving trust and good faith to someone makes that person want to be trusting, loyal, and generous in return. <i>Promotes: benevolence trust</i>	<ul style="list-style-type: none"> • When appropriate, take risks in sharing your expertise with people. • Be willing to offer others your personal network of contacts when appropriate.
Individual Factors		
10. Disclose your expertise and limitations	Being candid about your limitations gives people confidence that they can trust what you say or your strengths. If you claim to know everything, then no one is sure when to believe you. <i>Promotes: competence trust</i>	<ul style="list-style-type: none"> • Make clear <i>both</i> what you do and don't know. • Admit it when you don't know something rather than posture to avoid embarrassment. • Defer to people who know more than you do about a topic.

This consistency really promotes a belief that I can rely on her abilities.

The challenge here seems to be twofold. First, one must be aware of implicit and explicit commitments made to others and act in consistent ways. Common agreement on these commitments must exist; quite often minimal differences in expectations between two parties can cause substantial problems. Second, and perhaps more difficult for many people, is setting realistic expectations. People who are more trusted tend to set realistic expectations of what they can accomplish and then almost always deliver on their commitments. The danger seems to exist here largely in the expectation-setting stage. There is often a tendency to over-commit to things on which one will not be able to deliver.

3. Ensure Frequent and Rich Communication

More frequent communication increases the amount of information available to assess another's abilities, intentions, and behaviors within the relationship²⁸ and provides more opportunity for people to develop a shared vision and language and so increase trust in one another's competence. Further, social psychologists have shown us that mere exposure to something typically leads people to have increased feelings of liking.²⁹ Thus, existing research supports a link between communication frequency and trust.³⁰

We have seen innovative means of promoting effective trust-building collaboration in various settings. These forums are in contrast to the standard operational status meeting, where people are brought together, spoken to about business performance or other trends, and then told to mingle at a cocktail hour, usually with those they already know. The more successful forums—exemplified by quarterly management conferences at companies like Nucor Steel³¹—have people read the material beforehand and use precious time when together for joint problem solving. For example, utilizing breakouts with teams formed of members from various functions or physical locations not only helps to solve problems but also helps people create relationships across these boundaries. Quite often these relationships last beyond the meeting, having the effect of creating a more robust network.

The quality of these interactions also matters. In part this is a function of communication mode. In our interviews, most of the trusted relationships at some point entailed some significant block of face-

to-face (or at least telephone) contact. Further, our interviewees almost universally indicated that what mattered most was ensuring a "quality" connection when an exchange did occur. This almost always entailed catching up on a personal level (e.g., people, hobbies, or experiences in common) as well as on a professional level (e.g., recent work experiences, current or future opportunities, organizational gossip).

I don't have to get together very often with him to maintain the relationship and trust we have. It might be months between connections, but when we do get together it is a solid connection, often on both a personal and professional front, where we both know each of us is, at some level, interested in helping the other.

4. Engage in Collaborative Communication

Besides the frequency and richness of medium of communication, another feature of "quality" interactions is an inquiring *style* of communication, where both sides feel free to share and really listen to each other's thoughts and ideas.³² For example, welcoming exploration and potentially ill-formed thoughts and solutions at appropriate junctures can be critical to the development of trust in a relationship.³³ Many important situations in organizations are inherently ambiguous, where resolving the problem requires first framing it to make sure that the right problem is being solved.

However, the spoken or unspoken norm of many leaders in Corporate America is: "Come to me with solutions, not problems." Unfortunately people seem to be cognitively hard-wired to dislike uncertainty and have a need to view the world as predictable and controllable.³⁴

Our interviews frequently revealed that people are more likely to seek out and trust others who allow exploration and brainstorming at appropriate points in a project. In many situations, people seeking information or advice are not completely sure of the question they are asking, much less have answers to their questions. Knowledge sources willing to tolerate the process of inquiry and provide latitude to those who approach them are viewed as more trustworthy. For example, one of our interviewees was designing a customer-facing Website for his organization. He was able to use his supervisor as a sounding board prior to making the final decisions:

I got help from Ed, so I didn't go too far down the wrong path. He was willing to engage in

an incomplete idea—I didn't need to have it all figured out or done before going to talk to him. This was critical to the success of the project. Rather than going and asking for precise information or blessings on my solutions, we jointly crafted important aspects of the project. Because I was able to go to him with partially formed ideas, his own thinking shaped the project early on and had a great deal to do with its success.

Here the final project ended up with a much better result than if the seeker had had to turn to his boss with predetermined solutions rather than engage in constructive dialogue. He was able to tap into his supervisor's expertise in a way that helped him learn, and the two of them, together, generated a solution. Since the seeker trusted the source not to penalize him for "not knowing," the project's end result was much better than it would have been without this latitude.

5. Ensure That Decisions Are Fair and Transparent

Outcomes unfavourable for some people, particularly in personnel-related matters like promotions, are inevitable in any organization, but disappointed employees will still support their managers if they trust them.³⁵ "Research indicates that the extent to which performance appraisal procedures follow principles of procedural justice," for example, "has a positive impact on employees' trust in their manager."³⁶ While the primary emphasis of our interviews was the relationship between a knowledge seeker and knowledge source, we also found that trust in management "trickled down" to influence trust among employees. The extent to which management was able to incorporate both fairness (i.e., rules are applied equally to individuals) and transparency (i.e., knowing how and why rules are applied) into decision-making processes played a role in how individuals viewed their relationships with others in the organization.

For example, many of our interviewees focused on promotion and rewards as two areas where standards were not always clear or equally applied across individuals and groups. This lack of equity, or at least of transparency, in decisions appeared to permeate some organizations and influence the general perception of trustworthiness across a whole range of topics and colleagues. In one organization, a respondent critiqued his organization's promotion system:

There is a tendency to promote who you know rather than bringing in new talent. The result

is nepotism. There is so much mistrust in our promotion system now that [the organization is] bringing in independent evaluators. People are still suspicious of the outsiders, though, since they were brought in by somebody. It just seems safer to play your cards close to your chest, not to talk or stick your neck out. You don't get anything but grief if you do.

"It just seems safer to play your cards close to your chest, not to talk or stick your neck out. You don't get anything but grief if you do."

This interviewee went on to indicate that mistrust in the promotion system had led to "an inbred organization" and cast suspicion on all of the reward systems, not just promotions. Moreover, he had to spend a lot of time in this environment "decoding" what he heard to find out the truth. Throughout the interviews, promotions and promotion standards were one of the hot buttons for respondents, along with career path, salary and evaluations. When these were viewed as unfair, employees began to view even inconsequential comments with suspicion, a finding consistent with the literature on procedural justice. So rather than trusting someone's word, people felt that they had to check and double check what was said. Furthermore, in playing their cards close to the chest, employees did not engage in discussions or put forth ideas that might not be considered absolutely correct for fear of the consequences.

6. Establish and Ensure Shared Vision and Language

Some have suggested that having shared vision³⁷ (e.g., common goals) and shared language³⁸ (e.g., similar jargon and terminology) increases trust within informal networks. Interviews indicated that one powerful means of promoting trust via shared vision and language was to initiate projects in a way that establishes a commonly held vision of the group's objectives and clarification of unique terminology. For example, one manager we interviewed described a scenario in which a new product development team decided not to spend time ensuring that team members shared terminology and expectations. Interestingly, this organization as a whole usually employed a step-by-step methodology for setting up and investing in teams early in their lifecycle and even provided a set of

tools and exercises to guide new teams through this process. However, for the sake of “efficiency,” this team decided to “get right to work.” So what happened?

Fissures in the group appeared early on, and within one or two months the situation had deteriorated to the point of crisis. There were two related problems. First, various group members interpreted the team’s mandate differently. Everyone thought they were doing appropriate work, but when they met to review progress, people found that they had gone in different directions seemingly without reason. The team members were unaware that they were interpreting the team’s directions differently. They thought only that their coworkers were doing bad work or, worse, were pursuing political agendas. This distrust arose from a lack of shared vision.

Second, in terms of shared language, when the team members talked to one another and used the same words, these words occasionally meant different things to different people. In one almost comical situation, a significant lack of trust developed between two team members—one from the US and one from England—based on different meanings attached to the word *quite*. To the US team member, *quite* was a modifier meaning “a lot of something”—so saying the new software was *quite* effective at a given application meant that it was very effective. In contrast, for the English teammate, saying an application of the software was *quite* effective meant that this part of the program was just getting by, that it was not all that effective. Over time, hearing each other use that one word differently in discussions with customers, superiors, and other team members led them to believe that the other person was posturing. This created a great deal of mistrust in terms of both competence (“Is he blind? How could he say that was quite effective?”) and benevolence (“He is trying to make his part of this project look better in the eyes of an important manager!”) of the other person until one of them serendipitously learned the different meanings attached to this word at a cocktail party. As anthropologists and others have long noted, this same kind of misinterpretation occurs frequently as people from different functional, educational, or cultural backgrounds place different meanings on different words or phrases.

7. Hold People Accountable for Trust

The well-known finding that you get what you reinforce and reward can be applied to trust as well.³⁹ In many of the companies we interviewed, we heard a common lament: that you cannot mea-

sure or assess something as intangible as trust. But several of the organizations we observed were attempting to evaluate and recognize trust through either formal or informal organizational processes. On an informal basis, one organization had for several years addressed this issue from a cultural perspective. This organization had invested substantially in clarifying a set of values that the organization stood for. But rather than making this an executive exercise that did not permeate the inner workings of the organization, the leaders invested heavily in holding one another and the entire organization accountable for these values. The effect was felt very deep in the organization, as exemplified by one employee:

We have values: service/solutions; personal excellence; integrity; respect and trust; innovation: teamwork. The how you do something is just as important as what you do. Performing well but not acting with integrity or as a good team player will not get you the kudos you might get in a firm that is more “star” oriented. Some people prefer to take shortcuts with honesty, respect, and teamwork, but in the longer term these folks end up discrediting their projects and [the company].

This company was willing to spend the time and energy to train everyone in the importance of these values and to work out a comprehensive evaluation process for assessing employee behavior in relation to these values. Many companies can say that they value integrity; not as many will put their employees through training; and few will formulate a working evaluation system and tie in compensation. This organization did all of these things. As a result of the extensive “values training,” for example, all employees held one another accountable to the stated values. According to our interviews, both the training and the formalized statements facilitated turning these abstract values into concrete norms of behavior.

Many companies can say that they value integrity; not as many will put their employees through training; and few will formulate a working evaluation system and tie in compensation.

The importance of trust can also be demonstrated through a firm’s human resources practices, such as holding people accountable for past trustworthy behaviors at previous jobs—before de-

cluding to hire them. For example, one professional services organization uses an extremely thorough recruiting process that involves a host of interviews and psychological tests. The firm invests in this extensive process to evaluate not only an individual's capability, but also his or her ability to work in the firm's collaborative environment. On more than one occasion, the firm has decided against hiring senior candidates with proven track records because the hiring managers felt that the persons would not be an effective fit with the firm's culture.

In our interviews we heard of several types of evaluation systems that addressed trust. In one organization, managers wrote paragraphs about different aspects of an employee's performance and rated employees on trust-related dimensions. Having several distinct questions gave people ample opportunity to think about their own behavior and evaluate the behavior of others. This approach was a signal that interpersonal trust is important to the company and deserves serious consideration. In another firm, trust was simply measured as part of a quantitative assessment that managers completed for their direct reports. While not everyone weighted it equally on the evaluation form (some thought it more important, others less), everyone thought it significant that trust was mentioned explicitly. There were four sections to the performance appraisal document: external focus, innovation, people, and performance. Trust was explicitly assessed in the "people" section, which itself had four categories of performance (leadership, empowerment/accountability, candor/trust/integrity, and communication). For candor/trust/integrity, the supporting values and behaviors were: (a) is realistic; (b) is discreet; (c) establishes mutual respect and trust in dealing with others; (d) acts and behaves in accordance with his/her words; (e) assumes responsibility for own mistakes; (f) commits to honesty/truth in every facet of behavior; (g) demonstrates ethical conduct.

8. Create Personal Connections

People occupy roles at work that dictate how they "should" act.⁴⁰ These expectations can create an artificial separation between employees that erodes trust. Yet almost all of our interviews highlighted the importance of personal connection and learning about things in common with another person as a substantial way in which trust begins to develop in a relationship. These things in common ranged from background (e.g., education, neighborhood, family status) to values or predisposi-

tions (e.g., the kind of work they enjoyed, management philosophies, political leanings) and helped people feel that they related well to each other on more than an instrumental basis. For example, one manager indicated:

I guess it was when I learned that we both had children of similar ages and struggled with issues of balancing work and home. That she is comfortable enough to say these things—share personal concerns, I mean—shows that she is willing to be vulnerable to me in a sense and so trusts me. It also indicates that our relationship is one she values beyond getting work done. So I think both of these things start to accrue when you move beyond strictly work-based discussions...and, for me at least, they are important to being willing to trust someone else.

In many ways, non-work connections made other people seem "real" and therefore approachable and safe. These personal connections created a belief that each person had some level of concern for the other. In merging two groups after an acquisition, one organization we worked with held a series of face-to-face meetings to help encourage trust and integration of the merged group. Most notably, they created what they called a *persona book*, with color pictures and background information on people. Part of this was professional information (e.g., areas of expertise, company career, previous employment, education) that allowed employees to quickly learn about their new colleagues' expertise. But that is not the part that people seemed to care about. Rather, the people we interviewed repeatedly indicated that it was the personal information (e.g., person you'd most like to have lunch with, ideal vacation that you've never taken, hobbies or hidden talents, first job or weirdest experience) that they read and used in making contact with other people.

In many ways, non-work connections made other people seem "real" and therefore approachable and safe.

Of course, the extent to which people are willing to make disclosures regarding their personal lives depends in part on their individual comfort level. Many people may be hesitant to share details of their personal lives with others in the office, either because they feel that such information could be taken out of context or simply because they wish to

maintain a separation between their work and private lives. Yet, establishing some non-work-related connection seems to pay dividends in promoting interpersonal trust important for knowledge transfer.

9. Give Away Something of Value

Giving without expecting something in return is a show of trust. As outlined by Peter Blau, "Social exchange is distinguished from strictly economic exchange by the unspecified obligations incurred in it and the trust both required for and promoted by it."⁴¹ Unlike a legal contract, this process of social exchange hinges on trust as crucial for the provider to take initial action based on a belief that the receiver will respond in like kind at some future point.⁴² In our interviews it was clear that knowledge seekers often looked for such signals to determine the extent to which they would trust someone's benevolence. When a knowledge source provided access to a limited or sensitive resource, knowledge seekers often took this as a sign that the knowledge source viewed them as trustworthy. This, in turn, often promoted a sense of reciprocal trust in the knowledge source.

Two primary examples of these limited or sensitive resources emerged in the interviews. First, sharing tacit, or experiential, knowledge often led to the development of benevolence-based trust. People willing to take the time to talk with a junior employee about the subtleties and nuances of managing a sensitive account, or dealing with a difficult supervisor, are often exposing themselves on a number of levels. Not only were knowledge sources investing the time to share their knowledge (taking them away from other potential duties), but they were also revealing knowledge that left them open to second-guessing about their past decisions. By imparting this tacit knowledge, the knowledge providers are left vulnerable to having their knowledge misappropriated or misunderstood. And they potentially run the risk of having naïve knowledge seekers misuse this knowledge, only to report back to their own bosses that "S/he [knowledge source] told me to do it this way."

A second important type of assistance was sharing personal networks. Since revealing one's personal contacts could jeopardize the knowledge source's reputation and social capital, allowing outsiders to tap into this network was often considered an important trust signal. One woman described her experience as a new consultant and the trust she developed with one of her project managers during an assignment in the financial services industry. To complete this project, she needed to obtain specific information that could only be collected through se-

nior industry executives. One of the project managers shared several personal contacts, who were instrumental in getting her tasks accomplished:

He made his connections at different banks available to us, so we got to speak to people we wouldn't get to see otherwise. Often project managers take the opportunity to talk to other influential people to build their own political connections. But he was clearly connecting us underlings to try and help us both in getting information as well as in our careers. He would also send us additional data sources with a log-in and password for all kinds of sources that were helpful to us in getting our work done.

In this situation the leader of the project offered his personal network (of individuals and data sources), which was one of the most valuable assets he could have made available. He trusted the new consultant to act appropriately and professionally, despite the potential risks associated with her lack of experience. Through demonstrating trust in the knowledge seeker, this knowledge source was, in return, viewed as highly benevolent and so benefited in several ways. The seeker repaid the source's show of confidence both tangibly, with better work products, and intangibly, with loyalty and enthusiasm. Consistent with research on social exchange and reciprocity, these positive behaviors reinforced each other over time; i.e., the knowledge source and seeker in this example continued to treat each other with trust and to work productively together.

10. Disclose Your Expertise and Limitations

An often-overlooked but critical skill in business is the ability to accurately assess who knows what.⁴³ This is particularly difficult, though, when prior interactions have been limited or knowledge seekers do not know much about the problem or knowledge domain about which they have a question. In such settings, letting another person influence one's thinking is a leap of faith based on trust in that person's competence. In the extreme, knowledge seekers might be putting aspects of a critical project in the hands of another if they allow that person to influence their thinking. Less significant but still noteworthy can be the cost of wasted time and effort spent finding out that people are not knowledgeable in the areas in which they claim to be. Yet far too frequently, organizations leave this awareness of "who knows what" to chance. And, unfortunately, most team-building exercises tend to focus only on group harmony and do little to identify group members'

expertise. As a result, people's expertise is often discovered only serendipitously.

An often-overlooked but critical skill in business is the ability to accurately assess who knows what.

In terms of disclosing one's expertise, demonstrations of competence are clearly an important trustworthiness signal. Yet it is also valuable for knowledge sources to highlight the boundaries of their knowledge by, for example, being very clear about domains in which they do not feel they have expertise. When potential knowledge sources delineate the limits of their knowledge, it adds additional credibility to the topics about which they do claim expertise. One respondent, in describing a trusted coworker, said that this person would not hesitate to turn to someone else as an expert. She was known to answer direct questions by saying, for example, "Joe is an expert on that. Why don't we hear what he has to say?" Our interviewees suggested that when knowledge sources delineated their areas of proficiency, this action served as an important credibility signal and allowed knowledge seekers to learn more efficiently. For example, one woman who worked closely with her supervisor on marketing events indicated:

She has a great track record and seems to always have first-hand experience. But if she doesn't know something, she'll say so. Because she was so open about her strengths and weaknesses, I felt I could trust her when she did give me information or guidance. This is in contrast to someone who I wouldn't trust who never listened or yielded to someone who knows better. A person like that is more interested in appearing right or knowledgeable than in being right or knowledgeable, so I couldn't trust that what he told me was accurate.

Our interviews made it clear that delineating areas of expertise was a behavior that markedly distinguished more from less trusted knowledge sources. The information seeker in the above example benefited in terms of both efficiency and effectiveness in her search. If her supervisor did not know the answer, the seeker knew that she would say so rather than make something up or send the seeker down the wrong path or give her misguided advice. With a knowledge source secure enough to say "I don't know," the knowledge seeker could find someone else who could help her

without delay. She also saved time, because when her supervisor gave her information, she could trust that it was accurate and so did not have to double-check what she received.

Highlighting the boundaries of one's expertise, however, can be problematic in many organizations, because the pressure to "know all the answers" often drives people to answer questions with more confidence than they should have. In addition, by specifying that they are not knowledgeable in a given area, knowledge sources make themselves vulnerable. Yet such knowledge sources were often seen as signaling a willingness to engage in a relationship where vulnerabilities can be disclosed without exploitation. For example, a manager we interviewed who had significant experience in a government organization was placed in charge of a new department. He clearly did not have the subject-matter knowledge of the people reporting to him. Early in his tenure, he made it clear that he did not have this knowledge and did not expect to contribute to the success of the group in this fashion. Rather, he spent time with the group talking about his experience across the agency and passed along organizational insights that many found quite useful. As a result of these interactions, people we interviewed quickly came to see the new manager as a trusted and competent source in these areas.

Focusing on the Right Trust Builders

While technological advances can help in the search for useful knowledge, numerous research studies confirm that people prefer to get useful information and advice from other people. To facilitate this process, many organizations have begun to support communities of practice or apply social-network analysis to improve knowledge creation and sharing in important networks. To be sure, social-network analysis can help uncover problem points in networks. For example, new product development initiatives, post-merger integration, alliance interfaces, and cross-functional relationships are but a few of the kinds of networks that frequently fragment—e.g., people do not communicate with one another, or at least not effectively—in ways that invisibly hamper organizational performance. Yet while social-network analysis can help managers pinpoint problem areas, this approach alone does not illustrate what is creating sparse or fragmented networks or what to do about it. Drawing on existing research that has established the critical role of interpersonal trust in knowledge transfer, this article offers specific guidance to managers interested in promoting interpersonal trust where effective collaboration is important to organizational initiatives.

Based on the existing literature and interviews in 20 organizations, we have offered a set of ten behaviors and practices that promote interpersonal trust. Our experience in this research suggests that the right set of trust builders to focus on is likely unique for each organization. In some of our research settings, managerial behaviors appeared key to correcting problem points. In others, human resource practices created a context that encouraged behaviors leading to either trust or mistrust over time. The specific environment that one is in will dictate which trust builders offer the greatest potential to improve interpersonal trust. However, combining these trust builders with a social-network perspective can yield very targeted and successful interventions. Once problem points in a network have been uncovered, our trust builders can be applied in an appropriate fashion.

Appendix

Description of the 20 Organizations Participating in the Interviews

CORPORATIONS—13 organizations

- 3 Global 500 ranked pharmaceutical companies
- 3 U.S.-based software companies
- 2 Global 500 ranked financial services companies
- 2 Global 500 ranked energy companies
- A Global 100, U.S. 100 ranked motor vehicle company
- A Global 100, U.S. 100 ranked computer company
- A Global 500, U.S. 100 ranked electronics company

GOVERNMENT/NON-PROFIT—7 organizations

- 2 multi-national lending agencies
- 2 U.S. Federal transportation-related agencies
- A defense agency
- A European government agency
- A U.S. military organization

Acknowledgments

The order of authorship for this article is alphabetical.

We are grateful to Bob Ford, Ellen Whitener, and two anonymous reviewers for insightful and constructive comments on this work.

Endnotes

¹ Davenport, T. H., & Prusak, L. 1998. *Working knowledge: How organizations manage what they know*. Boston: Harvard Business School Press; Drucker, P. 1993. *Post capitalist society*. Cambridge, UK: Oxford.

² Ruggles, R. 1998. The state of the notion: Knowledge management in practice. *California Management Review*, 40(3): 80–89; Davenport, T. H., De Long, D. W., & Beers, M. C. 1998. Suc-

cessful knowledge management projects. *Sloan Management Review*, 39(2): 43–57.

³ Dyer, G. 2001. *U.S. and worldwide knowledge management market forecast and analysis, 2000–2005*. Framingham, MA: IDC.

⁴ Linden, A., et al. 2002. *Gartner's survey on managing information*. Note Number: COM-15-0871. Gartner, Inc.

⁵ Brown, J. S., & Duguid, P. 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning and innovation. *Organization Science*, 2: 40–57; Dixon, N. 2000. *Common knowledge: How companies thrive by sharing what they know*. Boston: Harvard Business School Press; von Krogh, G., Ichijo, K., & Nonaka, I. 2000. *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation*. New York: Oxford University Press.

⁶ Wenger, E. C., & Snyder, W. M. 2000. Communities of practice: The organizational frontier. *Harvard Business Review*, 78 (1): 139–145; Wenger, E. 1998. *Communities of practice: Learning, meaning, and identity*. New York: Cambridge University Press.

⁷ Cross, R., Nohria, N., & Parker, A. 2002. Six myths about informal networks—And how to overcome them. *Sloan Management Review*, 43(3): 67–76; Cross, R. & Prusak, L. 2002. The people who make organizations go—or stop. *Harvard Business Review*, 80(6): 104–112.

⁸ Borgatti, S., & Cross, R. 2003. A social network view of organizational learning: Relational and structural dimensions of “know who.” *Management Science*, in press; Hansen, M. T. 1999. The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44: 82–111; Szulanski, G. 1996. Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17(Winter): 27–43; Uzzi, B. 1997. Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42: 35–67.

⁹ Of course, by focusing principally on individual relationships within a network, we have put limited emphasis on structural influences that may operate at the network level, such as third-party referrals, cliques, or network position.

¹⁰ Tsai, W., & Ghoshal, S. 1998. Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal*, 41: 464–476.

¹¹ Cross & Prusak, op. cit.; O'Reilly, C., & Roberts, K. 1974. Information filtration in organizations: Three experiments. *Organizational behavior and human decision processes*, 11: 253–265; Penley, L. E., & Hawkins, B. 1985. Studying interpersonal communication in organizations: A leadership application. *Academy of Management Journal*, 28: 309–326; Tsai & Ghoshal, op. cit.; Zand, D. E. 1972. Trust and managerial problem solving. *Administrative Science Quarterly*, 17: 229–239.

¹² Currall, S., & Judge, T. 1995. Measuring trust between organizational boundary role persons. *Organizational Behavior and Human Decision Processes*, 64: 151–170; Zaheer, A., McEvily, B., & Perrone, V. 1998. Exploring the effects of interorganizational and interpersonal trust on performance. *Organization Science*, 9: 141–159.

¹³ Argyris, C. 1982. *Reasoning, learning and action*. San Francisco, CA: Jossey-Bass; Cross, R., Rice, R., & Parker, A. 2001. Information seeking in social context: Structural influences and receipt of informational benefits. *IEEE Transactions*, 31(4): 438–448; Levin, D., & Cross, R. (in press). The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. *Management Science*; Mayer, R. C., Davis, J. H., & Schoorman, F. D. 1995. An integration model of organizational trust. *Academy of Management Review*, 20: 709–734.

¹⁴ For exceptions see: Baker, W. 2000. *Achieving success through social capital: Tapping the hidden resources in your*

personal and business networks. San Francisco: Jossey Bass; Cohen, D., & Prusak, L., 2001. *In good company*. Cambridge, MA: Harvard Business School Press.

¹⁵ Trust is a multifaceted and elusive concept that in its entirety goes beyond our scope here. Comprehensive reviews of the trust literature include: Gambetta, D. 1988. *Trust: Making and breaking cooperative relations*. Oxford, UK: Basil Blackwell; Mayer, R. C., Davis, J. H., & Schoorman, F. D. 1995. An integration model of organizational trust. *Academy of Management Review*, 20: 709–734; Kramer, R., & Tyler, T. (Eds.). 1996. *Trust in organizations: Frontiers of theory and research*. Thousand Oaks, CA: Sage; Dirks, K. T., & Ferrin, D. L. 2001. The role of trust in organizational settings. *Organization Science*, 12: 450–467.

¹⁶ In their 1995 article, “An integrative model of organizational trust,” *Academy of Management Review*, 20: 709–734, Roger C. Mayer and his colleagues James H. Davis and F. David Schoorman identify a third dimension of trustworthiness, integrity, defined as consistently adhering to a set of principles that the trustor finds acceptable. Integrity is clearly important in many situations. Parties to a market exchange, colleagues counting on each other to complete certain tasks, or subordinates committing their efforts and career progression to a superior are surely affected by the perceived integrity of others. Yet it is not clear that seeking a person out for information or advice is contingent on that person following a particular set of principles consistently. For example, malevolent integrity—a condition of low benevolence and high integrity—might apply to situations that are purely competitive, such as two boxers trying to hurt each other but still playing by the rules. However, it is unlikely that *knowledge seekers* would make much distinction between someone who is out to harm them versus someone who is honest and consistent about an intention to harm them.

¹⁷ McAllister, D. J. 1995. Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38: 24–59.

¹⁸ Levin & Cross, op. cit.

¹⁹ In this qualitative phase of data collection, we followed the guidance of Yin, R. K. 1994. *Case study research: Design and methods*, 2nd ed. Newbury Park, CA: Sage; also: Lincoln, Y., & Guba, E. 1985. *Naturalistic inquiry*. Beverly Hills, CA: Sage.

²⁰ The following work provides examples of literature in each tradition that was influential in framing our interviews: (1) **social networks**: Brass, D. 1995. A social network perspective on human resources management. *Research in Personnel and Human Resources Management*, 13: 39–79; Burt, R. 2000. The network structure of social capital. In R. Sutton and B. Staw (Eds.), *Research in Organizational Behavior* (pp. 325–433). Greenwich, CT: JAI Press; Granovetter, M. 1973. The strength of weak ties. *American Journal of Sociology*, 78: 1360–1380; Ibarra, H. 1992. Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly*, 36: 471–501; Krackhardt, D. 1992. The strength of strong ties: The importance of philos in organizations. In N. Nohria & R. Eccles (Eds.), *Networks and organizations: Structures, form and action*: 216–239. Boston: Harvard Business School Press; Uzzi, B. 1997. Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42: 35–67. (2) **trust**: Butler, J. K., Jr. 1991. Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory. *Journal of Management*, 17: 643–663; Kramer, R., & Tyler, T. (Eds.) 1996. *Trust in organizations: Frontiers of theory and research*. Thousand Oaks, CA: Sage; Mayer, R. C., Davis, J. H., & Schoorman, F. D. 1995. An integration model of organizational trust. *Academy of Management Review*, 20: 709–734; McAllister, D. J. 1995. Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38:

24–59; Whitener, E., et al. 1998. Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23: 513–530; Zaheer, A., McEvily, B., & Perrone, V. 1998. Exploring the effects of interorganizational and interpersonal trust on performance. *Organization Science*, 9: 141–159. (3) **social exchange**: Blau, P. 1986. *Exchange and power in social life*. New Brunswick, NJ: Transaction Publishers; Coleman, J. S. 1990. *Foundations of social theory*. Cambridge, MA: Belknap Press of Harvard University Press; Fiske, A. 1991. *Structures of social life: The four elementary forms of human relations*. New York: Free Press. (4) **organizational knowledge/learning**: Allen, T. 1977. *Managing the flow of technology*. Cambridge, MA: MIT Press; Brown, J. S., & Duguid, P. 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning and innovation. *Organization Science*, 2: 40–57; Hansen, M. T. 1999. The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44: 82–111; Lave, J., & Wenger, E. 1991. *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press; Szulanski, G. 1996. Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17(Winter): 27–43; Wenger, E. 1998. *Communities of practice*. Oxford, UK: Oxford University Press.

²¹ Whitener, E., et al. 1998. Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23: 513–530.

²² For behaviors leading to trust in management, Whitener and her colleagues (1998: 516) identify one additional trust-promoting behavior: behavioral consistency—i.e., the predictability and reliability of actions based on past actions. Although we did not find any evidence for (or against) this in our interviews concerning trust for knowledge exchange, we would leave open the possibility that it may promote greater trust within the knowledge domain as well.

²³ While Whitener and her colleagues (1998) also propose that organizational structure (e.g., centralization, hierarchy) will have an important impact on trust in management, we did not find any evidence for (or against) this in our interviews concerning trust for knowledge exchange—perhaps because management structure is more salient for trust in management than it is for trust in people at work in general. We also note here that behaviors #5 to #7 are practices designed to raise the general level of trust among everyone in the organization, whereas the other seven trust builders identified by our interviews are behaviors that would affect a specific two-party relationship more directly.

²⁴ Giving away something of value—usually of value to both parties—is a behavior that people do based on their relationship expectations; i.e., that trust will be reciprocated. While the trust-in-management framework by Whitener and her colleagues (1998: 521) does include relationship expectations such as this, it does not include one of the relational behaviors identified in our interviews: specifically, the idea of stepping out of your role at work when appropriate. This difference may be due to the possibility that trust in management is more commonly limited to work-related interactions, whereas trust in knowledge sources is more likely to include the option of non-work communication as well.

²⁵ Whitener and her colleagues (1998: 522–523) identify three individual factors that may promote trust. One is a person's propensity to trust. We have not included this element here, however, because it has been conceptualized as a disposition and so—in practice—it is not something managers are likely to be able to change. Two is a person's values (especially selflessness). Since our main focus in this article is on behavior and not

values, we have not included this factor explicitly, although we do note that people who value selflessness are more likely to give away to others something of value (our ninth behavior). Third is a person's self-efficacy, since research finds that people who lack confidence in their own competence have trouble establishing trusting relationships. We relate this point to our tenth behavior—disclose your expertise and limitations—because part of establishing confidence in one's own competence (self-efficacy), we have found in our interviews, is knowing the boundaries and limitations of one's own expertise. Moreover, self-efficacy is also likely to make people more willing to disclose this information.

²⁶ Butler, J. K., Jr. 1991. Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory. *Journal of Management*, 17: 643–663.

²⁷ Simmons, T. 2002. Behavioral integrity: The perceived alignment between manager's words and deeds as a research focus. *Organization Science*, 13: 18–35; Whitener, E., Brodt, S., Korsgaard, A., & Werner, J. 1998. Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23: 513–530.

²⁸ While frequent communication (i.e., having a “strong” tie) is a powerful trust builder, it can also decrease learning over time, since your strong ties often know the same things that you do. In contrast, “weak” ties are good at providing novel information (Granovetter, M. 1973. The strength of weak ties. *American Journal of Sociology*, 78: 1360–1380), and they also take less effort to sustain over time (Hansen, M. T. 1999. The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44: 82–111). Interestingly, one recent study found that the most useful knowledge of all comes from *trusted weak ties*—people you do not know very well but whom you trust to be benevolent and competent (Levin, D., & Cross, R. [in press]. The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. *Management Science*). Consistent with this finding, the other nine trust builders in Table 1 can be applied even when people do not know each other or do not communicate frequently.

²⁹ Saegert, S., Swap, W., & Zajonc, R. B. 1973. Exposure, context, and interpersonal attraction. *Journal of Personality & Social Psychology*, 25: 234–242; Zajonc, R. B. 1968. Attitudinal effects of mere exposure. *Journal of Personality & Social Psychology*, 9: 1–27.

³⁰ O'Reilly, C., & Roberts, K. 1976. Relationships among components of credibility and communication behavior in work units. *Journal of Applied Psychology*, 61: 99–102; McAllister, D. J. 1995. Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38: 24–59; Becerra, M., & Gupta, A. 2003. Perceived trustworthiness within the organization: The moderating impact of communication frequency on trustor and trustee effects. *Organization Science*, 14: 32–44.

³¹ Brown, T., & Iverson, K. The art of keeping management simple: An interview with Ken Iverson of Nucor Steel. *Harvard Management Update* (May 1988).

³² Because sharing and listening are reciprocal behaviors in knowledge-seeking interactions that promote trust, we have combined them here and have added the idea of “engagement” as well. John K. Butler, Jr., in his 1991 article, “Toward understanding and measuring conditions of trust: Evolution of a conditions of trust inventory” (*Journal of Management*, 17: 643–663), identifies two trust builders consistent with collaborative com-

munication: receptivity (i.e., being a good listener) and openness (i.e., sharing one's thoughts and information).

³³ Whitener, E., et al. 1998. Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23: 513–530; Korsgaard, A., Brodt, S., & Whitener, E. 2002. Trust in the face of conflict: The role of managerial trustworthy behavior and organizational context. *Journal of Applied Psychology*, 87: 312–319.

³⁴ Heider, F. 1958. *The psychology of interpersonal relations*. New York: John Wiley; Gilovich, T. 1991. *How we know what isn't so: The fallibility of human reason in everyday life*. New York: Free Press.

³⁵ Brockner, J., et al. 1997. When trust matters: The moderating effect of outcome favorability. *Administrative Science Quarterly*, 42: 558–583.

³⁶ This quote is from p. 520 of the article, “Managers as initiators of trust: An exchange relationship for understanding managerial trustworthy behavior” by Whitener, E., et al. 1998, *Academy of Management Review*, 23: 513–530. The research to which Whitener, et al., are referring includes two studies: (1) Folger, R., & Konovsky, M. A. 1989. Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal*, 32: 115–130; and (2) Korsgaard, M. A., & Roberson, L. 1995. Procedural justice in performance evaluation. *Journal of Management*, 21: 657–699.

³⁷ Tsai, W., & Ghoshal, S. 1998. Social capital and value creation: The role of intrafirm networks. *Academy of Management Journal*, 41: 464–476.

³⁸ Argyres, N. S. 1999. The impact of information technology on coordination: Evidence from the B-2 “stealth” bomber. *Organization Science*, 10: 162–180; Dougherty, D. 1992. Interpretive barriers to successful product innovation in large firms. *Organization Science*, 3: 179–202; Levin, D. Z. 1999. *Transferring knowledge within the organization in the R&D arena*. Ph.D. dissertation, Northwestern University.

³⁹ Locke, E. A., & Latham, G. P. 1990. *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall; Luthans, F., & Stajkovic, A. D. 1999. Reinforce for performance: The need to go beyond pay and even rewards. *The Academy of Management Executive*, 13 (2): 49–57; Whitener, E., et al., op. cit.

⁴⁰ Katz, D., & Kahn, R. L. 1978. *The social psychology of organizations*, 2nd ed. New York: Wiley; Barley, S. R. 1986. Technology as an occasion for structuring: Evidence from observations of CT scanners and the social order of radiology departments. *Administrative Science Quarterly*, 31: 78–108; Barley, S. R. 1990. The alignment of technology and structure through roles and networks. *Administrative Science Quarterly*, 35: 61–103; Montgomery, J. D. 1998. Toward a role-theoretic conception of embeddedness. *American Journal of Sociology*, 104: 92–125.

⁴¹ Blau, P. 1986. *Exchange and power in social life*. New Brunswick, NJ: Transaction Publishers, 8.

⁴² Coleman, J. S. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, 94 (Supplement): S95–S120; Fukuyama, F. 1995. *Trust: The social virtues and the creation of prosperity*. New York: Free Press.

⁴³ Wegner, D. M. 1986. Transactive memory: A contemporary analysis of the group mind. In B. Mullen & G. R. Goethals (Eds.), *Theories of group behavior* (pp. 185–208). Hillsdale, NJ: Lawrence Erlbaum Associates; Liang, D. W., Moreland, R., & Argote, L. 1995. Group versus individual training and group performance: The mediating factor of transactive memory. *Personality & Social Psychology Bulletin*, 21: 384–393.



Lisa Abrams is the Learning Lead for the Americas Communications Sector at IBM Global Services. She holds master's degrees from MIT Sloan School of Management and Columbia University School of International and Public Affairs. Her research interests include the intersection of knowledge management and learning and development, and creating the conditions for trust and knowledge sharing in both face-to-face and virtual environments. Contact: labrums@us.ibm.com.



Rob Cross is an assistant professor at the University of Virginia's McIntire School of Commerce. His research on networks has been published in top scholarly and practitioner outlets such as *Harvard Business Review*, *Sloan Management Review*, *California Management Review*, and *Organizational Dynamics*. He is also author of the forthcoming book *The Hidden Power of Social Networks* from HBS Press. Contact: robcross@virginia.edu.



Eric Lesser is an Associate Partner with IBM's Institute for Business Value. He leads the Knowledge and Organizational Performance Forum, a multi-company consortium focused on knowledge and human capital issues. He has published numerous articles and edited three books on knowledge, social capital, and communities. He received his MBA from the Goizueta School of Business at Emory University. Contact: elesser@us.ibm.com.



Daniel Z. Levin is an assistant professor at Rutgers Business School—Newark and New Brunswick. He received his Ph.D. at Northwestern University's Kellogg Graduate School of Management. His research focuses on organizational learning and knowledge transfer, including the role of social networks and trust. He has published articles on these topics in *Organization Science*, *Management Science*, and elsewhere. Contact: levin@business.rutgers.edu.

Copyright of Academy of Management Executive is the property of Academy of Management and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.