

Network-Based Leadership Development: A Guiding Framework and Resources for Management Educators

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Abstract

Management education and leadership development has traditionally focused on improving human capital (i.e., knowledge, skills, and abilities). Social capital, networks, and networking skills have received less attention. When this content has been incorporated into learning and development experiences, it has often been more ad hoc and has overlooked how gender affects individuals' ability to build and use networks effectively. To address these limitations, we present a three-step framework designed to guide management educators in helping others to (1) address misconceptions they have about networks and networking, (2) learn whether their current network is effective, and (3) identify networking strategies they can use to change their network and improve its effectiveness. In each stage, we discuss challenges that both men and women face and identify challenges that are particularly salient for women. Beyond providing this framework as a guide for incorporating networks, networking, and social capital into leadership

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development, we offer resources management educators can use at each step to create positive learning and development experiences. Finally, we discuss specific considerations for implementing network-based leadership development in women's only and mixed gender courses and leadership development programs.

Keywords

gender issues, leadership, social capital

Work in organizations often happens outside of formal channels. These informal relationships enhance employees' ability to communicate, collaborate, and influence across internal silos and external boundaries (Burt, 1992, 1998; Krackhardt & Hanson, 1993). These connections create a network that provides access to information, support, and other resources needed to accomplish current work, exert strategic influence, and progress in one's career (Brass, 1985; Podolny & Baron, 1997). As such, individuals need to develop and use their network to achieve their own professional goals and to enhance their organization's success.

Historically, development efforts have focused on improving individuals' knowledge, skills, and abilities. However, the field has increasingly viewed the ability to develop relationships as an important leadership competency (Gentry & Leslie, 2007; McCallum & O'Connell, 2009), specifically calling for improving networking skills and networks as part of leadership development (Galli, & Müller-Stewens, 2012; Day, 2001). *Networking* refers to behaviors used to create and manage a system of social connections that provide access to resources for the mutual benefit of oneself and others (Byrum-Robinson, & Womeldorff, 1990). As we describe later, networking behaviors consist of actions intended to build, maintain, leverage, and transition relationships. An individual's *network* accrues from these behaviors and consists of the relationships in which a person is embedded. *Social capital* constitutes the resources available to an individual through their relationships (Brass, 2012). Initial research suggests that managers who learn the properties of an effective network achieve greater performance and career advancement (Burt & Ronchi, 2007). However, attempts to integrate this content into leadership development have not taken a comprehensive approach and have largely ignored the role of gender (see van Buren & Hood, 2011, for an exception).

To have a greater impact, we propose that management educators¹ must first address students' misconceptions about networks and networking, then help them understand what makes an effective network and whether they have one, and finally offer specific networking strategies that are

useful for achieving their work/career goals. As such, we provide this three-step framework, based on existing theory, research, and practice, to help management educators incorporate network content into management courses and leadership development programs. By translating existing theory on networks (e.g., Borgatti & Halgin, 2011) and gender (e.g., social role theory; Eagly, 1987) into a guiding framework that management educators can use to teach students how to improve and use their networks, we make an important conceptual contribution to the management education and leadership development literatures. Furthermore, this framework and the accompanying readings, assessments, and activities will make it easier for management educators to answer calls for incorporating networking skills, networks, and social capital into their courses and leadership development programs. We also make a separate contribution to the rather limited research on networking strategies by conducting a survey to identify strategies people use and find to be effective. This research provides initial evidence regarding the perceived effectiveness of different networking strategies, allowing management educators to provide their students with more specific strategies that others have found to be useful for achieving their work/career goals.

Despite the strides organizations have made in reducing overt, intentional forms of discrimination, there are subtle, pervasive, acculturated beliefs that remain, which impede women's careers (Sturm, 2001). As such, management educators should address gender differences when covering networking, networks, and social capital. In many ways men and women build similar networks; however, women often have more difficulty developing certain types of strategic network connections (e.g., relationships with senior leaders; Ely, 1994). Furthermore, some network positions that are beneficial for men can actually be detrimental for women (e.g., brokerage positions; Burt, 1998). In this article, we discuss challenges individuals face building and using their network regardless of their gender, and challenges that are particularly troublesome for women. Information about gender differences is important for management educators to share so both men and women can become positive sources of change in their organizations and women can learn strategies to improve their odds of success. This awareness is valuable to people at all organizational levels, but especially for those in positions of power and authority. Because both men and women need to be aware of the challenges women uniquely face in developing their network, we discuss how this framework can be implemented in women's only and mixed gender leadership development programs.

Guiding Framework

Many relationships develop naturally or “spontaneously” because individuals are in close physical proximity, have similar characteristics or interests, or are part of the same social circle (e.g., organizational unit). However, relationships that form naturally do not necessarily create an effective network. Instead, individuals must purposefully form and maintain relationships for the benefit of themselves and their organization (Uzzi, 2008). We present a framework to help management educators design and deliver better classes and leadership development programs that enhance leadership capacity by incorporating networking, networks, and social capital. This framework consists of three steps: (1) addressing misconceptions about networks and networking, (2) understanding and assessing the effectiveness of individuals’ current network, and (3) identifying strategies to change individuals’ network to help improve career advancement, strategic influence, and current job effectiveness. Next, we describe each step in detail, including information that is essential to cover and where gender differences exist.

Step 1: Addressing Misconceptions Regarding Networks and Networking

Despite the clear benefits of networking for individuals and organizations, many people resist engaging in strategic, purposeful networking (Casciaro, Gino, & Kouchaki, 2014; de Janasz & Forret, 2008). This resistance is often related to a number of common misconceptions. Addressing these misconceptions is an essential first step for management educators who want to prepare others to assess and change their network. In Table 1, we provide readings, assessments, and activities that can be used to help shift negative mindsets regarding networks and networking. These misconceptions are not limited to one gender, but some impact women more than men. For example, although many people fail to recognize the importance of networking, research suggests that women particularly underestimate its importance (Hewlett, 2013) and rely on *what* they know more than *who* they know (van Emmerik, 2006). Helping everyone, but especially women, address these misconceptions is important because networking is considered crucial for breaking through the glass ceiling (Wellington, Kropft, & Gerkovich, 2003). In the remainder of this section, we discuss four common misconceptions: (1) networking is sleazy, (2) networking is inauthentic, (3) there is no time to network, and (4) a bigger network is a better network.

Table 1. Resources for Addressing Misconceptions About Networks and Networking.

Resource description	Recommended use
<p><i>Teaching executives to see social capital:</i> Burt and Ronchi (2007) describe an interesting study on the long-term benefits of learning the structural characteristics of an effective network.</p> <p><i>How networking can make us feel dirty:</i> Casciaro et al. (2014) provide an in-depth look at how professional networking makes people feel and what separates people who do and do not feel dirty or guilty when engaging in networking.</p> <p><i>The power of reconnection:</i> Levin, Walter, and Murnighan (2011a) describe the power of deep relationships, including that it is okay to let relationships become dormant because relationships that were deep can be activated again.</p> <p><i>Networked:</i> Rainie and Wellman (2012) provide a comprehensive summary of research on network size. They offer clear information on the upper limit of individuals' social connections, the types of people that are in individuals' networks, and the impact of modern technology on network size.</p>	<p>Readings</p> <p>This reading explains why networks are important and what makes a network effective. It is a succinct course reading for students; however, consider providing professionals with a single summary slide.</p> <p>This reading can be used to address why some people feel networking is sleazy and self-serving. It discusses the psychological impact of networking and how people can feel less dirty or guilty. This is a good reading for students, but for professionals a summary by Nobel (2015) may work better.</p> <p>This reading can be used to address the misconception that <i>networking takes too much time</i> and the notion that relationships "lost" cannot become active again. Management educators should consider pairing this reading with the <i>Reaching Out to Dormant Ties</i> activity.</p> <p>This reading can be used to address the bigger is better misconception. It also is useful when facilitating a discussion about how technology is changing who, how, and how many people individuals connect with.</p>
<p><i>What's your networking tendency?</i> Are you a giver, matcher, or taker? Grant (2013) helps individuals determine how they network with others. Students can take a self-assessment or 360-assessment (Grant, 2015). Students create an account to access the assessments and are provided with an introduction to these different types of networking styles.</p>	<p>Assessments and Activities</p> <p>This activity is useful to use to address the misconception that <i>networking is sleazy or self-serving</i>. These assessments could be used as an out of class activity and the results could be discussed in small or large groups. As with other 360s, it is essential to create a safe environment where people make sense of their data and provide resources on how they can make changes to their networking tendency.</p>

(continued)

Table 1. (continued)

Resource description	Recommended use
<p><i>Effective network discussion:</i> By beginning class with a question like, “What experiences do you have with relationships that help you be successful at work?” Management educators can help people see networking more positively, reflect on how they have built relationships, and understand how networking benefits their team and organization.</p> <p><i>Build networks authentically:</i> Chavez and Green (2010) describe a three-step process that can help individuals be more authentic when building relationships: (1) identifying a role model authentic leader, (2) reflecting on how authentic your networking has been in the past, and (3) creating an action plan to create more authentic connections.</p> <p><i>Feed forward:</i> This exercise (Marshall, 2002) gives students a quick, nonthreatening experience with networking. Students identify a behavior that they would like to change (e.g., I want to provide better feedback to my teammate) and have one-on-one conversations with a series of other people who provide two suggestions on how they can change that behavior in the future.</p> <p><i>Speed networking:</i> This activity gives students a quick, fun experience with networking without the feeling of guilt or that it takes too much time. Chavez and Green (2010) provide an activity, resources, and a process for students to quickly meet each other, learn about their work challenges and provide information, resources, and contacts to help solve that issue.</p> <p><i>Reaching out to dormant ties:</i> Repeating the experiment conducted by Levin, Walter, and Murnighan (2011b) is an engaging and simple way to reconnect professionally with someone from the past. Students are likely to experience similar outcomes to those reported in the study, including novel and useful advice from a dormant tie, plus the good feeling of reconnecting.</p>	<p>Pair this activity with reading Casciaro et al. (2014) to address the misconception that <i>networking is sleazy or self-serving</i>. Students connect their own experiences with empirical research and discuss the positive and negative aspects of networking in small groups. Then the instructor can lead a larger group discussion to ensure that all students have heard about the benefits of networking.</p> <p>These activities can be used to help address the misconception that <i>networking feels inauthentic</i>. They are designed to help students feel more authentic when engaging in networking and take approximately an hour to complete. There were designed for professionals and should be adapted slightly when used with students.</p> <p>This activity can be used to help address the misconception that there is <i>no time for networking</i>. After students have discussed their own beliefs about networking, management educators can use this exercise to help students realize that developing an initial connection can be easy and require little time. After completing the exercise the class can discuss how they felt during the experience. Most people report feeling positive and energized. This activity can be used to help address the misconception that there is <i>no time for networking</i> or that <i>networking is sleazy and self-serving</i>. It is useful to use prior to discussing networking. A debrief around how this made students feel is a great conclusion and a way to begin discussing what misconceptions individuals have about networking.</p> <p>This activity can be used to help address the misconception that a <i>bigger network is better</i>. It is best used as an out of class activity between in-person sessions. Provide at least 2 weeks between when you set up the activity and discussing students’ experiences in class so that there is enough time for students to make a reconnection. This discussion can focus on students’ thoughts, feelings, and how they benefited from the experience.</p>

Networking Is Sleazy. Many people view networking as self-serving, insincere, or manipulative (de Janasz & Forret, 2008) and are unlikely to engage in these behaviors (Wanberg, Kanfer, & Banas, 2000). Networking to pursue professional goals can make people feel morally impure or “dirty” because these activities are meant to benefit themselves (Casciaro et al., 2014; Casciaro & Lobo, 2005). Some research suggests that women are reluctant to engage in networking because they feel like they are using people to get ahead (Ely, Stone, & Ammerman, 2014; Korkki, 2011). Recent research suggests that people in powerful positions (e.g., higher organizations levels) do not experience the same degree of dirtiness when networking because they feel that they can reciprocate anything they receive (Casciaro et al., 2014). Thus, power differentials may at least partially explain why many women experience networking as dirty. These feelings may change as women gain access to powerful organizational positions or recognize the value they can provide others.

Research suggests that men are less likely than women to distinguish between colleagues and friends and are more willing to leverage both types of relationships (Doyle-Morris, 2009; Grief, 2009). Alternatively, women are “happy putting favors into others’ bank, but they’re squeamish about cashing in on those deposits” (Hewlett, Peraino, Sherbin, & Sumberg, 2010, p. 2). When women recognize that networking is about developing relationships that provide mutual benefit, they are often very successful at networking (Hewlett et al., 2010) and do not feel guilty for leveraging their network. Management educators can help individuals understand that networking helps them and the organization by improving their institutional knowledge, span of influence, and ability to help others develop their own networks (Ibarra & Hunter, 2007).

Networking Is Inauthentic. Networking is unnatural or uncomfortable for many people. Introverts and individuals with lower levels of self-esteem tend to find networking intimidating, while extraverted and self-assured individuals feel more comfortable (Forret & Dougherty, 2004; Wanberg et al., 2000). Networking can feel inauthentic to women because they are often not interested in traditional networking activities (e.g., playing golf; Ely, Ibarra, & Kolb, 2011). However, this challenge also affects men who do not share the same interests as those with whom they are trying to network. Although many traditional opportunities for networking in organizations remain (e.g., happy hours, golf outings), people are connecting in increasingly diverse ways (e.g., book clubs, parent groups, health facilities, exercises classes and organized sports, volunteer groups). The increased breadth of activities may make it easier for individuals to connect with others through truly shared interests,

helping them to maintain feelings of authenticity. Furthermore, regardless of their natural inclinations, individuals can learn to network effectively through education, practice, and feedback (Ely et al., 2011). Management educators can help individuals develop confidence in their social skills and become more at ease when networking (de Janasz & Forret, 2008).

There Is No Time. Women have traditionally been reluctant to engage in networking because they feel they cannot possibly fit extra activities into their already busy schedule (Ely et al., 2011). Networking is the first activity women abandon to meet work and family responsibilities (Eagly & Carli, 2007), yet valuable connections are even more important for people with time constraints (Hewlett et al., 2010). Building and maintaining relationships requires an investment, but networking does not need to involve attending happy hours, conferences, networking events, or other extracurricular activities that may detract from work or impinge on personal life. Many forms of networking can be incorporated into the workday (e.g., meeting over a coffee break or lunch, volunteering for a cross-functional team or new assignment). People often prefer to meet during work hours or plan interactions in advance to arrange their own commitments (Hewlett et al., 2010). There are also more networking events taking place at various days and times, giving individuals better scheduling options (Misner, Walker, & De Raffe, 2012). Men and women seeking work-life balance are both concerned with this issue, increasing the understanding and willingness of people to accommodate those with time constraints (Groysberg & Abrahams, 2014). Management educators can help shift this mindset by helping men and women see how networking can be integrated into daily activities to enhance, as opposed to detract, from workplace effectiveness and reduce the impact on life outside of work (Wellington et al., 2003).

Bigger Is Better. A final common misconception is the notion that a bigger network is a better network. It is true that network contacts provide valuable information and resources and thus, to a certain extent, having more contacts is better. Well-connected individuals have access to more information, opportunities, and other resources and are more likely to be opinion leaders and generally powerful and influential (Borgatti, Everett, & Johnson, 2013). However, individuals cannot endlessly develop more network contacts and keep track of them to any meaningful extent (Dunbar, 1992). As such, individuals should not simply build larger networks but instead develop effective networks. More important than the size of a network is its structure and the resources that structure provides. Unfortunately, most people do not understand what constitutes an effective network (Trefalt, 2014). In Step 2, we

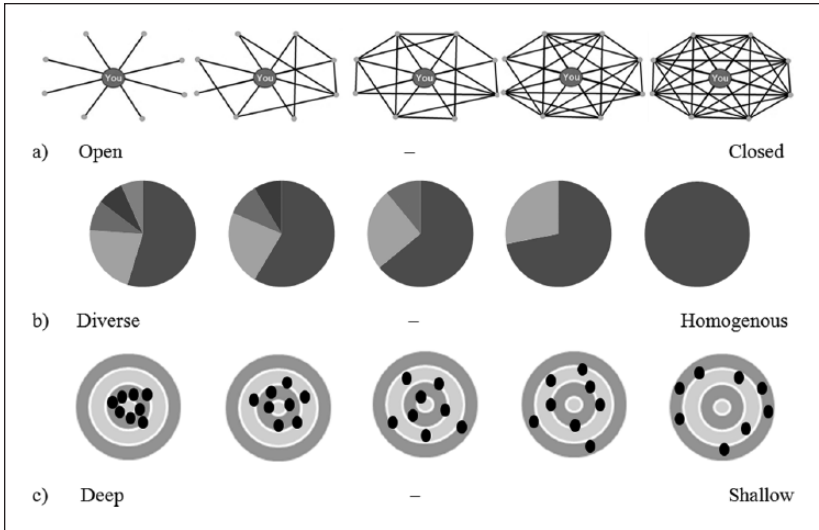


Figure 1. Visual depictions to help management educators begin discussions about their students’ network openness, diversity, and depth.

describe the structure of an effective network so management educators can help others understand and assess their network before identifying strategies they need to make changes to their network.

Step 2: Understanding Effective Networks and Assessing Network Structure

After tackling misconceptions related to networks and networking, it is important for management educators to help students understand what an effective network looks like and how it will benefit them. An ideal network structure is open, diverse, and deep enough to provide access to a variety of resources. In our experience, people tend to think about their relationships with specific people and not the overall structure of their network. We provide management educators with Figure 1, which illustrates the three aspects of network structure, to help students begin to think about their network as a whole. Management educators should also help students assess their current network in order to determine what changes they need to make to increase its effectiveness. In Table 2, we provide readings, assessments, and activities that can be used to learn about and assess an individual’s network structure.

Table 2. Resources for Learning About Effective Networks and Assessing Current Network Structure.

Resource description	Recommended use
Readings	
<p><i>What makes an effective network leader:</i> Willburn and Cullen (2014) provide a practical overview of what makes an effective network (open, deep, diverse) plus a discussion of common network traps leaders face at different stages in their careers.</p> <p><i>How leaders create and use networks:</i> Barra and Hunter (2007) provide a great introduction to the resources that are provided by an effective network. They describe three key resources: operational, personal, and strategic. They also describe a process for becoming more effective at networking.</p> <p><i>How to build your network:</i> Uzzi and Dunlap (2005) compare open and closed networks and describe the benefits of being a broker. They provide two illustrative examples of leaders in organizations and a short exercise for students to map their networks to identify their key brokerage roles.</p> <p><i>Why brokers are the most successful networkers:</i> Burt (2002) provides a broad overview of social capital, structural holes, and the value of bridging with a more detailed description of the empirical evidence supporting the benefit of being a broker and bridging structural holes.</p> <p><i>How star women build portable networks:</i> Groysberg (2008) identifies biases women face when attempting to build networks in their organization. Many star women build networks that enable them to gain great jobs externally and succeed in their new position/organization to compensate for the biases they face in their own organization.</p>	<p>This reading helps individuals understand the structure of an effective network. It is ideal for working professionals, MBA students, or organizational leaders. It is also useful for students who are analyzing their own network.</p> <p>This reading can be used to introduce what makes an effective network, highlighting that it is not just about structure, but also having the appropriate resources. After reading this article students can engage in an activity to identify whether they currently have the resources they need from their network.</p> <p>This reading is useful for introducing the importance of having an open network (i.e., one aspect of an effective network). Management educators can use this paper to introduce students to the concept of brokering.</p> <p>This reading is useful for introducing the importance of having an open network. It can be used as a reading for MBA students, but for professionals a more accessible summary by Simmons (2015) may be useful.</p> <p>This reading introduces the importance of having an effective external network. It is excellent for programs involving both women and men because it identifies networking-related gender challenges while presenting women in a positive light and identifies ways to address gender bias in organizations.</p>

(continued)

Table 2. (continued)

Resource description	Recommended use
<p><i>Teaching experiential on network structure:</i> Trefalt (2014) describes a simple simulation activity that helps people understand how the properties of their network affect their ability to gain resources. It also helps change people's mindset that networking is selfish and opportunistic by demonstrating the benefits of networking and the power of reciprocity.</p>	<p>Assessments and activities This simulation can be used to help individuals understand the connection between network structure and resource availability. It can be used in general management courses or integrated organizational change and executive education modules on networking. It is best to use after students have discussed their beliefs about networking.</p>
<p><i>Leader network diagnostic:</i> Willburn (2010) created a paper-based network diagnostic that examines an individual's core-professional network up to 15 people. It will help individuals examine how open, deep, and diverse their own networks are.</p>	<p>Students can use this assessment to examine their current core professional network. Management educators should teach students about the structure of an effective network and help them examine their own network. The process of taking the assessment is just as important as the result because it provides students with the opportunity to systematically think through their network.</p>
<p><i>Heidi Roizen case study:</i> Tempest and McGinn's (2000) case study requires students to make choices regarding effective network structures. Discussions about gender bias can be integrated using the accompanying teaching note's suggestions and a video with Heidi Roizen (Stanford Graduate School of Business, 2009).</p>	<p>This case can be used to help individuals understand the structure of an effective network while also tying in discussions regarding whether networking is sleazy and self-serving and why networking feels inauthentic. Networking strategies are also covered, thus, this case may also be a valuable way to conclude teaching this framework.</p>
<p><i>Network assessment exercise:</i> This is a paper-based network diagnostic that examines a professional's or a student's network (Ibarra, 2002, 2008). It provides a guide on how to determine who is in the network, how close they are, and the density of the network.</p>	<p>Students can use this assessment to examine their current network. Instructions are self-explanatory, but management educators must provide sufficient information for students to make sense of the results when using this assessment.</p>

(continued)

Table 2. (continued)

Resource description	Recommended use
<p><i>Online professional network assessment:</i> This online individual network assessment examines three areas: structure, composition, and focus (e.g., internal, external; Baker, 2000a, 2000b). It provides customized recommendations on the different areas and a nice visual and analysis of network constraints, opportunities, and choices.</p>	<p>Students can use this assessment to examine their current network. Students or the instructor can print and review the report after students take the assessment. Management educators should reinforce what makes an effective network and connect what is taught in their course to the language used in the assessment.</p>
<p><i>Online professional social capital assessment:</i> This online individual network assessment (Gargiulo, 2002) is designed for managers and examines three areas: breadth, depth, and structure (Gargiulo & Benassi, 2000). It provides a nice summary of the social capital benefits sparse, dense, and centralized networks each provide.</p>	<p>Students can use this assessment to examine their current network. Students can print and review their own reports after taking the assessment. Management educators should reinforce what makes an effective network and connect what is taught in their course to the language used in the assessment.</p>
<p><i>LinkedIn social network visualization, analysis, and education:</i> This quick online network assessment (Tutterow, 2013) examines a person's LinkedIn network (up to 500 contacts) and provides feedback on key network measures: absolute size, effective size, network constraint, density, hierarchy, and betweenness. It also provides comparative data (of other linked in users who have used this tool) and a downloadable CSV file of the individuals own data.</p>	<p>Students can use this assessment to examine their current LinkedIn network. Management educators must provide information on what each measure means so that students can and interpret their results. The LinkedIn network diagram and data can also be used to facilitate discussions about how individuals' careers have developed. Clusters in these diagrams tend to represent contacts at different point in a person's career (e.g., college, first job, etc.).</p>

Open and Diverse Networks. The structure of an individual's networks varies on a continuum from open to closed. The difference can be seen in the visual network scale (Mehra et al., 2014) depicted in Figure 1A. In an open network, an individual's contacts are not well-connected to each other. In a closed network, an individual's contacts share information and resources.

People with open networks are called brokers because they connect people (or groups of people) who are not connected to each other, providing them with access to unique information, knowledge, and resources that others do not have (Burt, 1992). Brokers are also in a position to manage how that information is shared. Specifically, they can quickly glean information from difficult to access parts of an organization or industry and translate what they learn from one group in a way that another group can understand and use. They are also in a powerful negotiating position because their contacts do not share information. For these reasons, compared with similar others, individuals with a more open network are thought to have an advantage (Burt, 1992) and tend to receive better performance ratings and more promotions (Burt, 2004, 2005).

Unlike an open network, individuals who have a closed network live in a social world in which everyone knows everyone else. There is high accountability, trust, and identity among people in a closed network because information is widely shared, everyone can monitor each other, and strong norms about appropriate behavior develop (Coleman, 1990). For these reasons, some closure is beneficial among contacts who work closely (e.g., teams). However, when there is closure, people tend to think similarly and can have difficulty accessing new information and communicating effectively with other groups. Thus, it is important that networks are not completely insular (i.e., closed off) to ensure new ideas and resources are available.

Individuals with open networks have access to diverse information and resources because of their structural position. This diversity is also provided by developing relationships that cross boundaries. For example, developing relationships with people in different functional groups, management levels, geographic locations, and organizations provides access to a larger variety of resources than if all of a person's contacts are similar. Equally important, individuals benefit from having many different types of people in their network because they develop skills that allow them to translate information between their diverse contacts (Burt, Kilduff, & Tasselli, 2013). Management educators can use Figure 1B to help individuals think about the diversity of their network as ranging from homogenous, where all of their contacts are similar in terms of some important characteristic (e.g., gender, organizational department), to diverse, where their contacts come from a number of different groups.

Belonging to different social groups is one way to develop a diverse network (Uzzi, 2008), but substantial time and effort is required to fit into each group. Thus, an ideal approach to maintaining diverse contacts, while minimizing these drawbacks is to connect with people individually as well as within formal/informal groups (Shipilov, Labianca, Kalnysch, & Kalnysch, 2014). Furthermore, both men and women may feel pressure when linking disconnected groups (i.e., acting as a broker). In this position, individuals must manage tensions that can arise from diverse opinions, expectations, and social norms (Burt, 2005; Burt, Jannotta, & Mahoney, 1998).

Some research suggests that women may also face unique challenges capitalizing on these positions (Burt, 1998). Due to the active, assertive nature of brokering disconnected individuals and groups, as well as the ability for brokers to negotiate and control information and resources, brokers are commonly viewed as competent, decisive, assertive, and tough (i.e., *agentic*; Brands & Kilduff, 2013). While acting *agentic* within organizations can benefit both men and women, women are also expected to be warm, nice, friendly, generous, supportive, encouraging, and compassionate (i.e., *communal*; Eagly, 1987). Men and women who couple assertive behavior and competence with kindness, helpfulness, and warmth are the most highly sought after work partners (Casciaro & Lobo, 2005), have less negative reactions during interpersonal conflict (Ufkes, Otten, van der Zee, Giebels, & Dovidio, 2012), are most admired and offered help (Cuddy, Fiske, & Glick, 2007), and are able to gain central positions within informal networks (Eagly & Carli, 2007). However, men are viewed less negatively than women if they fail to pair their agency and competence with communion and warmth. Importantly, women who couple competence/agency with warmth are viewed as more influential (Burgoon, Birk, & Hall, 1991; Heilman & Okimoto, 2007) and have greater influence, including over men (Ridgeway & Smith-Lovin, 2006).

Balance of Deep Relationships and Acquaintances. Relationships span a continuum of strength from extremely close connections to weak acquaintances. Relationship strength is based on the frequency of contact, duration of the relationship, the number of different types of relationships shared (e.g., coworker, mentor, workout partner, happy hour friend), and the strength of the emotional bond (Granovetter, 1973). For example, individuals who are workplace friends that provide personal support to each other and colleagues that share work-related advice have a multiplex relationship and are closer than those who only have work- or friendship-based relationships. Building multiplex relationships is one way to maximize the benefits of each relationship and reduce the number of relationships a person needs to gain equivalent

resources (Oh, Chung, & Labianca, 2004). Women tend to develop fewer multiplex relationships than men because they often separate those they go to for friendship and personal support from those they go to for work-related matters (Ibarra, 1992). As mentioned previously, women are also hesitant to “use” their friends instrumentally (Hewlett et al., 2010). Not having multiplex relationships can be detrimental for women because people involved in strong multiplex relations are more motivated and capable of providing an increased variety of resources to each other (e.g., introductions to important individuals, task-related advice, strategic information, political influence, and emotional support; Oh et al., 2004). Individuals must rely on these close relationships when they need resources that are costly to provide—for example, when they need a favor that requires someone else to invest significant time and effort, to “stick their neck out” for them, or risk their reputation. Individuals also need to develop deep relationships with their sponsors and other high status individuals because they need these individuals to provide them with political support and career opportunities.

Research suggests that women struggle to form deep relationships with powerful, well-connected, and senior individuals (e.g., sponsors) for a number of reasons (Brass, 1985). First, because men still disproportionately occupy the top of organizational hierarchies and people have a preference for interacting with others who are similar to them, it is easier for men to form relationships with those at the top (Brass, 1985; Hewlett, 2013). Second, when there are few women at the top of an organization, research suggests that women at lower levels are less likely to perceive those senior women as role models with legitimate authority and do not attempt to develop close relationships with them (Ely, 1994). Third, women often mistake mentoring for sponsorship and thereby expect people who provide feedback and support to also look out for their careers and advocate for them (Ely et al., 2011). In fact, individuals need mentors and sponsors and must invest in developing sponsorship relationships with people who are often not their mentors. Fourth, women and men share concerns that close workplace relationships between people of opposite genders could be misconstrued as inappropriate, such as affairs (Hewlett et al., 2010). Management educators can help address some of these issues. For example, management educators can help people to change their mindsets about connecting with high ranking women and those of the opposite gender, including pointing out ways to make close cross-gender relationships more transparent and safe. In addition, they can teach the difference between mentorship and sponsorship, explaining that several mentors and sponsors are needed for career advancement. Management educators can also help students learn to better understand the people they want to connect with by identifying common interests.

The give and take of developing and maintaining strong personal connections requires substantial time, effort, and resource input, making it difficult to maintain a large network of close contacts. However, acquaintances expect less of an individual's time, effort, and resources and are less likely to become upset when interaction wanes, making it easier to maintain a large number of weak relationships. These connections are an efficient source when information and assistance is easy for the person to provide (Granovetter, 1973). Furthermore, it is also important to note that relationship strength and network openness are often related. Individuals are more likely to be connected to another person's close contacts when they have a deeper relationship with that person (i.e., a friend of a friend is a friend; Heider, 1946). As such, the benefits of having strong relationships are often diminished because they exist within the context of a closed network and thus tend to provide more homogeneous and redundant resources. Alternatively, acquaintances are more likely to be disconnected from an individual's other contacts, resulting in more open networks (rich in structural holes) that provide nonredundant resources. Of course, not all weak ties provide brokerage opportunities and not all strong ties are interconnected (Zhou, Shin, Brass, Choi, & Zhang, 2009). It is important to remember that relationship strength and an open network structure provide different benefits. Figure 1C provides a means for management educators to help individuals begin to think about the closeness of the contacts in their network: To what extent is their network deep (i.e., they have close contacts that are part of their inner circle) or shallow (they have many distant acquaintances)? It is important for individuals to have a balance of strong relationships, filled with the trust and motivation needed to obtain costly information/resources, and weak relationships, which likely provide access to novel information.

In summary, an effective network is open and diverse with a balance of deep relationships and acquaintances. Specifically, individuals with an effective network should have strong ties with sponsors and stakeholders who advocate for them (Ibarra & Hunter, 2007). Furthermore, individuals benefit from a relatively closed network of strong ties with teammates and significant collaborators, while they need to have a diverse network elsewhere, including friends and acquaintances that provide access to new ideas and information (Burt, 2004; Reagans, Zuckerman, & McEvily, 2004).

Step 3: Identifying Strategies to Change a Network and Improve Its Effectiveness

After management educators help individuals learn the properties of an effective network and assess their network structure, the type of changes individuals need to make are often clear. If they are not, management educators can

help students understand what they need to change in their networks by facilitating a two-part discussion. First, management educators should have students examine the current state of their own network and compare it to the effective network described previously. This will help them to identify the changes they need to make. Second, to help students identify how to make these changes, management educators should ask them about their primary goals and objectives, which often fall into one of three categories: improving their work effectiveness, gaining greater strategic influence, or progressing in their career.

A recent review of the networking literature (Porter & Woo, 2015) identified resources as a core mechanism through which networking behaviors facilitate effective outcomes. The effective network structure described previously provides opportunities to access a rich array of resources (i.e., operational, strategic, personal; Ibarra & Hunter, 2007). These resources differ in their usefulness for enhancing career advancement, strategic influence, and current job effectiveness. Therefore students must consider the type of resources they need to achieve their goal(s) when deciding which networking strategies they are going to use and who they are going to approach with that strategy (Wolff & Moser, 2009). Students who want to enhance their job effectiveness, should consider who can provide them with operational resources needed to help individuals accomplish their own work, enhance the functioning of their group, and keep present operations running smoothly. Alternatively, students who are more focused on career advancement may choose those who can help them gain strategic and personal resources. Strategic resources help individuals plan and make changes for the future by helping them identify priorities, anticipate future challenges, and gain the support of contacts who will influence others to support change (cf. Hill, 2007; Ibarra & Hunter, 2007). Career opportunities often go to those who are well-connected or sponsored (Hewlett, 2013). These people have contacts who provide strategic resources that help them to know what is going on in the organization and to hear about favorable opportunities (Burt, 1992) and personal resources that help them develop professionally and act as referrals (Ibarra & Hunter, 2007). Thus, individuals need key members of their organization to advocate for their advancement.

In sum, the resources individuals need from their network depend on the goal they are trying to achieve. Thus with students' primary goal(s) in mind, management educators can assist them in identifying which networking strategies will help them change their network in a way that will help them achieve their future goal(s) and who they should approach with those strategies. For instance, if a student needs to build new relationships to increase her network's openness and is focused on improving her current job effectiveness,

she should identify who to approach to gain operational resources and utilize relationship building strategies that improve job effectiveness. Unfortunately, despite a plethora of popular books, professional advice, and some academic articles on networking, scant empirical research exists regarding the effectiveness of networking strategies, especially with regard to achieving individuals' goals.

Strategies for changing an individual's network fall into four categories of networking: building a new connection, maintaining or deepening a relationship, leveraging a contact, and transitioning (or weakening) a relationship. In Table 3, we provide suggested readings, assessments, and activities that can be used by management educators to help individuals learn about and practice improving their networking skills. In the remainder of this section, we describe a survey we conducted to identify which types of networking strategies would be most useful for individuals to achieve their specific goals of improving career advancement, strategic influence, and current job effectiveness. This information may be used by management educators to suggest strategies others have found useful for meeting their students' specific goals.

Identifying Relevant Networking Strategies. To help address the need for empirically-based recommendations for networking strategies that management educators could use to advise their students, we drew on the existing literature and years of practice conducting network-based leadership development to create an initial list of strategies. The networking literature commonly discusses strategies designed to build and maintain networks, while strategies to leverage and transition relationships have received less attention (Ahuja, Soda, & Zaheer, 2012; Castro, Casanueva, & Galán, 2014; Cross & Thomas, 2008; Wolff & Moser, 2009). We organized the list of networking strategies we identified using these categories: building, maintaining, leveraging, and transitioning relationships.

Procedure and Sample Description. This list of networking strategies was sent as an online survey to the Center for Creative Leadership's Leading Insights Panel, which consists of senior leaders, managers, and professionals who have volunteered to participate in surveys. Respondents were first asked to identify which strategies they have used. Then they were asked to indicate whether each strategy they used was most effective for improving their career advancement, strategic influence or current job effectiveness, or alternatively that it was not an effective strategy.

We received responses from 262 participants from the United States and Canada who volunteered to complete this survey (131 men, 131 women). The large majority were from the United States (95.4%). Some participants chose

Table 3. Resources for Learning About and Practicing Networking Strategies.

Resource description	Recommended use
<p>A <i>smarter way to network</i>: Cross and Thomas (2011) provide a method for building a better network that includes analyzing, de-layering, diversifying, and capitalizing on networking strategies. This reading also provides a summary of common networking traps.</p>	<p>Readings This article can help individuals think about different types of <i>networking strategies</i> they can use to make changes to their networks. After reading this article, management educators can have students identify which network traps they relate to and steps they can take to make positive changes to their networks.</p>
<p><i>The panda and the peacock</i>: Grant (2013) provides a nice introduction to the power of networking through the strategy of generalized reciprocity in the second chapter of his book. He offers examples of different types of networking approaches and the upside and downside of each approach. He also discusses the role reputation plays in networking and offers a specific network strategy called the 5 minute favor.</p>	<p>Chapter 2 can be used to introduce students and professionals to <i>positive networking strategies</i>. It can be paired with a discussion activity by asking students to practice the <i>5 minute favor networking strategy</i> and then ask students about their experience. This resource may also help all individuals (and especially women) think about not only giving to, but also asking of their network connections.</p>
<p><i>Reconceptualizing mentoring at work</i>: Higgins and Kram (2001) describe the importance of focusing on different types of developmental relationships, which they call a developmental network. They describe a five-step process to create your own developmental network: (1) know thyself; (2) know your context; (3) enlist developers; (4) regularly reassess; and (5) develop others.</p>	<p>This article is useful for discussions on <i>networking for career advancement</i>. It provides a good outline of how to start networking for your own development and is best paired with the <i>Developmental Network Questionnaire</i>.</p>
<p><i>The relationship you need to get right</i>: Hewlett, Marshall, and Sherbin (2011) describe the roles of a sponsor and protégé and provide networking advice on how sponsors and protégés can find each other and be effective in their roles.</p>	<p>This article is useful in helping students learn how to <i>find a sponsor</i> and why it is important. It should be used with an activity in which students determine if they have a sponsor in their network and who (else) they should cultivate as a sponsor.</p>

(continued)

Table 3. (continued)

Resource description	Recommended use
<p><i>Assessment and activities</i></p> <p><i>Network assessment of your email life:</i> This online assessment (Smilkov, Jagdish, & Hidalgo, 2013) of a person's email network creates a connection between people if they were on the same email (To and CC). It can map email network data over time. It provides clean visualizations of what a person's email network looks, how top contacts have changed, and identifies emerging contacts.</p> <p><i>Professional networking on LinkedIn:</i> Gerard (2012) describes three assignments that will help students learn online professional networking skills on LinkedIn. These assignments focus on creating a profile, exploring and expanding the network, and reflecting on lessons learned.</p> <p><i>Helping leaders uncover hidden assets:</i> Colella (2010) describes a simple activity for finding network resources within a cohort using a method in which individuals ask for help around a strategic network opportunity and offer help to their colleagues in the program.</p> <p><i>The Developmental Network Questionnaire</i> (Higgins, 2004) is an instrument designed to reveal information about the sources of developmental assistance. This instrument provides directions on how to create a map of developmental relationships in your network and to analyze who is in your developmental network.</p>	<p>This assessment is good to pair with discussions of <i>transitioning and other networking strategies</i>. It can be used to determine whether individuals have been reactive (holding onto lots of old contacts) or proactive (exploring and reaching out to new contacts). Good discussion questions, including asking individuals to find examples of when they were a reactive and a proactive networker and explain why.</p> <p>This exercise is useful for thinking about <i>building and maintaining strategies</i>. It should be conducted as multiple modules so that students have time to explore LinkedIn on their own. It works best with students new to professional networking. However, Assignments 2 and 3 can be adapted for professionals with established LinkedIn profiles.</p> <p>This activity can be used to help individuals to identify and find resources within their network. This highly scalable exercise works well in leadership development programs from 15 to 125 students. It should be used after students understand their own network including what makes an effective network.</p> <p>This activity is useful to pair with previously mentioned readings on development relationships. After completing this reading, management educators may have students assess who is in their developmental network and facilitate a small group discussion about the benefit of the different types of relationships.</p>

(continued)

Table 3. (continued)

Resource description	Recommended use
<p><i>Learning the art of networking</i>: de Janasz and Forret (2008) offer four exercises aimed at increasing individuals' awareness and comfort with networking: (1) The handshake exercise, which is about impression management; (2) The career fair exercise, which is about selling your personal brand; (3) The networking simulation exercise, which is about leveraging resources; and (4) The Networking Quiz, which is about how much and with whom people are networking.</p> <p>The <i>Reciprocity ring</i> (Baker, 2007) is an exercise that enables a group of people to learn the principle of <i>pay it forward</i>. Students learn the power and practice of reciprocity. This exercise helps to build trust and find solutions to individuals' issues that require collaboration.</p>	<p>This is a good set of exercises to practice the skill of networking and is best used after the previous two stages of content have been discussed. These exercises may be used as a warm up to an official networking session or job/career fair. Management educators should choose the exercises that fit best with their students (e.g., executives inside organizations do not necessarily need to do the career fair exercise, but could work on impression management).</p> <p>This exercise is useful to demonstrate how to build relationships using reciprocity. It is most useful with a group from the same organization or industry who are not aware of the resources available among them. Using this exercise over time gives people multiple opportunities to help each other. There is also an online version which makes this more feasible.</p>
<p><i>Building student competency to develop power and influence through social capital</i>: van Buren and Hood (2011) describe an executive MBA course on social capital, power, and minority status, including a number of activities.</p>	<p>The tools and exercises (e.g., network assessment, networking simulation showing power differences) in this article are appropriate for MBA students and parts of these exercises could be adapted for professionals in the workplace.</p>
<p><i>Deepening relationships: Share but don't over share</i>: Page-Gould, Mendoza-Denton, and Tropp (2008) used a protocol that replicates the Fast Friends exercise developed by Aron, Melinat, Aron, Vaollone, and Bator (1997), which is designed to create strong bonds through mutual appropriate self-disclosure. The activity involves three sessions: two sessions of self-disclosure using sequential predetermined questions, and the third session is a paired game playing activity. All instructions available from Page-Gould, Mendoza-Denton, and Tropp (2005).</p>	<p>This activity teaches students how to create strong trusted dyadic bonds. In a corporate setting, it should be adapted by changing some of the questions and the third session where students play a game should be left out. This may be a networking exercise that feels especially authentic to women as they tend to build and strengthen relationships via self-disclosure, while men are much more likely to bond through activities (Mazur, 1989). Management educators can have students reflect on their experience of self-disclosure and how it builds trust.</p>

not to provide their age (31.3%), but of those that did, 30% were under 45, 46.7% were 45 to 54, and 23.3% were over 55. The organizations they worked for ranged in size (11.1% less than 100 employees, 26% 100-500 employees, 32.4% between 500 and 10,000 employees, and 30.5% more than 10,000 employees), focus (29.4% local, 23.7% national, and 46.9% international) and sector (corporate 50.4%, nonprofit 17.6%, government 10.3%, education 8.8%, and other 13%). Most respondents were directors or managers (52.3%), followed by professional staff, independent consultants, or other employees (17.6%), vice presidents (14.6%), and owners, CEOs, or presidents (14.5%).

Strategy Use. Networking strategies for building, maintaining, leveraging, and transitioning relationships are provided in Table 4. To determine which strategies were most commonly used, we calculated the percentage of respondents who indicated that they had used each strategy. This information is presented in the columns labeled *Strategy Use*, first for the overall sample (Total) and then for men and women separately. Percentages are based on the whole sample and are sorted within each category by the overall percentage of people who reported using the strategy (i.e., most commonly used listed at the top). In addition to presenting descriptive information to identify the most commonly used strategies, we conducted a series of chi-square tests to examine whether the proportion of men and women who used these strategies differed. Most strategies were used by a similar percentage of men and women; however there were a few significant gender differences. A larger percentage of women than men joined a mentoring program at work to build relationships ($\chi[1] = 4.96, p < .05$) and offered to connect people in their network to maintain their relationships ($\chi[1] = 7.01, p < .01$). A larger percentage of men than women arranged one-on-one time to talk ($\chi[1] = 5.67, p < .05$) and created a database of contacts ($\chi[1] = 8.37, p < .01$) to help them maintain their network. When attempting to leverage their network, a larger percentage of women than men asked a connection to recommend them for an opportunity at work ($\chi[1] = 6.32, p < .05$), while a larger percentage of men than women reached out to a colleague they infrequently talk with to get a fresh perspective ($\chi[1] = 7.39, p < .01$). To weaken relationships, a larger percentage of women than men used a recent transition as a reason to connect less ($\chi[1] = 4.02, p < .05$).

Strategy Effectiveness. Next we examined whether the strategies were perceived to be effective and if certain strategies were more effective for achieving different work/career goals. In the column labeled *Effectiveness*, we report the percentage of respondents who used a strategy and found that it was effective. This percentage was calculated by dividing the number of

Table 4. Use and Effectiveness for Building, Maintaining, Leveraging, and Transitioning Networking Strategies.

Strategy	Strategy use ^a			Effectiveness ^b			Most effective for ^c		
	Total	Male	Female	Total	Advancing career	Strategic influence	Current job		
Build									
Connecting via online social networking sites (e.g., LinkedIn)	50.4%	52.7%	48.1%	89.4%	21.2%	24.6%	54.2%		
Attending conferences and conventions	48.9%	53.4%	44.3%	97.7%	14.4%	24.0%	61.6%		
Attending formal networking or other workplace events	45.8%	45.0%	46.6%	95.0%	21.9%	29.9%	49.1%		
Volunteer for a new project or committee	40.8%	43.5%	38.2%	98.1%	32.4%	48.6%	19.0%		
Scheduling one-on-one meetings with people you want to meet	36.6%	38.9%	34.4%	99.0%	20.0%	47.4%	32.6%		
Asking people you know for an introduction	19.1%	20.6%	17.6%	90.0%	24.4%	40.0%	35.6%		
Finding a mentor	9.9%	9.2%	10.7%	100.0%	61.5%	34.6%	3.8%		
Finding someone to mentee	9.5%	7.6%	11.5%	92.0%	13.0%	60.9%	26.1%		
Joining a mentoring program at work	8.4%	4.6%	12.2%	86.4%	21.1%	68.4%	10.5%		
Maintain									
Offering advice, time, or resources to people.	63.7%	62.6%	64.89%	95.2%	13.2%	66.7%	20.1%		
Informing colleagues about articles, books, or upcoming activities of interest to them.	46.9%	47.3%	46.6%	88.6%	11.0%	63.3%	25.7%		

(continued)

Table 4. (continued)

Strategy	Strategy use ^a			Effectiveness ^b		Most effective for ^c		
	Total	Male	Female	Total		Advancing career	Strategic influence	Current job
Arranging one-on-one time to talk.	41.6%	48.9%	34.4%	99.1%		28.7%	48.1%	23.2%
Offering to connect people in your network.	40.1%	32.1%	48.1%	94.3%		10.1%	73.7%	16.2%
Building friendships with colleagues outside of work relationships.	35.1%	33.6%	36.6%	92.3%		31.8%	30.7%	37.5%
Scheduling periodic check-in calls.	23.3%	26.0%	20.6%	90.2%		32.7%	30.9%	36.4%
Sending thank you cards.	18.3%	16.8%	19.9%	97.9%		19.1%	57.5%	23.4%
Creating a database of contacts to help you keep track of your connections.	9.9%	15.3%	4.6%	92.3%		12.5%	33.3%	54.2%
Setting up small group activities.	6.9%	6.9%	6.9%	94.4%		0.0%	47.1%	52.9%
Leverage								
Asking for advice, time, or resources.	88.2%	86.3%	90.1%	97.0%		21.0%	24.6%	54.5%
Reaching out to any colleague you don't interact with frequently for a fresh perspective.	49.6%	58.0%	41.2%	90.8%		9.3%	31.4%	59.3%
Talking about your current personal brand and/or business needs.	38.2%	38.2%	38.2%	88.0%		33.0%	40.9%	26.1%
Asking your network connections to introduce you to someone you want to meet.	32.8%	35.1%	30.5%	93.0%		31.3%	33.8%	35.0%

(continued)

Table 4. (continued)

Strategy	Strategy use ^a			Effectiveness ^b		Most effective for ^c		
	Total	Male	Female	Total	Advancing career	Strategic influence	Current job	
Telling a story about your future challenges and needs.	29.8%	30.5%	29.0%	91.0%	16.9%	35.2%	47.9%	
Asking a connection to recommend you for an opportunity at work.	22.5%	16.0%	29.0%	89.8%	58.5%	26.4%	15.1%	
Transition								
Referring them to someone else.	65.7%	62.6%	68.7%	52.9%	5.5%	71.4%	23.1%	
Deferring responding (i.e., I'm busy right now, but feel free to follow up).	51.9%	51.2%	52.7%	20.6%	17.9%	32.1%	50.0%	
Using a recent transition (such as a new job/location) as a reason to connect less.	30.9%	25.2%	36.6%	25.9%	23.8%	38.1%	38.1%	
Suggesting that you are not qualified to do what they are asking.	26.0%	26.7%	25.2%	35.3%	8.3%	58.3%	33.3%	
Postponing face-to-face or virtual get-togethers.	23.3%	25.2%	21.4%	18.0%	18.2%	45.5%	36.4%	
Avoiding events a contact will be attending.	13.0%	15.3%	10.7%	20.6%	0.0%	57.1%	42.9%	

Note. A shaded cell indicates that the strategy was statistically more effective for the shaded objective than the other nonshaded objective(s). ^aPercentages are based on the whole sample. Strategies are sorted within each category by the overall percentage of people who reported using the strategy. The percentage of men and women who reported using each strategy is also provided. ^bPercentages are based on those employees in the sample who reported using each strategy. ^cPercentages are based on those employees who reported that a strategy was effective.

people who said that a strategy was effective for any one of the objectives by the number of people who used the strategy. We chose this approach because respondents could not comment on the effectiveness of a strategy if they had not used it. Again, we conducted a series of chi-square tests to determine if there were gender differences in the perceived effectiveness of the strategies. Unlike strategy use, we found no results to suggest that the networking strategies were perceived to be more or less effective by males or females, so we only present the overall effectiveness percentages in Table 4.

Finally, we assessed whether certain strategies were more effective for achieving the goals of improving career advancement, strategic influence, and current job effectiveness. These results are presented in the columns labeled *Most Effective For*. The percentages are based only on respondents who reported that a strategy was effective. Specifically, we divided the number of respondents that said a strategy was effective for career advancement, strategic influence, or current job effectiveness by the total number of respondents who said that it was effective. We then conducted a series of chi-square tests to determine whether certain strategies were more effective for one of these goals. This was done by comparing the proportion of respondents who chose each category to what would be expected by chance (i.e., all options equal at 33.3%). In Table 4, a grey shaded cell indicates that the strategy was found to be statistically more effective for the shaded objective than the other objectives.²

Insights on Strategy Use and Effectiveness. This survey of networking strategy use and perceived effectiveness was conducted to aid management educators in recommending effective networking strategies for the specific goals of improving career advancement, strategic influence, and current job effectiveness. In this section, we describe five key insights that management educators should consider when discussing strategies for changing a network: (1) the ability to transition relationships is an important skill to develop, and people have few good strategies for it; (2) leveraging strategies were most effective for helping individuals in their current job; (3) maintaining strategies were most effective for improving individuals' strategic influence; (4) the most commonly used building strategies are designed to help individuals meet people and become acquaintances not develop deep relationships; (5) men and women reported some differences in the use, but not the perceived effectiveness of different networking strategies. Below is a more in-depth discussion of these insights.

First, while respondents reported commonly using and finding nearly all building, maintaining, and leveraging strategies to be effective, transitioning strategies were used less frequently and were not as effective. There is a limit

to the number of network connections individuals can support; current connections prevent the formation of new ones. Therefore, the ability to transition relationships is an important skill to develop. Many people experience network overload because they find it difficult to transition or weaken relationships (Cross & Thomas, 2008). Indeed, respondents were much less likely to report using transitioning strategies and those who did described them as much less effective. Often people are concerned that weakening relationships may cause resentment and be perceived negatively by others, inhibiting individuals' ability to build and leverage relationships in the future (Burt, 1992). Women in particular, may be concerned that they will be viewed negatively because they acted in their own self-interest when they are expected to be communal, nurturing, and sensitive to others (Gilligan, 1982; Miller, 1976). However, it is possible to transition relationships in positive ways. For example, referring a contact to someone else who can help them is a way to add value to that contact, while minimizing the time and energy devoted to the relationship. Often people do not realize the benefits of this behavior; when done thoughtfully it can bring value and build good will among everyone involved. Furthermore, individuals often assume that transitioned relationships are lost when in fact they can be strengthened again and leveraged in the future. In fact, there is a lot to be gained from reconnecting and research suggests that, if there is a solid foundation to the relationship, it is surprisingly easy to reactivate a connection. In addition, these connections often provide novel insights that are not available from current contacts (Levin et al., 2011a, 2011b) and may be especially beneficial for working women and men who find they need to take career breaks. Management educators can use this information to help individuals become more effective at transitioning relationships, and because only a few effective transitioning strategies were identified, they may consider facilitating a discussion about why transitioning relationships is difficult, potentially unearthing some useful strategies for their students through this process.

Second, the majority of leveraging strategies were viewed as most effective for helping individuals in their current job. These strategies put others in the position to act on a person's behalf, perhaps reciprocating on things the person has done for them in the past. The success of these strategies hinges on developing deep enough relationships that people do not feel exploited when they are asked to do something. Respondents also indicated that asking a connection to recommend you for an opportunity at work was most effective for career advancement. Opportunities where individuals are recommended for a committee or high profile assignment at work are useful ways for individual to develop connections with more senior leaders or gain sponsors in their organization (de Janasz & Forret, 2008). These types of relationships

are often more difficult for women to develop (Hewlett, 2013), thus, this may be a particularly useful strategy that management educators can recommend to women who want to form these connections.

Third, most maintaining strategies were viewed as particularly effective for improving individuals' strategic influence. Through these behaviors a person provides valuable resources to others (e.g., advice, resources, time, connections to others), which deepens the degree of emotional closeness they have with the person and invokes the principle of reciprocity (Blau, 1964). In giving something of value to someone else, a sense of obligation is created for them to return (or reciprocate) in the future (Gouldner, 1960). Management educators can advise individuals that one of the best ways to start the cycle of reciprocity in relationships is to provide others with value before needing something from them (Ibarra & Hunter, 2007). Providing value and reciprocating also helps individuals avoid guilt (Casciaro et al., 2014) or being seen as exploiting others (Eagly & Carli, 2007).

Fourth, the most commonly used building strategies are designed to help individuals meet people and begin to develop acquaintances (e.g., attending networking events or conferences). Management educators should encourage the use of other strategies when students need to develop deeper relationships. As discussed previously, acquaintances can provide novel, useful information when the person belongs to a different social circle; however, individuals who are overly reliant on structured networking events tend to build insular networks around these activities (Shipilov et al., 2014).

Fifth, some gender differences were found in strategy use, but not perceived effectiveness. For example, consistent with prior research, women were more than two times as likely as men to join a formal mentoring program. While our data indicate that mentoring was perceived to be effective for everyone who tried it, especially for career advancement, other research cautions that women benefit less because their mentors often do not advocate for them as much as men's mentors do (Ibarra & Hunter, 2007). As we mentioned earlier, individuals must ensure that they have sponsors who promote, protect, prepare, and push them (Hewlett, 2013). Future research is needed to examine more objective indicators of effectiveness and whether gender differences exist when these measures are used. If there are discrepancies between the perceived and objective effectiveness of specific networking strategies, or if gender differences exist in objective effectiveness, then women may be unaware of issues that are impacting the actual effectiveness of their networking strategies. Research of this type is needed to help management educators guide all individuals, but especially female leaders.

Implications for Management Educators

In this article, we present a framework and resources to assist management educators in integrating networking, networks, and social capital into their courses and leadership development programs in a comprehensive way. This approach first addresses individuals' often misconceived notions of networks and networking. It then helps management educators teach individuals what an effective network looks like and assess whether they have an effective network so that they can determine what changes they need to make to improve its effectiveness. Finally, it provides management educators with a number of strategies individuals can use to achieve the specific goals of improving their career advancement, strategic influence, and current job effectiveness. For each step in the framework, we point management educators to useful readings, assessments, and activities. This framework applies to both men and women; however we argue that it is critical for management educators to address the far from uniform effects that individuals' network structure and social capital have on men and women (Putnam, 2001). As such, we discussed aspects of developing and leveraging network connections that are particularly challenging for women and propose that this content should be incorporated into both women's only and co-ed leadership development programs.

It is important for men and women not only to know the challenges everyone faces when creating valuable networks of contacts but also to understand the unique challenges women experience related to each stage of the framework. When women understand the barriers they face in developing an effective network and ways to overcome those barriers, they can become more effective at networking and utilizing their network. In addition, as women learn to overcome these challenges and increase their effectiveness, they may break through the glass ceiling, further helping to minimize some of the gender biases and systemic barriers women face (Eagly & Sczesny, 2009). When both men and women understand the challenges women face in creating and leveraging their network, they can work to reduce gender biases that may exist in their own and others' minds. Finally, when those in power understand these gender contingencies, they can work to remove organizational practices that perpetuate gender bias and discrimination (Hewlett et al., 2010). As such, gender differences should be included in the teaching of networks, networking, and social capital in women's only and mixed gender leadership development programs. However, the decision to conduct women's leadership development in a women's only or mixed gender course or leadership development program is a source of continued debate (Anderson, Vinnicombe, & Singh, 2008) and management educators must carefully consider the potential drawbacks and benefits of each approach.

Pros and Cons of Delivering Content in Same and Mixed Gender Programs and Courses

A primary benefit of teaching networks in a women's only session is the safety and security it creates for women to talk openly about network biases in the workplace. This conversation often leads to other topics regularly discussed in women's leadership development programs, such as authenticity and social identity. In women's only sessions, women often leave with a strong sense of bonding and support from the other women, especially when these sessions are industry-specific or create an informal networking group inside an organization. A downside of women's only sessions is that they do not address one of the important challenges women face in developing their network—connecting with senior men. While these sessions are very supportive, when women leave they will not have had the opportunity to begin a productive conversation with men about the unique networking challenges they face and the associated gender biases and organizational barriers.

To address this limitation of women's only leadership development programs, some organizations have looked for ways to integrate men, including bringing men in as guest speakers or inviting them to attend a networking event after the formal learning. This approach is designed to help women develop important network connections with senior men from their industry or organization and to begin changing unproductive workplace structures, policies, and dynamics by helping senior men understand the unique challenges women face when engaging in professional networking. The drawback of this approach is that men are often treated as "special guests," which can actually increase the power distance between women and men in the workplace. Including senior men in networking events can also reinforce the divide by creating bottleneck conversations if there are a disproportionate number of men relative to women.

Discussing how the networks of men and women differ, and the similar and unique challenges each gender faces, in a mixed gender leadership development program can have a powerful impact and overcome some of the limitations of the other approaches. Men in these sessions begin to understand some of the unique challenges women face while networking professionally. We have observed that men are surprised to hear about the challenges women face in networking, especially related to mentorship and sponsorship, and this awareness helps them see that they have a role in helping women network more effectively. Finally, these sessions provide opportunities for mixed gender networking connections to take place more authentically (than when bringing in a speaker). A potential drawback of delivering this type of content in a mixed gender group is that both men and women may find it

more difficult to have deeper conversations regarding the difficulties of building and using their network when the root causes of those challenges are sensitive or controversial. For example, one common question women raise is, "How can I connect and become close to senior men in my organization without my colleagues suggesting some romantic connection?" Women do not typically raise this question when men are in the sessions.

In this article, we focused on courses and leadership development programs where individuals come from a variety of organizational or other backgrounds. These open-enrollment leadership development programs are similar in this way to undergraduate business, MBA, and Executive MBA courses. However, women's leadership development often occurs in programs designed to take place within organizations. A deep discussion of how to best integrate networks, networking, and social capital into these custom leadership development programs is beyond the scope of the current article; however, the same guiding framework would apply. Management educators should be aware of the potential for sensitivity around some of the challenges they may want to discuss in these leadership development programs. For example, difficulty making connections with senior men or the underrepresentation of women in top organizational roles may be sensitive depending on the history of the organization or the current political environment. The organization's culture, norms, gender composition, and politics limit the content on which management educators can lead productive discussions. Furthermore, it is important to note that sometimes a stigma can develop around women's only leadership programs when run inside an organization (Anderson et al., 2008). Questions arise regarding whether these leadership development programs are indicative of new organizational policies to advance the promotion of women or if this is a form of succession planning for female leaders. When this happens, we often hear men in these organizations joke about having an all men's leadership development program. To avoid such stigmas, management educators can run women's leadership development opportunities through informal clubs or programs that support a broad range of underrepresented groups within organizations.

Conclusion

In sum, the objective of this article was to help management educators incorporate social capital, networks, and networking skills into their courses and leadership development programs. To do so, we drew on existing literature and professional practice to provide a framework that offers a comprehensive and nuanced view of how these topics should be integrated into leadership development. The three steps guide management educators in how to prepare

others to determine whether their current network is providing the resources they need to achieve their goals. Specifically, it can help management educators address their students' misconceptions about networks and networking, thereby preparing them to learn the science of what makes an effective network and to determine how their network could be changed to improve its effectiveness. While initial research suggests that educating individuals on the properties of an effective network can improve their workplace effectiveness and career advancement (e.g., Burt & Ronchi, 2007), future research is needed to evaluate whether the proposed framework helps individuals better achieve their work/career goals.

The data we collected regarding the effectiveness of different networking strategies serve as an initial resource for management educators who want to provide guidance to their students through the recommendation of specific, actionable networking strategies that will help them improve their career advancement, strategic influence, and current job effectiveness. We identify a number of similarities and a few differences in how men and women build and use their networks that can be fruitfully incorporated into development efforts. We also propose that future research examine the objective effectiveness of networking strategies, including potential gender differences, and investigate how individuals can more effectively transition relationships, both of which are needed to help students effectively build and use their networks. While the gendered nature of networking is often not discussed in development efforts, we argue that all people (regardless of gender) need to be aware of the unique challenges women face. Doing so will help women succeed in the workplace and will help all individuals become a positive source of change within their organizations.

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Notes

1. The word management educator is used to refer to both instructors of business and leadership courses and leadership development professionals training degree and nondegree programs. The word student encompasses undergraduates, MBAs, working professionals, and organizational executives.

2. These results are available from the first author but due to space constraints are not provided here.

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