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RECONCEPTUALIZING MENTORING AT WORK: A DEVELOPMENTAL NETWORK PERSPECTIVE

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We introduce social networks theory and methods as a way of understanding mentoring in the current career context. We first introduce a typology of "developmental networks" using core concepts from social networks theory—network diversity and tie strength—to view mentoring as a multiple relationship phenomenon. We then propose a framework illustrating factors that shape developmental network structures and offer propositions focusing on the developmental consequences for individuals having different types of developmental networks in their careers. We conclude with strategies both for testing our propositions and for researching multiple developmental relationships further.

In much of the mentoring research of the past three decades, researchers have conceptualized mentoring as the developmental assistance provided by a more senior individual within a protégé's organization—that is, a single dyadic relationship. This focus reflects a stream of research on mentoring, beginning with Levinson and colleagues, who proposed that a mentor is "one of the most complex and developmentally important relationships. . . . the mentor is ordinarily several years older, a person of greater experience and seniority . . . a teacher, adviser or sponsor" (Levinson, Darrow, Klein, Levinson, & McKee, 1978: 97). Recently, however, scholars have begun to consider the limitations of focusing research and practice on a single or primary mentor and, instead, have begun to revisit Kram's (1985) original proposition that individuals rely upon not just one but multiple individuals for developmental support in their careers—a phenomenon she calls "relationship constellations" (e.g., Baugh & Scandura, 1999; Higgins, 2000; Thomas & Higgins, 1996).

This recent reconsideration of Kram's work has arisen from changes in the current career and employment context, as well as research on

alternative forms of mentoring, as we describe in this article. This reconsideration has prompted much debate among mentoring scholars as to whether such a reconceptualization essentially waters down the original mentoring construct or, rather, whether it provides an important new lens through which to view mentoring at work. Here we argue the latter. We build upon Kram's original idea that individuals receive mentoring assistance from many people at any one point in time, including senior colleagues, peers, family, and community members. In particular, we contribute to mentoring research by providing conceptual clarity and focus to this new lens by bringing in theory and methods from social network research to help us understand mentoring as a multiple developmental relationship phenomenon.

Our primary vehicle for doing this is the introduction of a typology of "developmental networks" that integrates social network theory and methods with research on mentoring. The two main dimensions of our typology are (1) the diversity of individuals' developmental networks and (2) the strength of the developmental relationships that make up these networks. We have chosen to focus on these two dimensions because our literature review and observations of the new career context suggest that individuals are experiencing increasing variation in both the sources and strength of their developmental support. We describe how consideration

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of these two dimensions yields four prototypical developmental network structures, and we provide a framework for understanding the factors that shape the formation of such network structures. Finally, we offer propositions regarding the developmental consequences of having different types of developmental networks for the protégé and conclude with research strategies for studying individuals' developmental networks.

We begin with a brief review of mentoring theory to date and with a consideration of the current career context in which mentoring occurs.

BACKGROUND: MENTORING, PAST AND PRESENT

A Traditional Perspective on Mentoring

Adult development and career theorists have long espoused the benefits of having a mentoring relationship for an individual's personal and professional development (Dalton, Thompson, & Price, 1977; Hall, 1976; Kram, 1985; Levinson et al., 1978). Since these seminal studies, quite a lot has been learned about the nature and benefits of traditional forms of mentoring (for mentoring reviews, see Burke & McKeen, 1990; Mullen, 1994; and Ragins, 1997a). A "traditional" mentoring relationship is one in which a senior person working in the protégé's organization assists with the protégé's personal and professional development (e.g., Fagenson, 1989; Ostroff & Kozlowski, 1993; Ragins & McFarlin, 1990). Moreover, the "mentor" generally provides high amounts of both career and psychosocial assistance (Thomas & Kram, 1988).

Studies on mentoring have provided insight into individual-level factors that account for the cultivation of such relationships, including protégé locus of control (Noe, 1988), sex-role orientation (Scandura & Ragins, 1993), and protégé and mentor race and gender (Ragins & Cotton, 1993; Thomas, 1990; Turban & Dougherty, 1994). In addition, we can now point to organization-level factors that affect the growth of developmental relationships, such as organizational culture (Aryee, Chay, & Chew, 1996), hierarchical structure (Ragins & Cotton, 1991), and diversity (Ragins, 1997b). Further, although additional longitudinal work is needed, we understand some of the career consequences of having a

traditional mentoring relationship; studies have shown that such a relationship is related to enhanced career development (Kram, 1985; Phillips-Jones, 1982), career progress (Zey, 1984), higher rates of promotion and total compensation (Whitely, Dougherty, & Dreher, 1991), career satisfaction (Fagenson, 1989; Riley & Wrench, 1985; Roche, 1979), and clarity of professional identity and sense of competence (Kram, 1985). Finally, research of a clinical nature has provided valuable insight into the conditions under which the processes of mentoring affect the quality of the relationships and associated developmental outcomes for both parties (Kram, 1985; Thomas, 1993).

In all of these studies, the conceptualization of mentoring has been what we call traditional—the researchers focusing on a single or primary mentoring relationship or, in aggregate, on the amount of mentoring a protégé has received through a series of dyadic relationships over the course of his or her career. When researchers have focused on a primary mentoring relationship, their analyses generally have been based on the first named mentor; individuals beyond a primary senior person seldom have been considered (for an exception, see Baugh & Scandura, 1999). Studies that focus on the amount of mentoring received tap the sequence of mentoring relationships the respondent has experienced, rather than explore a configuration of relationships occurring simultaneously. Additionally, mentoring research has generally focused on the perspective of the protégé. Although some scholars have pointed out the developmental benefits to the mentor (Hall & Kram, 1981; Kram, 1985; Kram & Hall, 1996), research on the benefits to the mentor and/or on understanding why and/or how mentors become part of a protégé's developmental network is still in its infancy (for exceptions, see Allen, Poetee, Russell, & Dobbins, 1997; Ragins & Cotton, 1993).

Underlying much of the prior research on mentoring has been the assumption that the effectiveness of a mentoring relationship lies in the amount of mentoring assistance provided. Studies have often focused on the amount of mentoring support provided as the dependent variable of interest, with researchers focusing in particular on how different characteristics of the protégé, mentor, and mentor-protégé relationship account for variation in the breadth and

depth of mentoring assistance received (e.g., Koberg, Boss, Chappell, & Ringer, 1994; Turban & Dougherty, 1994). Still, if the "more mentoring is better" assumption holds, it seems relevant to consider alternative sources that might provide similar types of assistance.

In a few studies researchers have examined sources of mentoring support beyond a traditional or primary mentor. For example, Kram and Isabella (1985) examined peer relationships and the types of support they tend to provide. They demonstrated that although different subcategories of help are provided by different types of peers, at a more general level, these forms of assistance are indeed career and psychosocial in nature and, thus, serve mentoring functions. In addition, recent theoretical work has suggested that alternative forms of mentoring relationships (e.g., lateral relationships, mentoring circles) may be more or less helpful to individuals in adapting to organizational change (Eby, 1997; Kram & Hall, 1996). Closer still to a developmental network perspective, Burke, Bristor, and Rothstein (1995) studied interpersonal discussion networks by explicitly soliciting names of a variety of people from both inside and outside the respondents' organization and from a wide range of social systems (family, friends, nonwork organizations); these scholars then assessed the extent to which these people provided career and psychosocial assistance. However, rarely have scholars directly solicited from protégés a set of concurrent relationships that are specifically developmental in nature and that include but are not limited to one's primary mentor, as Kram's relationship constellation construct originally proposed.

Perhaps reflecting this move toward a consideration of alternative forms of mentoring, the empirical work on mentoring has become less precise over the years (Chao, 1998; Mullen, 1998). The operational definition of a mentoring relationship has varied considerably in the past couple of decades. For example, as noted by Mullen, "We have yet to agree on whether a mentor can be one's immediate supervisor or if that type of relationship has different characteristics and outcomes than a mentor" (1994: 258), even though researchers have explored this topic (e.g., Burke, McKeen, & McKenna, 1993; Kram, 1983). Mentoring descriptions and name-generator devices vary considerably in recent empirical work; in some studies, participants

are asked directly to name their mentors and, hence, do not distinguish between formal and informal relationships (cf. Cox & Nkomo, 1991; Fagenson, 1989; Ragins & McFarlin, 1990). Also, in some studies, participants are told the purpose of the relationship in question (e.g., to aid a protégé's personal and professional development); in others they are not. Further, some definitions specify that the relationships be intraorganizational (e.g., Chao, Walz, & Gardner, 1992), whereas others (although few) do not (e.g., Higgins & Thomas, in press; Mullen, 1994).

Although the multitude of current mentoring definitions could lead one to conclude that we have yet to decide exactly what mentoring is and is not, it might be the case instead that we are simply studying different types of mentoring. The latter is our perspective. While there will always be a special place in the literature for studying the single and traditional "mentor" relationship—in the sense that Levinson et al. (1978) describe—the shift in mentoring studies toward considering alternative sources suggests there is a conceptual gap that needs to be addressed as well. In short, we are ready to consider mentoring as a multiple relationship phenomenon.

Mentoring in the New Career Context

In addition to this theoretical "readiness" to reconsider mentoring boundaries, changes in the current career environment also suggest that such a review of mentoring is needed. Career researchers such as Arthur and Rousseau (1996) and Hall (1996) have written extensively about the changing nature of the career environment. At the core of this work are four broad categories of change that affect the context in which individuals' careers unfold and that have direct implications for the nature of individuals' developmental relationships.

First, the employment contract between individuals and their employers has changed (Rousseau, 1995). Under increasing pressure to respond to competitive conditions and to meet ongoing customer demands, organizations have had to negotiate and renegotiate formal employment relationships and the psychological contracts or shared sense of obligations that underlies them (Robinson, 1996: 574). Job security has become a phenomenon of the past (Pfeffer, 1997), and organizational restructuring, globalization,

and the externalization of work (Pfeffer & Baron, 1988) have become phenomena of the present. Organizational scholars have moved beyond Whyte's (1956) view of the organization man in favor of a "boundaryless" model of the work environment, in which firms no longer provide the sole or primary anchor for an individual's personal and professional identity (Arthur & Rousseau, 1996; Hall, 1996; Mirvis & Hall, 1994). Thus, individuals increasingly may need to look beyond the organization to multiple relationships that can provide valuable developmental assistance (Thomas & Higgins, 1996).

Second, the changing nature of technology has also affected the form and function of individuals' careers and career development. The rapid pace of change in information and digital technologies has increased the importance of knowledge workers—those who have specific rather than general competencies (Bailyn, 1993; Savage, 1990; Zuboff, 1988). Today, organizations increasingly place value on individuals who not only can adapt but can learn quickly (McCauley & Young, 1993)—indeed, who can learn how to learn (Hall, 1986). Unlike during Whyte's era, having seniority in an organization today does not necessarily provide "value" to an organization. Rather, being up to date on recent technological developments, operating on the edge of what is known (Mohrman, Cohen, & Mohrman, 1995), and having the flexibility to learn (Kram & Hall, 1996) by consulting with a variety of people about one's work (Perlow, 1999) are particularly salient in the current competitive environment. Consequently, individuals may need to draw on relationships from a variety of sources, not just senior-level, intraorganizational relationships, for developmental assistance.

Third, the changing nature of organizational structures affects the sources from which individuals receive developmental assistance. As organizations expand internationally, align and collaborate with other organizations in a variety of structural arrangements (e.g., joint ventures, licensing, outsourcing; see Lawler, Mohrman, & Ledford, 1992, and Mirvis & Marks, 1992), and conduct so-called virtual business, employees will need to look beyond intraorganizational sources to others who can provide them with developmental assistance. Moreover, as organizations become fast, flat, and flexible (Hall, 1996), so too does the nature of the work individuals do, necessitating both constant reconsider-

ation of how to develop professionally and where to look for assistance. From the mentor's perspective, offering advice also may be increasingly difficult, as the nature of organizational work for the protégé and for the mentor continuously changes. Additionally, from a pragmatic perspective, the changing nature of organizational structures may constrain the protégé's ability to rely on one mentor inside the organization, because the mentor may be subject to relocation, job redefinition, or organizational change.

Fourth, organizational membership has become increasingly diverse, particularly in terms of race, nationality, and gender, which affects both the needs and resources available for development (Blake, 1999; Kram & Hall, 1996; Ragins, 1997a). Research on the career development of minorities has clarified the benefits of developing multiple developmental relationships that extend beyond one's place of work (Thomas, 1990, 1993). Thomas and Gabarro's (1999) research on black and white managers and executives has shown that successful black executives tend to draw on multiple sources for career and psychosocial assistance, rather than a single or primary mentor. Organizational scholars have argued that there is much to be learned from these minority experiences: as careers become more boundaryless and individuals' work crosses organizational boundaries, so too will the sources from which both majority and minority individuals draw support in their careers (Thomas & Higgins, 1996). Table 1 summarizes past and present conceptualizations of mentoring.

This brief review of the literature on traditional forms of mentoring and on the changes in the current career environment suggests particular shifts in the sources and nature of mentoring relationships today. The phenomenon of mentoring—that is, the provision of career and psychosocial support—is still of primary interest, but *who* provides such support and *how* such support is provided are now more in question. In particular, we expect increasing variance in what we call "developmental network diversity": the range of social systems (e.g., community, employment, school) from which individuals draw mentoring support. Further, given the changing nature of work itself, we expect to find increasing variance in the amount of communication, emotional closeness, and level of

TABLE 1
Past and Present Conceptualizations of Mentoring

Phenomenological Boundaries	Traditional Mentoring Perspective	Developmental Network Perspective
Mentoring relationship(s)	Organizational Hierarchical Single dyadic relationship Focus on protégé learning Provided in sequence of relationships throughout career	Intra- and extraorganizational (e.g., profession, community, family) Multilevel Multiple dyadic/networked relationships Mutuality and reciprocity Provided simultaneously by multiple relationships at any given time in career
Functions served	Organization/job related	Career/person related
Levels of analysis	Dyad level	Network level and dyad level

reciprocity experienced in developmental relationships today—"developmental relationship strength."

These two dimensions, developmental network diversity and developmental relationship strength, form the basis of the typology of developmental networks that we introduce. They are also consistent with core concepts in social network theory and research (for reviews, see Brass, 1995, and Ibarra, 1993). By focusing on these two dimensions and, more generally, by integrating social network research with prior mentoring research, we extend the mentoring literature beyond its traditional dyadic focus to emphasize the importance of multiple developmental relationships. We call this new approach to mentoring at work a "developmental network perspective."

A DEVELOPMENTAL NETWORK PERSPECTIVE

There are four central concepts to our developmental network perspective: the developmental network itself, the developmental relationships that make up an individual's developmental network, the diversity of the developmental network, and the strength of the developmental relationships that make up the developmental network.

Developmental Network

We define an individual's developmental network as the set of people a protégé names as taking an active interest in and action to advance the protégé's career by providing developmental assistance. This definition is consistent with prior research on mentoring (e.g., Thomas, 1990) and yet does not restrict the phe-

nomenon to a single relationship within the protégé's organization, as has often been the case with mentoring research in the past. By developmental assistance, we mean two types of support studied by mentoring scholars: (1) career support, such as exposure and visibility, sponsorship, and protection, and (2) psychosocial support, such as friendship, counseling, acceptance and confirmation, and sharing beyond work (Kram, 1985; Thomas, 1993). Thus, the provision of developmental assistance defines the boundaries of the developmental network construct.

Consistent then with social network research that has focused on specific types of networks, such as "friendship networks" or "advice networks" (Brass, 1984; Krackhardt, 1990; Krackhardt & Porter, 1985; Lincoln & Miller, 1979), we focus on a specific type of network here: a developmental network. Hence, an individual's developmental network is a subset of his or her entire social network (cf. Burt, 1992); it does not consist of *all* of an individual's interpersonal relationships, nor does it comprise everyone with whom the protégé ever communicates about development. The developmental network consists of those relationships the protégé names at a particular point in time as being important to his or her career development; they are simultaneously held relationships, as opposed to a sequence of developmental relationships (e.g., Baugh & Scandura, 1999; Ragins & Cotton, 1999; Whitely & Coetsier, 1993). Finally, since this is a group of people the focal individual or "ego" identifies (as opposed to the researcher), a developmental network is what social network researchers would call an "egocentric network"; it is not the entire set of

ties to and from specific individuals within a bounded social system, such as an organization (see Ibarra & Smith-Lovin, 1997, for a review). Therefore, consistent with the approach taken in mentoring research, we focus on developmental relationships that are known and identified by the protégé and do not consider individuals who may help a protégé without his or her knowledge.

Developmental Relationships

Distinctions among terms that apply to mentoring relationships—*mentor*, *sponsor*, *coach*, and *peer*—have all been made (Chao, 1998). Scholars have distinguished between true mentors, who provide high amounts of both career and psychosocial support, and sponsors, who provide high amounts of career support but low amounts of psychosocial support (Thomas & Kram, 1988). Rather than add to this list, we provide one overarching term for people the protégé names as providing developmental assistance (i.e., career and psychosocial support): *developers*. This is similar to calling the individuals in one's advice network "advisors" (e.g., Ibarra & Andrews, 1993). Thus, an individual's developmental network may include but is not limited to a single, traditional mentor relationship.

Developmental Network Diversity

In social network research, the concept of network diversity concerns the flow of information—in particular, the extent to which the information provided by one's network is similar or redundant (Burt, 1983, 1992; Granovetter, 1973). The less redundant the information provided by one's network, the greater the focal individual's access to valuable resources and information. There are two basic ways to define network diversity: (1) *range*, the number of different social systems the relationships stem from, and (2) *density*, the extent to which the people in a network (here, developers) know and/or are connected to one another (Brass, 1995; Burt, 1983; Krackhardt, 1994).

For example, a protégé who has one developer from an employer, one from school, one from a professional association, and one from a community organization (e.g., religious institution) will have a high-range developmental net-

work, whereas an individual with all four ties from the same social system (e.g., one employer) will have a low-range network. An individual who has five developers, all of whom know one another, will have a high-density network, whereas an individual with a similar set of developers who do not know each other will have a low-density network. In both instances the underlying mechanism—information redundancy—is the same. The greater the range of the developmental network, the less redundant the information provided. Similarly, the less "dense" or interconnected the developers in one's network, the less redundant the information provided.

Here we have chosen to focus on developmental network *range* as our specific conceptualization of developmental network diversity, since it most closely captures changes in the current career environment that prompt individuals to look outside the organization for developmental assistance. Therefore, we define developmental network diversity as *range*—the number of different social systems the ties originate from, such as one's employer, school, community, professional associations, and so on. We do not define network diversity in terms of differences between the protégé and his or her developers' race and/or gender (e.g., Ragins, 1997a). This diversity concerns the nature of the relationships held, rather than the attributes of the developers.

Relationship Strength

By relationship strength, we mean the level of emotional affect, reciprocity, and frequency of communication, as originally proposed by Granovetter (1973; see also Krackhardt, 1992). In a related fashion, in clinical research on adult development and the role of relationships in learning and identity formation, researchers have found that relationships with strong interpersonal bonds tend to be characterized by reciprocity, mutuality, and interdependence (Fletcher, 1996; Jordan, Kaplan, Miller, Stiver, & Surrey, 1991; Miller, 1986). These types of bonds can be characterized as strong ties, and individuals in such relationships tend to be highly motivated to help each other (here, the protégé; Granovetter, 1982; Krackhardt, 1992). In general, ties may be characterized as either strong, weak, or indeterminate (as with casual contacts

or strangers; Aldrich, 1999). Although developmental relationships are not ties with casual contacts or strangers, they may indeed be weak-tie developmental relationships if, for example, the protégé receives but does not offer much opportunity for learning or assistance to the developer in return. Thus, we distinguish between developmental networks that consist of, on average, weak versus strong ties.

Relationships Among Concepts

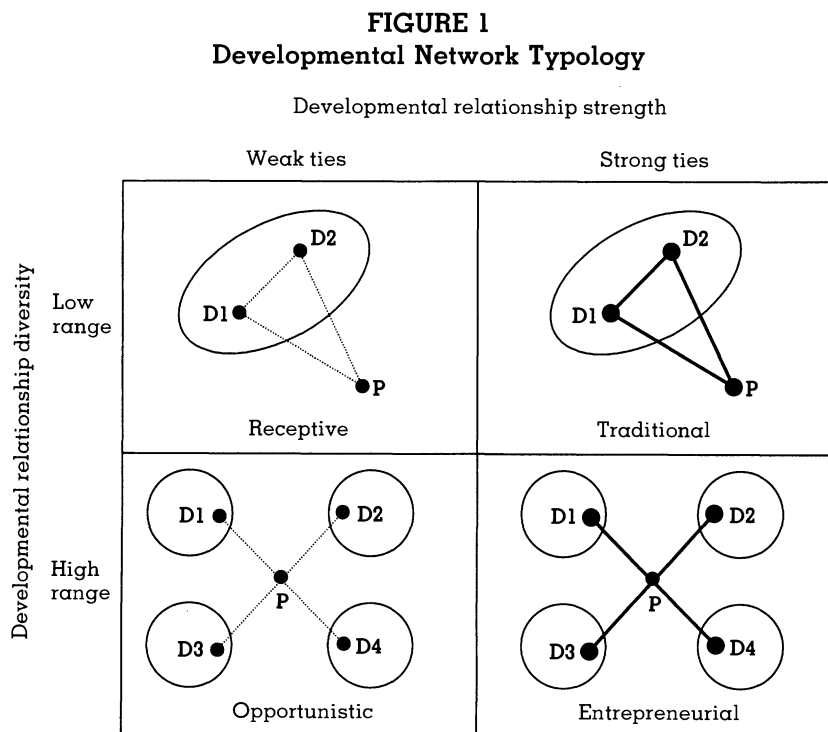
Content-specific networks (e.g., friendship networks) tend to encompass up to four or five relationships (Podolny & Baron, 1997). Therefore, we expect that individuals' developmental networks will tend to be small in size. Also, since high-range developmental networks tap into multiple social systems, they will tend to be larger than low-range developmental networks. Further, because of the relatively high frequency of interaction that is characteristic of strong-tie developmental relationships, we expect greater amounts of support to be provided by such relationships (Mullen, 1998). In particular, strong-tie developmental relationships should provide relatively more psychosocial as-

sistance than weak-tie developmental relationships, owing to the emotional closeness between the protégé and his or her developer(s).

DEVELOPMENTAL NETWORK TYPOLOGY

Developmental network diversity and developmental relationship strength are the two core dimensions of our typology. Together, these yield the following four categories of developmental networks: (1) high developmental network diversity, high developmental relationship strength (which we call "entrepreneurial"); (2) high developmental network diversity, low developmental relationship strength ("opportunistic"); (3) low developmental network diversity, high developmental relationship strength ("traditional"); and (4) low developmental network diversity, low developmental relationship strength ("receptive").

Figure 1 depicts each category's prototypical developmental network. We recognize that developmental network diversity and relationship strength are actually continuous rather than dichotomous dimensions. We treat the dimensions as dichotomous here so that we can begin to develop theory regarding the very basic or



Key: D, developer; P, protégé.

"ideal types" (Weber, 1947) of social structures of individuals' developmental networks. Developers are identified with D1, D2, D3, and D4 and the protégé with P. Consistent with social network research, we depict the connections between an individual and his or her developers with a line: solid lines for strong relationships and dotted lines for weak relationships (Burt, 1983). We use circles to denote the boundaries of social systems.

As shown, our developmental network perspective considers both the protégé's (P's) relationships with his or her developers (D1, D2, D3, and D4, for example) and the relationships that the developers may have with one another. First, P's relationship with D1 may be affected by P's relationships with D2, D3, and D4. Rather than simply focus on the P-D1 relationship, as has been the case in traditional mentoring research, we consider as well the P-D2, P-D3, and P-D4 relationships. For example, it is possible that P may be less dependent upon a primary developer, D1, since he or she has access to such information as advice and counsel from another developer, D2. Second, P's relationship with D1 may be affected by the extent to which P's other developers—D2 and D3, for example—know or are connected in some fashion to D1 and so can jointly assist or influence the development of P. Therefore, unlike prior research on mentoring, our developmental network perspective does not treat an individual's primary developmental relationship in isolation.

Entrepreneurial Developmental Networks

Burt (1992) calls social networks that span multiple groups or subnetworks "entrepreneurial." The strength of such wide-ranging networks derives from their ability to bridge otherwise unconnected clusters of people. For individuals with relatively low levels of organizational legitimacy, Burt shows that such network configurations can be valuable since they provide access to different sources of information. Individuals with social networks characterized by what he calls "structural holes" are found to be uniquely well positioned to act as brokers between otherwise unconnected parties—to serve as *tertius gaudens*, or the third party who benefits.

Our *entrepreneurial* category, as depicted, captures both the wide-ranging nature of the

developmental network as well as the strength of the ties. While the strength of diverse networks lies in the variety of information such ties tap into, the advantage of strong ties stems from the motivation individuals have to act on behalf of a focal person (Granovetter, 1982; Krackhardt, 1992). As Granovetter notes in reference to his seminal 1973 "The Strength of Weak Ties" article:

Lest readers of ["The Strength of Weak Ties"] . . . ditch all their close friends and set out to construct large networks of acquaintances, I had better say that strong ties can also have some value. . . strong ties have greater motivation [than weak ties] to be of assistance and are typically more easily available (1982: 113).

Indeed, empirical research on strong ties has shown that strong ties exhibit the highest levels of trust (Krackhardt, 1992) and are particularly helpful during times of uncertainty (Krackhardt & Stern, 1988). Thus, the entrepreneurial developmental network is made up of developers who are highly motivated to act on behalf of the protégé and who collectively provide access to a wide array of information.

The idea that individuals can benefit from simultaneously having strong ties and broad resources reflects more recent social network research. In the past, social network researchers have pointed out that tie strength and network density tend to be highly correlated, since like individuals tend to be attracted to and, thus, interact with like individuals; hence, people with whom an individual has strong ties will tend to be affiliated (Berscheid & Walster, 1978; Byrne, 1971). More recently, however, scholars have suggested that bridging ties are not necessarily weak ties (Gabbay, 1997; McEvily & Zaheer, 1999). High correlations are most likely found within bounded social systems, such as organizations. In the case of developmental networks, however, we have suggested that developmental ties may span organizational boundaries, thus reducing the possibility for interconnectedness. For example, although an individual may have a strong developmental relationship with a colleague, with a former boss, and with a neighbor, their being strong ties does not necessarily imply interconnection between them, since they emerge from very different social systems.

Opportunistic Developmental Networks

Opportunistic developmental networks differ from entrepreneurial developmental networks with respect to the strength of the relationships that make up the protégé's developmental network. Developmental relationship strength depends upon high levels of reciprocity, frequency of communication, and emotional closeness, all of which involve more than simply the receipt of mentoring assistance. If the protégé does not actively seek help from and cultivate developmental relationships, the multiple ties that he or she does happen to have are likely to be weak. Someone who is passively engaged in a developmental relationship may receive help when it is offered or may ask for help from others on occasion, but that individual may then refrain from reciprocating, initiating further, or expressing himself or herself fully to help the relationship grow, thus thwarting the development of strong interpersonal bonds. The term *opportunistic* reflects both an individual's openness toward receiving developmental assistance from multiple sources and his or her generally passive stance toward actively initiating and cultivating such relationships.

Traditional Developmental Networks

Traditional developmental networks are made up of few developers who have, on average, strong ties to the protégé. We expect that the prototypical case will be an individual who has a strong-tie relationship with a primary developer that is characterized by mutual respect, trust, and sharing. In addition, there may be one or more other developmental relationships that come from the same social context, such as an employer. We use the term *traditional*, since having one strong primary relationship (denoted in Figure 1 as D1) is generally assumed to be the classic case of mentoring. Because traditional developmental networks are less likely to be as large as either opportunistic or entrepreneurial developmental networks, we have depicted the ideal type of traditional developmental network as composed of one strong tie to one social system and one additional tie associated with that same social system. Since the overall strength of the ties that make up this developmental network is strong, it is likely that the developmental relationship(s) other than the

primary developmental relationship will also be strong or, at least, not all weak, as shown in Figure 1. Further, given that the ties are affiliated with the same social system, it is likely that there will be interconnection between them. That is, the likelihood of D1's knowing D2 is much greater in the traditional developmental network than it is in either the opportunistic or entrepreneurial developmental network configurations.

Whereas the information received from an opportunistic or entrepreneurial developmental network is likely to be nonredundant, the information received from a traditional developmental network composed of developers who come from the same social system is likely to be redundant or highly similar. Therefore, we expect to find relatively fewer differences in the types of developmental assistance provided by a set of developers making up a traditional developmental network, compared to an opportunistic or entrepreneurial developmental network.

Receptive Developmental Networks

Receptive developmental networks are made up of few weak-tie developmental relationships that come from the same social system. Since the relationships are based upon linkages to the same social system, the likelihood of D1 and D2's knowing one another is greater than would be the case for either the opportunistic or entrepreneurial developmental networks—similar to the traditional developmental network. The relationships between the developers D1 and D2 may be strong or weak. However, given the similarity attraction hypothesis (Byrne, 1971), we expect receptive developmental networks made up of weak ties between the protégé and his or her developers to exhibit less clique-like structures composed of strongly linked individuals (Burt, 1980) than will traditional developmental networks.¹

As in the traditional developmental network, the developers in a receptive developmental network are more likely to provide similar information, including similar attitudes and cognitive judgments (Carley, 1991). Yet, unlike the traditional developmental network, the support

¹ For an in-depth discussion of tendencies toward network closure, please see Coleman (1990).

provided to the protégé is less likely to be strong. Relatively consistent but weak support is the likely consequence of having a receptive developmental network. We use the term *receptive* to describe this developmental network, since it reflects the protégé's openness to receiving assistance and yet does not suggest that the protégé is actively initiating or cultivating developmental relationships.

FACTORS THAT SHAPE DEVELOPMENTAL NETWORKS

In line with structuration theory (Giddens, 1976), we expect that as patterns of developmental interaction emerge, they both constrain and facilitate individual-level action and behavior; this, in turn, affects the structural patterns of developmental interaction. The interactions that occur within the developmental network structure can modify that structure itself—as, for example, when an individual actively seeks to strengthen specific ties (cf. Monge & Eisenberg, 1987; Zeitz, 1980)—or work environment changes, such as organizational restructuring, can affect an individual's network structure (Burkhardt & Brass, 1990). Therefore, individuals can effect changes in their developmental networks and can simultaneously be constrained by their work environments in the types of developmental networks they are able to develop.

Figure 2 reflects these ideas. While we identify factors that shape developmental networks as "antecedents" and the implications for a protégé's career as "consequences," we also recognize—given the dynamic nature of structuration—that causes and consequences will often be indistinguishable (Monge & Eisenberg, 1987). Similar to prior organizational researchers, we recognize that the combination of work environment factors and individual-level factors affect network formation (Ibarra, 1993). Further, the interaction between these factors is likely to be highly complex as individuals both shape and are shaped by their social networks (cf. Pescosolido, 1992).

Neither in social network research nor in mentoring research have there been multivariate studies that cross levels of analysis. More generally, organizational researchers tend to shy away from such endeavors (Klein, Dansereau, & Hall, 1994; Meyer, Tsui, & Hinings, 1993; Rousseau, 1985). Although our framework is not all

inclusive, nor does it illustrate the full complexity of microlevel and macrolevel factors, it does highlight that both levels of analysis are essential to understanding the factors that shape developmental networks. Extending prior organizational research (e.g., Ibarra, 1993), we discuss the antecedents to the formation of a specific type of network—a developmental network—and we focus in particular on the consequences for protégés of having different types of developmental networks.

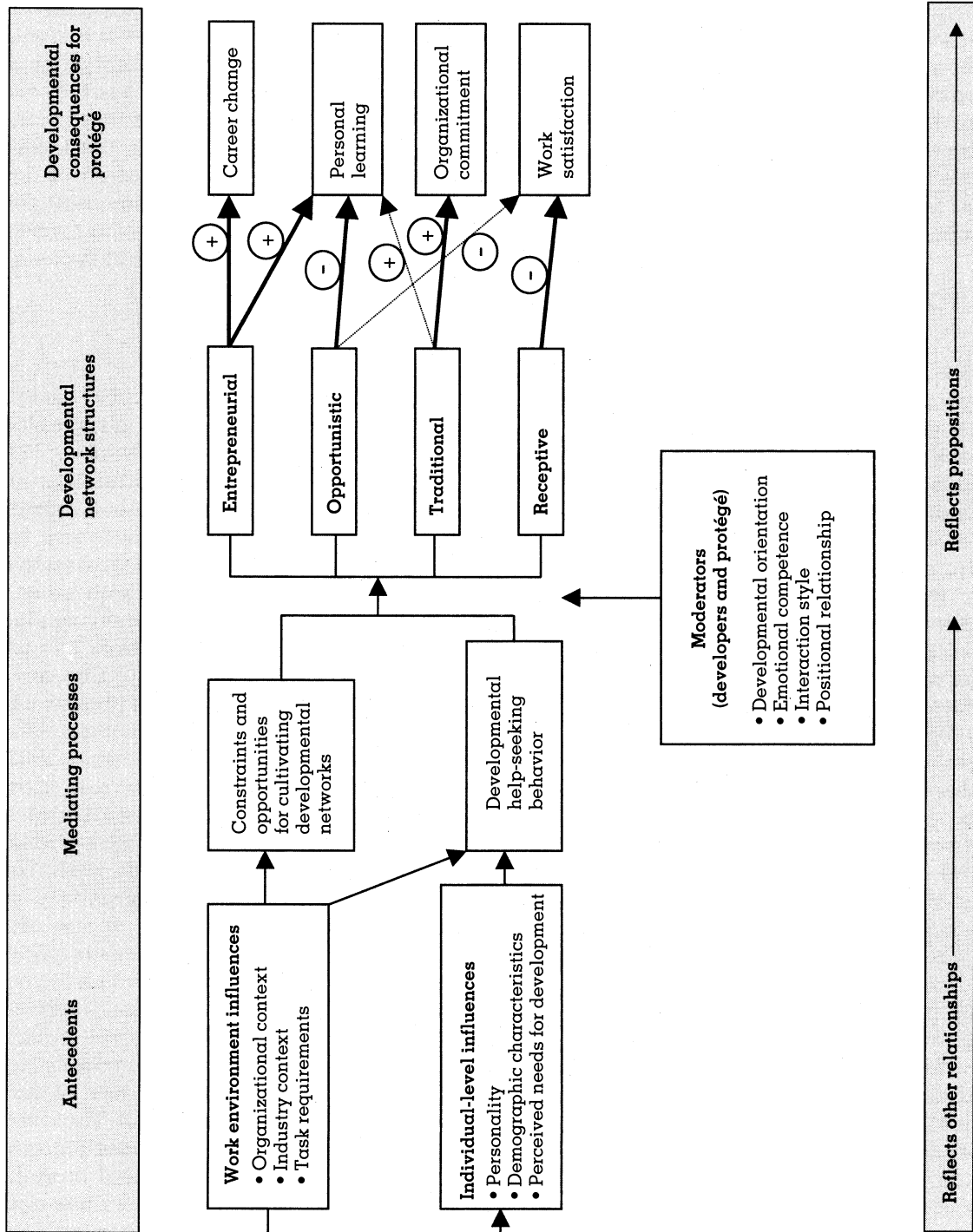
Work Environment Factors

Organization-level influences, such as the composition of an organization's workforce, can affect interaction patterns (Kanter, 1977) and, hence, an individual's opportunities and constraints for network development. Ibarra's (1992) study on men and women's networks in an advertising agency showed that women had social support and friendship ties with other women but instrumental ties with men, whereas men did not have such heterophilous ties and their ties were stronger. Underlying this work is the notion that the availability of similar ties in the formal structure of the organization affects constraints on network choices (Ibarra, 1993).

In other research, Burkhardt and Brass (1990) found that changes in organizational technology affected interaction patterns within an organization (see also Burkhardt, 1994). The availability of information technology, such as electronic mail, affects the accessibility and probability of interaction (Fulk, Steinfield, Schmitz, & Power, 1987), as well as the quality of interactions (Sproull & Kiesler, 1986). Also, research on physical and temporal proximity has long suggested that spatial proximity facilitates the initiation and maintenance of ties (Festinger, Schachter, & Back, 1950). Thus, we expect that many aspects of the formal organizational context, as well as the informal organizational context, such as the implicit values and norms that shape individual behavior, will affect an individual's opportunities and constraints on cultivating multiple developmental relationships, as depicted in Figure 2.

Beyond organization-level influences, we expect that aspects of the industry and/or task can shape the cultivation of developmental networks (Baker, 1992). Since developmental networks span organizational boundaries, such

FIGURE 2
Antecedents and Consequences of Developmental Networks



considerations are relevant. For example, working in a "cosmopolitan" or outward-focused (cf. Gouldner, 1957, 1958) industry like the entertainment industry can facilitate the development of multiple extraorganizational ties, increasing the diversity of one's developmental network (Ensher, Murphy, & Sullivan, 2000). Individuals who are working in rapidly changing and dynamic industries and/or are working on tasks that require ample time in extraorganizational activities, such as attending conferences and professional associations and/or engaging in client work, will naturally come in contact with a greater variety of potential developers. Similarly, individuals serving boundary-spanning roles (e.g., Daft, 1995) will have expanded opportunities for network development. Such industry contexts and task characteristics should broaden rather than narrow an individual's work-related discussion network and, in turn, his or her opportunities for cultivating multiple, diverse developmental relationships.

Individual-Level Factors

Whereas aspects of the work environment primarily affect an individual's constraints and opportunities for developmental network cultivation, individual-level factors affect developmental help-seeking behavior, as shown in Figure 2. Research on helping behavior has shown that individuals are more likely to seek help when they feel psychologically safe—that is, when there is minimal threat to one's ego or sense of self (Fisher, Nadler, & Whitcher-Alagna, 1982; see Wills, 1991, for a review). For example, Higgins (1999b) has shown that perceptions of evaluation during novel learning situations deter help-seeking behavior. Nadler and Fisher's (1986) work suggests that there are interactive effects associated with threats to the self and perceptions of control such that when the need for help is high and individuals enjoy perceptions of control, they will be more likely to seek out help; those who do not have these perceptions will enter a helpless state. Perceptions of control may stem from personality characteristics, such as self-esteem and achievement motivation (Nadler, 1991). Other researchers have found direct effects for such personality characteristics as shyness on help-seeking behavior (DePaulo, Dull, Greenberg, & Swaim, 1989).

In a related line of research, studies on feedback-seeking behavior have shown that feedback-seeking decreases as the organizational context in which the feedback is sought becomes more public and more evaluative (Ashford & Northcraft, 1992; see Levy, Albright, Cawley, & Williams, 1995, for a review). Similar to the help-seeking literature, the feedback-seeking literature indicates that there are competing motives at play, including the desire for feedback and the desire to maintain a positive impression (Ashford & Tsui, 1991; Morrison, 1993). When an individual's ability to cope with negative feedback is strengthened and the need to maintain positive self-esteem is lessened, the individual is more likely to seek feedback (Trope & Neter, 1994). Specific aspects of the organizational context, such as supervisor supportiveness and peer reactions, have also been associated with feedback-seeking motives and behaviors (Williams, Miller, Steelman, & Levy, 1999). Therefore, research on both help-seeking and feedback-seeking has shown that individual-level factors, as well as some work environment factors, can engender feelings of threat that deter an individual from seeking out needed help and feedback.

In addition, individual-level demographic factors, such as nationality and gender, also may affect both the range of developers as well as the amount of developmental assistance sought. For example, Japanese workers tend to prefer strong multiplex ties, whereas French employees tend to form weak ties at work (Monge & Eisenberg, 1987). In recent cross-national research, scholars found effects for nationality on help-seeking attitudes, beyond well-established factors such as gender: individuals from the United States and Israel were significantly more willing to seek help than were those from Hungary (Cohen, Guttman, & Lazar, 1998). These scholars stress the underlying importance of nationality in affecting the behavioral patterns and coping mechanisms individuals prefer that may be attributable to differential features of the cultures studied, such as religious and political orientation. There is also substantial evidence across help-seeking studies that women tend to seek help more often than men (e.g., Fischer, Winer, & Abramowitz, 1983).

Finally, an individual's perceived needs for developmental assistance, perhaps affected by prior experiences, may affect the likelihood that

the individual will seek developmental assistance and the extent to which he or she will seek help broadly (Kram, 1996; Miller & Stiver, 1997). Individuals who have received helpful support in the past from colleagues may be more prone to turn to intraorganizational sources for developmental assistance. Alternatively, individuals with negative prior experiences may choose not to seek out developmental relationships at all, preferring to "go it alone."

Moderating Factors

Several factors may moderate the effects of both constraints and opportunities for cultivating developmental networks and individuals' developmental help-seeking behavior on the types of developmental network structures that result. We highlight four here—two that have been studied previously and two that are relatively new to the literature on careers and adult development. We offer propositions regarding the latter two moderating factors.

First, as prior social network scholars have suggested, an individual's interaction style can affect the types of networks and relationships the individual is able to form (Ibarra, 1993). If, for example, the protégé's interaction style leaves the developer feeling bothered, the protégé's help-seeking is unlikely to yield strong-tie relationships. And if, for example, the developer's interaction style leaves the protégé feeling patronized, a strong-tie relationship is also unlikely to form. Second, in prior social network research, scholars have found that the perceived and/or formal power of an alter (here, developer) affects the importance that ego (here, protégé) places on the alter's opinions (Brass, 1984). Therefore, the developer's positional relationship or "power" vis-à-vis the protégé may affect the quality of the developmental relationships that form (Ragins, 1997a).

Third, we expect the protégé's orientation toward career development to moderate the effects of help-seeking on the strength of the developmental relationships that result. Individuals who seek out developmental relationships for the primary purpose of furthering their own careers will tend to exhibit help-seeking that can be described as instrumental, strategic, and, in the extreme instance, self-centered. However, individuals who actively engage in seeking out developmental relationships for

both career and psychosocial assistance will tend to be focused on personal growth and learning that extend beyond immediate concerns regarding career advancement (Miller & Stiver, 1997). With the latter orientation, the protégé is more apt to fully express himself or herself with others (Kahn, 1990) and to act in an authentic (Baxter, 1982) and nondefensive manner (Gibb, 1961).

These two forms of engagement in developmental relationships reflect different perspectives on development. The latter, more expressive form of engagement closely resembles recent relational or intersubjective models of adult development (Jordan, 1997; Jordan et al., 1991; Miller, 1986). Originally based on research on women's psychology (e.g., Gilligan, 1982; Miller, 1986), the perspective that individuals grow in connection to others has recently been touted as critical to understanding human development (Fletcher, 1996; Miller & Stiver, 1997). It is likely that both protégés and developers will have a primary approach to development, either emphasizing one or the other type or a combination of both. We speculate that when the latter, more expressive—as opposed to instrumental—form is enacted, the relationships that develop are likely to be quite strong. Thus, we offer the following proposition.

Proposition 1: When the protégé and his or her developers have an expressive as opposed to instrumental orientation toward career development, strong-tie developmental relationships are most likely to form, yielding either traditional or entrepreneurial developmental networks.

Fourth, we also expect that the protégé's emotional competence will affect whether the protégé's help-seeking behavior results in strong-tie relationships. Without essential social competencies, such as empathy and conflict management skills, relationships might be thwarted before a high level of trust and mutuality is established. Similarly, without the capacity for self-awareness, the protégé is unlikely to be able to build relationships that will be responsive to his or her developmental needs (Goleman, 1995; Kram & Cherniss, in press). Thus, many of the personal and social competencies originally defined by Goleman (1995, 1998) can enable individuals to cultivate and sustain re-

relationships with developmental potential. In the absence of these competencies, protégés may seek out developmental assistance, but the ties they form will be unlikely to exhibit the mutuality and reciprocity that are characteristic of strong-tie relationships.

Further, without emotional competence on the part of the developer(s), strong-tie developmental relationships are unlikely to form. As Allen, Poteet, and Burroughs (1997) have found, people who are particularly high in other-oriented empathy are more likely to engage in mentoring relationships (see also Allen et al., 1997; Aryee et al., 1996; and Ragins & Cotton, 1993). The capacity for self-awareness may increase a developer's ability to benefit from the relationship, leading to reciprocity and mutuality that characterize strong interpersonal relationships (Goleman, 1995; Miller & Stiver, 1997). Therefore, we expect the following to be true.

Proposition 2: The greater the protégé's and his or her developer(s)' emotional competence, the more likely strong-tie relationships will form, yielding either entrepreneurial or traditional developmental networks.

Although other moderating factors could be considered, the two we highlight here—developmental orientation and emotional competence—provide a useful complement to the social structural perspective we have proposed thus far. They suggest that in addition to social structural positions vis-à-vis one another, the ways people interact play a critical role in how developmental relationships are likely to unfold (e.g., Kram, 1985; Thomas, 1993).

IMPLICATIONS FOR THE PROTÉGÉ'S CAREER

Here we consider the implications for a protégé's career of having different types of developmental networks. As before, we note our dialectical position: while certain developmental networks and protégé career outcomes may tend to go together, we recognize that these tendencies reflect a continuous and interactive process (Zeitz, 1980). Thus, consistent with prior social network research, we consider "consequences" for protégés of having different developmental networks and yet recognize that protégés may act upon and change the structure of their developmental networks (cf. Brass, 1995).

We consider four protégé career outcomes that are of significance for the protégé's personal and professional development: career change, personal learning, organizational commitment, and work satisfaction. These are also important career outcomes for organizations since they concern the mobility and professional development of an employer's workforce (Arthur & Rousseau, 1996; Hall, 1996; Mirvis & Hall, 1994). Our propositions reflect both positive and negative associations among different types of developmental networks and protégé career outcomes. Although we note that these developmental outcomes are not orthogonal to one another, they are conceptually distinct and so may be considered separately. We focus on these four since we expect to find strong effects with respect to each, enabling us to differentiate one developmental network from another.

Career Change

Uncontrollable events, such as mergers, acquisitions, or downsizings, can lead to changes in an individual's career; we focus here on change that occurs as a result of the protégé's own initiative. Recent research has shown that the greater the range of developers an individual has, the more likely the individual is to change careers—that is, to change organizations, to change jobs, and to believe that the move was a "career change" from what he or she did before (Higgins, 1999a). We propose that individuals with entrepreneurial developmental networks will be more likely to experience change along any one of the aforementioned dimensions. Further, we do not take a position as to whether the increasing occurrence of change will necessarily be positive or negative for the protégé; such evaluations likely will depend upon the protégé's subsequent experiences, developmental opportunities, and personal work/life situation.

Receiving career assistance from a variety of developers should increase the individual's information, resources, and access to a variety of career possibilities (cf. Burt, 1992). Moreover, since strong ties, as opposed to weak ties, are likely to be highly motivated to help the protégé (Krackhardt, 1992), we expect that the sort of exposure and visibility provided to the protégé will be significant, affecting not only the protégé's opportunities for change but the viability of

such opportunities as well. Further, when this information is conveyed by strong-tie relationships, it is most likely to be influential because of the repeated interaction and emotional closeness associated with such ties (Rice & Aydin, 1991). Therefore, individuals with entrepreneurial developmental networks are also more likely to act on the advice they receive—to actualize the options provided to them by their developers (Higgins, 1999a).

Research on group decision making supports this association as well. Organizational scholars have found that diversity among group members leads to enhanced information processing that facilitates the consideration of alternative courses of action (Tsui, Egan, & O'Reilly, 1992; Tsui & O'Reilly, 1989). Although a protégé's developmental network is certainly not a "real" decision-making group (e.g., Hackman, 1987), the underlying theory still applies. Even if the protégé does not receive actual job or career opportunities from his or her developers, the exposure to such different and strong perspectives is likely to lead to greater cognitive flexibility (Nahapiet & Ghoshal, 1998) and, subsequently, to an increased probability that the individual will decide to change careers in the future. Just as diversity within teams has been associated with innovative decision making due to the variety of perspectives brought to the group by different individuals (Hambrick, Cho, & Chen, 1996), so, too, may diverse developmental networks increase the perspectives an individual is exposed to, affecting the likelihood of change. Thus, we offer the following.

Proposition 3: Individuals with entrepreneurial developmental networks are more likely to experience change in their careers than individuals who have opportunistic, traditional, or receptive developmental networks.

Personal Learning

Personal learning as a developmental consequence for a protégé is a larger umbrella term for the following outcomes: (1) increased clarity of professional identity (one's unique talents and contributions at work); (2) increased clarity of personal values, strengths, and weaknesses; and (3) increased awareness of developmental needs, reactions, and patterns of behavior

(Kram, 1996). Clearly, an individual can increase his or her own sense of clarity in these areas in a variety of ways, including reading books, engaging in research and writing, and receiving formalized feedback at work. Additionally, organizational scholars such as Mirvis and Hall (1994) have suggested that developmental relationships are critical to an individual's ability to find his or her own "path with a heart" (Peck, 1993): a process in which the individual integrates and learns from diverse work and life experiences. Trusted developmental relationships can serve as emotional anchors that facilitate this learning process.

First, we expect that individuals with strong-tie developmental relationships will experience more personal learning than those with weak-tie relationships. Strong-tie developmental relationships are most likely to provide significant amounts of psychosocial assistance because of the intimacy and frequency of communication that characterize such ties. Psychosocial functions, such as role modeling, acceptance and confirmation, counseling, and friendship, are critical to the protégé's own sense of competence, identity, and effectiveness in a professional role (Kram, 1985). Although career functions such as protection and sponsorship may aid an individual's career advancement, an individual's clarity of identity and understanding of developmental needs and personal values are most likely to be realized through developmental relationships that are characterized by mutual trust, interdependence, and reciprocity (Kram, 1996). Therefore, traditional and entrepreneurial developmental networks should generally be associated with greater personal learning than receptive or opportunistic developmental networks.

Second, since high levels of network diversity increase an individual's access to a variety of information and perspectives (Papa, 1990), we expect individuals with entrepreneurial developmental networks to experience greater learning than those with traditional developmental networks. So, although a protégé is likely to learn a great deal from engaging in a traditional developmental network, the lack of range among his or her developers may limit the exposure to and therefore the breadth of personal learning he or she experiences. (We indicate this weaker association between traditional de-

developmental networks and personal learning with a dotted line in Figure 2).

Research on organizational demography as well as social networks supports this line of thinking. In general, scholars agree that the diversity of a group increases the range of knowledge, skills, and contacts available, thus enhancing problem-solving capabilities (e.g., Ancona & Caldwell, 1992; Bantel & Jackson, 1989; Pelled, Eisenhardt, & Xin, 1999; for a review see Williams & O'Reilly, 1998). In a similar fashion, organizational scholars have recently suggested that networks that are sparse and those that are rich in strong ties will positively affect performance on exploration (versus exploitation) types of tasks that involve acquiring new knowledge (Hansen, Podolny, & Pfeffer, 2000). Here, the greater the number of social systems represented by an individual's developmental network, the greater the variety of exposure he or she has, increasing the range of knowledge obtained regarding different industries, jobs, organizations, or markets and, hence, the possibilities for learning. When this information is conveyed by strong-tie relationships, it is most likely to be based upon a greater understanding of the protégé's developmental needs due to the frequency of communication and emotional closeness between the two individuals, increasing the depth of personal learning. Therefore, protégés who have strong ties with a wide range of developers—that is, an entrepreneurial developmental network—should experience relatively high levels of personal learning.

Proposition 4: Individuals with entrepreneurial developmental networks are more likely to benefit in terms of their own personal learning than individuals with traditional, opportunistic, or receptive developmental networks.

In contrast, we expect that receiving developmental assistance from developers to whom a protégé does not feel emotionally close and who are from a diverse set of social systems will be detrimental to the protégé's personal learning. As recent social network research has indicated, there is no reason to assume that others are necessarily motivated to help the focal person (here, a protégé); this is only likely to be the case when the ties between the two individuals (here, the developers) are strong (Gabbay, 1997; Krackhardt, 1992). Re-

ceiving assistance from individuals who are not highly motivated to act on the protégé's behalf is unlikely to be as beneficial to the protégé's personal learning, since those individuals are less engaged in the developmental relationships themselves (Kram, 1996). In weak-tie developmental relationships, the lack of intimacy prevents the depth of information transferred regarding the protégé's own strength and weaknesses, since personal coaching and feedback require a certain level of trust and risk-taking behavior (Hall, Otazo, & Hollenbeck, 1999; Pryor, 1994). Further, the infrequency of communication and lack of shared heuristics for expressing thoughts and ideas characterizing weak-tie relationships reduce the developers' ability to help the protégé identify patterns of behavior and developmental needs (cf. Hansen et al., 2000). Individuals with such developmental networks may need to turn to alternative, less interactive sources (e.g., books) in order to experience significant personal learning.

Therefore, although an opportunistic developmental network may provide great breadth of information and resources to a protégé, with developers' limited understanding of what would truly help the individual grow and develop, these relationships might actually leave the protégé confused rather than increasingly clear regarding his or her own needs, values, strengths, and weaknesses. And with less mutuality and understanding on the part of the developers, the protégé will likely be less willing to be vulnerable and open to exploring different opportunities and identities with them (Miller & Stiver, 1997). The capacity for self-reflection, empathy, and active listening are essential to an individual's ability to grow in connection with others (Fletcher, 1996; Jordan et al., 1991; Miller, 1991). Thus, receiving diverse information and access from individuals who are weakly tied to the protégé may hinder rather than facilitate personal learning.

Proposition 5: Individuals with opportunistic developmental networks are less likely to experience personal learning than individuals with entrepreneurial, traditional, or receptive developmental networks.

Organizational Commitment

We expect employees with traditional developmental networks to be relatively highly committed to the organizations in which they work. Organizational commitment refers to the psychological bond between a member and his or her employer that may be characterized by emotional, behavioral, and cognitive consistency (Mowday, Steers, & Porter, 1979). One of the key aspects of organizational commitment is a member's strong belief in and acceptance of the organization's goals and values (Mowday, Porter, & Steers, 1982; Pratt, 1998). Both attitudes and cognitive judgments tend to be similar among actors with direct linkages and interaction (Burkhardt, 1994; Carley, 1991; Salancik & Pfeffer, 1978). By extension, we expect individuals with developers who come from the same social system, such as an employer, to possess relatively more similar information and attitudes and, hence, to provide more consistent messages and/or advice to the protégé than developers who come from different social systems.

In the case of the traditional developmental network, similar information is provided in strong-tie relationships, yielding relatively consistent guidance. Receiving high levels of developmental assistance has been found to be positively associated with intentions to remain with a firm and, in turn, to one's commitment to an employer in the long run (Higgins & Thomas, in press). To the extent that such assistance comes from developers who work in the protégé's own firm, as is likely the case with a traditional developmental network, the similarity in attitudes he or she experiences will tend to be aligned with the goals of that organization, increasing the protégé's normative commitment to the organization (Allen & Meyer, 1990). Indeed, in prior research scholars have found that relational proximity—the extent to which individuals communicate directly and frequently with one another in a firm—is positively associated with organizational commitment (Hartman & Johnson, 1989). Thus, while it is possible that all of the protégé's strong-tie intraorganizational developmental relations might convey negative rather than positive organizational messages and, for example, suggest that the protégé leave the organization, we expect such instances to be rare. In general, we expect the similarity in developer attitudes to reflect positively on the or-

ganization, increasing the protégé's positive regard for the firm and, hence, affective commitment as well (Meyer & Allen, 1984).

We also expect protégés with traditional developmental networks to be more involved in the organization, leading to behavioral forms of organizational commitment (Kiesler, 1971). Sponsorship, providing challenging work assignments, and exposure and visibility are all important forms of career assistance provided by developers who have a strong interpersonal bond with a protégé (Kram, 1985). Since all of the protégé's ties in the traditional developmental network are intraorganizational, such exposure and visibility are likely to lead to further ties within the upper echelons of the organization (Dreher & Ash, 1990), increasing the likelihood that the protégé will be ready and willing to exert considerable effort on behalf of the organization—that is, behavioral organizational commitment (Mowday et al., 1982). Finally, since individuals with traditional developmental relationships are not likely to have extraorganizational ties, they should also have fewer opportunities to leave, increasing their perceived costs of leaving their firm—what scholars have called "continuance commitment" to an organization (Allen & Meyer, 1990).

Proposition 6: Individuals with traditional developmental networks will experience higher levels of organizational commitment than individuals with entrepreneurial, opportunistic, or receptive developmental networks.

Work Satisfaction

We expect protégés with receptive or opportunistic developmental networks to experience relatively lower levels of work satisfaction than individuals with traditional or entrepreneurial developmental networks. With weak-tie developmental relationships, a protégé is unlikely to experience the acceptance and confirmation of one's work that come through high levels of meaningful interaction with others (Kram, 1985). Having meaningful social connections with co-workers tends to increase an individual's "psychological presence" and engagement in the work he or she does (Kahn, 1990). Receiving high levels of psychosocial support, even from just a single developmental relationship, has been as-

sociated with high levels of satisfaction at work (Higgins, 2000). In receptive and opportunistic developmental networks, the protégé does not have even one such tie, which leads to low levels of work satisfaction.

Furthermore, we expect that those with receptive developmental networks will be even less satisfied at work than those who have opportunistic developmental networks (as shown in Figure 2). Satisfaction with one's work or job generally is positively associated with the individual's sense of the probability of goal success (Locke, 1976; see Roberson, 1990, for a review). Without high levels of career and psychosocial support from within one's own organization, individuals are likely to feel less confident that they are valued for their own abilities, thus decreasing their sense of potential (Higgins & Thomas, in press). Indeed, we expect that having intraorganizational developmental relationships with people to whom one is not emotionally close might actually increase, rather than decrease, the amount of stress an individual experiences at work. The absence of psychosocial support that characterizes such weak intraorganizational ties may signal a lack of enthusiasm, or at least uncertainty, regarding the protégé's potential, increasing his or her stress at work. An individual who is stressed may become withdrawn and may not perform up to his or her potential (Jamal, 1984), leading to a negative spiral that decreases protégé satisfaction at work.

Proposition 7: Individuals with receptive developmental networks are more likely to experience lower levels of work satisfaction than individuals with traditional, entrepreneurial, or opportunistic developmental networks.

CONCLUSION

Our purpose in this article has been to stimulate research and thinking about the multiple relational sources from which individuals receive mentoring assistance in their careers. Our review of the theory and research on mentoring and careers suggests that a reconceptualization of mentoring is needed. In the mentoring literature we find a theoretical readiness to consider alternative forms of mentoring, and in the career

research we find evidence to suggest that a reconsideration of the sources of developmental relationships and the context in which they occur is called for. In this article we capitalize on this momentum by offering theory and propositions in which mentoring is regarded as a multiple relationship phenomenon—as a developmental network. The typology we propose (Figure 1) offers a starting point for understanding different types of developmental networks individuals form as they navigate their careers. We believe that, in conjunction with existing research on mentoring, this conceptual framework has the potential to explain individual behavior in and across organizations.

Our framework, illustrating the multiple factors that shape the emergence of developmental network types (Figure 2), and our propositions, associated with different developmental network configurations, offer researchers a specific agenda for future research. In addition, our intent has been to define several new lines of inquiry. For example, we have focused on informal relationships in this article, but one could extend our propositions to consider the link between formal and informal developmental relationships as well. It might be that formal programs offer individuals opportunities to have weak-tie relationships that, over time, might develop into more mutually reciprocal, strong, and informal "mentor" quality relationships. In future research scholars could also examine the extent to which formal programs enhance an individual's sense of personal control, which, as we have suggested, can positively affect developmental help-seeking. Thus, one important benefit of formal mentoring programs may be to affect how actively individuals seek out and cultivate multiple developmental relationships.

Further, although in the present research, as in prior research, we have emphasized implications for the protégé's career, researchers could employ our framework to study career implications for developers. Taking the developer's perspective, researchers could examine the extent to which different types of developmental networks facilitate a sense of generativity, personal satisfaction, and personal learning. Although not often studied, these career outcomes are likely to be more salient for developers than outcomes, such as advancement, that are often studied in research on mentoring. Moreover, examining whether the developer(s)' preferences

for certain types of developmental networks complement the preferences of the protégé may lend insight into the extent to which developmental relationships grow into mutually beneficial and reciprocal relationships. Just as prior research has shown that similar communication strategies between a developer and a protégé lead to effective interaction (Thomas, 1993), it may be the case that similar preferences for developmental network structures affect the quality of protégé-developer interactions.

Additionally, one could explore other protégé career outcomes, such as protégé career advancement, that may be associated with certain types of developmental networks. Important contingencies may hold. For example, it could be that having a traditional developmental network in a start-up organization in a new market (such as e-commerce) might derail one's career, because such an environment would reward external affiliations. Moreover, since social network researchers have found that men and women benefit from having different types of social networks, gender may moderate the effects of developmental network structures on certain protégé career outcomes. In sum, there may be important factors that moderate the effects of developmental network structures on the career outcomes proposed here, as well as on other outcomes, such as career advancement. These possibilities remain for future research.

Organizational scholars could also engage in longitudinal research to understand if and how developmental network structures and protégé career outcomes change over time. Such work would enable researchers to attend to issues of causality that we, like scholars of social network research, have suggested are highly complex and difficult to tease apart (Brass, 1995). Even simply studying the stability of developmental network structures would further the present research. Only recently have scholars begun to tackle the issue of the dynamics of social networks (e.g., Morgan, Neal, & Carder, 1996; Wellman, Wong, Tindall, & Nazer, 1997). Our typology necessarily presumes some stability in social structures, and yet, consistent with prior social network research (Ibarra, 1993), we have acknowledged that individuals' networks are subject to constraints that are beyond the protégé's control. Understanding, for example, whether individuals tend to "replace" relationships at the dyadic level and yet maintain a basic and pre-

ferred developmental network structure during different career stages would contribute to both mentoring and social network research (Wellman et al., 1997). Understanding if and how developmental networks change from, for example, opportunistic to entrepreneurial developmental networks may signify other different and yet important ways that protégés can personally learn.

While we have investigated strong- and weak-tie developmental relationships in this article, researchers could move further down our continuum to study dysfunctional developmental relationships. For example, one could study the conditions under which individuals cultivate relationships they perceive as developmental but that actually undermine their ability to learn or develop professionally (Higgins & Nohria, 1999). Or, in the more extreme case, one could study relationships that are actually unhelpful (Scandura, 1998)—those in which others intentionally derail a protégé's career—and the costs of such relationships in the context of an individual's having a particular type of developmental network.

In order to test the specific propositions set forth in this article and, more generally, to study mentoring as a multiple relationship phenomenon, researchers will need to attend to both network- and dyad-level considerations. At the dyadic level, similar to work on career development (e.g., Kram, 1985; Thomas, 1993) and on adult development (e.g., Jordan, 1997; Levinson et al., 1978; Miller & Stiver, 1997), researchers will need to assess different qualities of developmental relationships. However, to the extent that these developmental networks consist of sets of dyads, the composition of the entire developmental network must be accounted for, as social network research informs us. Thus, empirically studying mentoring from a developmental network perspective will require different and complementary research methods.

For example, identifying an individual's developmental network will require modifying traditional mentoring questions in at least three ways. First, respondents should be allowed, even encouraged, to offer multiple names of developers. Second, respondents should be encouraged to think broadly (i.e., beyond organizational boundaries) when identifying developers. Also, although we have emphasized cross-organizational developmental relation-

ships as constituting developmental network "diversity" here, other boundaries may also warrant study: in large, highly diversified organizations, having developmental relationships that cross divisions or even countries may constitute the appropriate level of analysis. Third, consistent with social network research, the name-generator device should ask respondents to consider relationships they have had over the past year (Burt, 1992); such relationships may be considered "current" and, hence, provide the researcher with data on simultaneous (rather than sequential) relationships—that is, a network.

Although in some prior survey research scholars have made the first modification (e.g., Baugh & Scandura, 1999; Higgins & Thomas, in press), studies of the social structure of individuals' developmental networks have been rare, as we discussed. This may be due, in part, to the lack of prior research methods for conducting such analysis. Today we are fortunate to be able to draw on social network tools and techniques to better understand the structure of individuals' multiple developmental relationships. Although we focus on one measure of developmental network diversity—range—in this article, other measures, such as network density, could be used that still tap into the underlying dimension of redundancy of information flow (for reviews, see Burt, 1983; Krackhardt, 1994; and Marsden, 1990).

Fully gauging the extent to which developmental relationships exhibit the mutuality and reciprocity that are characteristic of strong ties will require in-depth qualitative research, reflecting the research approach in some of the foundational work on mentoring (e.g., Kram, 1985; Levinson et al., 1978) and the clinical work underlying the development of relational theory (e.g. Jordan et al., 1991; Miller & Stiver, 1997). Interview questions could be used to generate accounts of how each of the protégé's relationships began and then to generate illustrative examples of how the protégé and his or her developers interacted, including openness to feedback-giving and -receiving. Additionally, survey methods could be used to assess the frequency of communication and affective closeness between the protégé and his or her developers, consistent with prior social network research (for a review see Marsden & Campbell, 1984).

We recognize that employing research strategies that cross levels of analysis places a greater burden on those who wish to conduct research on mentoring. Yet we believe the incremental costs incurred will provide tremendous value to individuals, organizations concerned with creating a developmental culture, and researchers alike. For individuals, understanding the opportunities and constraints involved in developing different developmental networks should lend insight into past behaviors and future career development opportunities that they might want to pursue in today's environment. Additionally, as suggested, individuals and organizations could gain insight into both positive and negative implications of developing or encouraging different developmental networks. Practical implications of regarding mentoring as a multiple relationship phenomenon are certainly more complex, yet at the same time more enlightening, as they point to multiple possible sources and configurations of support.

For researchers, this added complexity mirrors changes in other areas of research in organizational behavior. Scholars have noted that, in addition to the increasing pressure to respond to competitive conditions and to meet ongoing customer demands, organizations must now also contend with such complex organizational forms as virtual organizations, clashing cultures as merger and acquisition activity increases, expanding international and global economies, and the emergence of ever-changing and omnipresent information technologies. We expect that these changing conditions at the organizational as well as market levels will have similarly frenetic implications for individuals and their careers. Individuals will increasingly look beyond organizational boundaries to multiple sources for mentoring support as they navigate their careers. There will always be an important place both in research and in practice for traditional mentoring relationships, but our review of the career and mentoring literature suggests that this traditional model is but one configuration individuals may expect to experience in their careers. Just as the boundaries of organizations and careers today have come under review, so too is it time to reconsider the boundaries of mentoring.

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