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**PERSONALITY AND SOCIAL NETWORKS AT WORK:
IMPLICATIONS FOR MANAGERIAL PERFORMANCE,
COMMITMENT AND NETWORK PERCEPTION**

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**PERSONALITY AND SOCIAL NETWORKS AT WORK:
IMPLICATIONS FOR MANAGERIAL PERFORMANCE,
COMMITMENT, AND NETWORK PERCEPTION**

A Thesis in Business

by

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SUMMARY

This dissertation is about social relations in organizations and their implications for individuals. The dissertation is divided into three parts. In the first part, I analyze the effects of social structures and individual structural positions on work performance. In particular, I hypothesize that occupying central positions in the advice network and having diverse partners enhance individual performance. In addition, I compare the effects exercised by social relations to the effects exercised by self-monitoring, a personality trait that research on organizational behavior has shown to be an important antecedent of some organizational outcomes (such as job satisfaction, turnover, and self-evaluation).

In the second part, I analyze the effects of social relations and self-monitoring on the degree of organizational commitment of the members of the organization. I hypothesize that low self-monitors (i.e. people who score low on the self-monitoring dimension) tend to develop a higher degree of commitment to their organization than high self-monitors. In particular, I hypothesize that the relationship between self-monitoring and commitment is mediated by the position that individuals occupy in the social network.

Finally, in the third part I analyze the effects of structural positions and self-monitoring on the degree of accuracy with which individuals perceive their social networks. I hypothesize that individuals who occupy more central positions in the network and have a higher self-monitoring orientation have more accurate perceptions of the overall structure of the network than individual who occupy more marginal positions and have a lower self-monitoring orientation.

I address all my research questions and test my hypotheses in the context of a large multinational company.

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CHAPTER 1
GETTING ADVICE FROM THE RIGHT PEOPLE AT WORK:
SELF-MONITORING, ADVICE RELATIONS AND WORK
PERFORMANCE

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ABSTRACT

Building on previous research on consequences of social networks for individual performance, I developed a model based on the ideas that achieving a high performance is not only a matter of having ties or occupying advantageous structural positions, but also of having ties to a pool of differentiated partners, and that individuals high in self-monitoring are more likely to develop such ties than individuals low in self-monitoring. More specifically, I hypothesize that partners' diversity in the advice network is as much important to work performance as occupying central structural positions, and that high self-monitors, by nature of their personality, are more likely to form ties to such diverse partners, and occupy such positions, than low self-monitors. I explore my hypotheses in the context of the advice network of 45 managers constituting the top management team of a large multinational company. Results reveal that high self-monitors are more active in seeking advice and tend to have more advisors than low self-monitors. However, this only fact does not help them get higher performance levels. Rather, work performance is positively affected by the occupation of brokering positions in the network, and is negatively affected by partners' diversity with respect to organizational unit, but neither variables depend of the self-monitoring orientation. As a result, self-monitoring does not seem related to work performance: High self-monitors do not systematically differ from low self-monitors with respect to the network variables which have an effect on work performance.

INTRODUCTION

A considerable amount of research has shown the importance that social relations play in our life. As individuals, we are embedded in networks of interpersonal social relations in every field of our existence (e.g., in family, at school, at work) and we spend a large portion of our time relating with others. Obviously, these relations differ both for the length and for the importance they play in our life. Some of these relations have a lifespan of just few months or years while others last and accompany us during our lifetime; moreover, some are quite insignificant for us (e.g., as when we find us involved in relations with people towards we feel indifference), while others have a great deal of personal meaning. Besides evolving with us during the course of our existence from childhood to elderly, these networks of relations sometimes overlap across periods of time, as when one of our colleagues is also a friend of us, or as when a partner in life (e.g. our husband or our wife) is a partner in business as well.

As inhabitants of these many and overlapping social worlds, we experience every day the pleasures and pains of this condition. Social relations may provide us with support, help and cooperation we may need in accomplishing task or achieving goals, they may help us getting valuable information, make us feel part of the larger context in which we live or work, foster our personal growth and professional advancement, and ultimately provide us with the warm and affection we need as human beings.

In the same way we can suffer from the lack of some relations or the existence of negative ones. As having positive relations with people who are stable sources of valuable information, support or material aid may significantly

contribute to our success in many spheres of our life, not having such relations may be equally detrimental to the accomplishment of our objectives and ambitions. Moreover, finding oneself involved in relations with people of hindrance to our goals or deliberately acting in a non-cooperative behavior, may have effects as much negative as those associated with the absence of positive relations.

The pervasive presence of social relations in individuals' life and the recognition that individuals spend a large proportion of their lives at work, has lead a large group of organizational scholars to investigate the power and the effects of such relations for individuals in the workplace. The bulk of this research has concentrated in particular on the consequences of positive social relations, while the consequences of negative relations have received much less empirical attention. Exceptions are represented by studies as those by Baldwin, Bedell and Johnson (1997), Labianca and Brass (2006), Labianca, Brass, and Gray (1998) and Sparrowe, Liden, Wayne, and Kraimer (2001). The reason why negative or adversarial relations have been quite neglected is probably connected to their sensitive nature, which may make collecting data on such relations a quite difficult task. For example, MBA students provided by Baldwin et al. (1997) with a social network questionnaire asking them to indicate their adversarial relations with other MBA students in the same program, reported a network remarkably sparser than those reported in response to questions about their friendship or communication relations. Given the high competition which existed among the students, the researchers could not exclude without any doubt the possibility that such a low density in the adversarial network was due to the reluctance of students to report their negative ties.

Notwithstanding collecting social network data may be considerably hard because of the systematic information required on relations between any pair of actors making up the network, social network studies in management have extremely increased in number during the last forty years (Borgatti & Foster, 2003). Findings emerged from this expanding body of literature have shown that the relations an individual has at work and the position he occupies relatively to others in the same organization can have important implications for him in terms of a variety of different outcomes. Indeed, social ties have been put in relations with a number of phenomena, such as the adoption of attitudes - and the formation of opinions - similar to those of network partners (e.g., Galaskiewicz & Burt, 1991; Ibarra & Andrews, 1993; Rice & Aydin, 1991; Umphress, Labianca, Brass, Kass, & Scholten, 2003), the degree of power and influence exercised on others (e.g., Brass, 1984, 1985; Brass & Burkhardt, 1992, 1993; Burkhardt & Brass, 1990), the degree of accuracy in perceiving relations existing among others (e.g., Casciaro, 1998; Casciaro, Carley, and Krackhardt, 1999), advancing career and getting promotions (e.g., Boxman, de Graaf, & Flap, 1991; Podolny & Baron, 1997; Seibert, Kraimer, & Liden, 2001), individual reputation for performance (e.g. Kilduff & Krackhardt, 1994) and for leadership (e.g., Mehra, Dixon, Brass, & Robertson, 2006; Pastor, Meindl, & Mayo, 2002), job satisfaction (e.g., Baldwin et al., 1997; Brass, 1981; Roberts & O'Reilly, 1979), intention to leave, turnover (e.g., Krackhardt & Porter, 1986; Wagner, Pfeffer, & O'Reilly, 1984) and absenteeism (e.g., Sanders & Hoekstra, 1998). These studies as well as many others on the consequences of interpersonal network structures are been quite recently reviewed by Borgatti and Foster (2003) and by Brass, Galaskiewicz, Greve, and Tsai (2004).

One of the outcomes which have received comparatively little attention as a consequence of social relations has been individual work performance (e.g., Baldwin et al., 1997; Cross & Cummings, 2004; Mehra, Kilduff, & Brass, 2001; Roberts & O'Reilly, 1979; Sparrowe et al., 2001). Essentially, these studies demonstrated that centrality in social networks across a variety of different relations with coworkers – such as having social conversations (e.g., Roberts & O'Reilly, 1979), taking about work-related matters (e.g., Baldwin et al., 1997; Cross & Cummings, 2004), having friends (e.g., Mehra et al., 2001) or adversaries (e.g., Sparrowe et al., 2001), seeking advice (e.g., Roberts & O'Reilly, 1979; Sparrowe et al., 2001) – play an important part in explaining individuals' differences in performance and success. With only one exception (Cross & Cummings, 2004), these studies focused on individuals' structural position, neglecting the characteristics of individuals' social ties (e.g. in terms of strength) and network partners (e.g. in terms of type or diversity). Conceptually, in all these studies, individual structural position was conceived in terms of centrality (being involved in many relations) or prestige (being the object of many ties), and measured through different centrality indexes (see Wasserman & Faust [1994] for a discussion of the two concepts and related measures: 172-175). For example, Mehra et al. (2001) found that betweenness centrality in the friendship network at work (being in the middle of many “friendship chains” connecting coworkers, being friends of otherwise disconnected people) had a positive effect on work performance, while degree centrality in the same network (having many friends among coworkers) had a negative effect on work performance. Providing results based on different measures of centrality, these studies captured the importance of different aspects of individuals' embeddedness in social networks, showing that

work performance may depend on a variety of substantially different ways to be connected to others. Moreover, as individuals are more or less central in social networks as a consequence of their own as well as others' relational activity and personal ties, these studies contributed to shift attention from explanations based on the individual and his abilities as seen in isolation, to more contextual, relation-based, explanations of individuals' success.

Personality was recently found to affect the position individuals occupy in social networks (e.g., Mehra et al., 2001; Klein, Lim, Saltz, & Mayer, 2004; Kalish & Robins, 2006). This stream of research examined whether and how individual psychological differences translate into individual differences in the formation of social ties. Arguments used to explain such effects are based on the idea that individuals are differentially predisposed to engage themselves in social relations and show preferences for different types of social structures. Self-monitoring, a personality trait reflecting sensitivity to social cues and ability to control and adapt expressive behavior to the requirements of the situation (Snyder, 1974), was found to be particularly effective in explaining differences in individuals' positions in social networks (e.g., Mehra et al., 2001). Included in the self-monitoring theory, there are clear predictions on the effects of self-monitoring orientation on how individuals' structure their social words (Snyder, 1987: 59-84). In adjusting their expressive behavior and self-presentation for the sake of desired public appearance, individuals high in self-monitoring seem to be motivated by the desire to gain status; this desire in turn lead them to modify their behavior in order to gain the favor of individuals occupying high status positions and please those on whom their rewards depend. On the contrary, being motivated by their need to behave in accordance with their inner states, attitudes and beliefs, individuals low in self-

monitoring seem more inclined to join close, homogeneous social worlds. In addition, individuals who scored high in self-monitoring were found to occupy more central positions than individuals who scored low in self-monitoring – e.g., Mehra et al. (2001) found that high self-monitors tended to occupy strategically advantageous positions in the friendship network at work and have larger workflow networks. However, so far, apart from very few studies (e.g., Mehra et al., 2001; Kalish & Robins, 2006), the effects of self-monitoring orientation on individuals' position in social networks have been scarcely investigated.

The present study aims at contributing to this area of research by exploring the links between self-monitoring, social relations and individual work performance. I analyze how self-monitoring relates to social structure and how social structure and self-monitoring combine to predict work performance. These links are investigated with regards to a particular kind of work relations: advice-seeking and advice-giving relations. Self-monitoring theory provides useful insights and suggestions about how individuals with different self-monitoring orientations may find themselves involved in different relations at work. Besides having an effect in terms of the 'amount' of an individual's relational activity or network involvement (his or her location at the center or at the margins of social networks), self-monitoring is also likely to affect the types of subjects chosen as network partners. By exploring the effects of self-monitoring on individuals' social networks this study seeks to answer to recent calls for explanations of the origins of social networks more grounded on the individual and his or her personal characteristics (e.g., Emirbayer & Goodwin, 1994; Kilduff & Krackhardt, 1994; Kilduff, Tsai, & Hanke, 2006). In addition, findings emerged so far in the network literature on individual performance did not reach exhaustive results and provided

reasons to further explore the link between the relations that individuals form at work and their work performance. In this study, I seek to trace a line linking self-monitoring to work performance passing through advice relations; to this end, I analyze how self-monitoring relates to social structure and how social structure and self-monitoring combine to predict work performance. In the following sections, before drawing hypotheses and presenting results, I provide a review of the main studies which specifically explored the link between social networks and individual performance. Together with self-monitoring theory, these studies constitute the theoretical framework of the present study.

PREVIOUS STUDIES ON SOCIAL NETWORKS AND WORK PERFORMANCE

So far, relatively few studies have explored the effects of individuals' structural position on work performance (e.g., Baldwin et al., 1997; Brass, 1981; Cross & Cummings, 2004; Mehra, Kilduff, & Brass, 2001; Roberts & O'Reilly, 1979; Sparrowe et al., 2001) and task mastery (Morrison, 2002). These studies investigated the link between social networks and work performance in quite different organizational contexts: three of them were conducted in business companies (Brass, 1981; Cross & Cummings, 2004; Mehra et al., 2001), one in a military setting (Roberts' & O'Reilly, 1979), one in a full-time residential MBA program (Baldwin et al., 1997), and one in a plurality of diverse work settings (Sparrowe et al., 2001). Unlike the others, Morrison (2002) analyzed social relations of newly hired accountants in a large firm using ego-networks (direct ties

to others and ties among these), and put them in relation with task mastery (knowing how to perform one's job) instead of work performance.

In his study on officers and enlisted personnel in three high technology military organizations, Roberts and O'Reilly (1979) found that people linked to more than one people in one's own organization across three different networks (i.e., seeking technical advice, having social – not work-related - conversations, and formally expressing one's own dissatisfaction about something related to the organization or one's own job, if needed), performed better than people with one or no tie. Essentially, the study provided support for the basic notion that having ties (more than one) is better than being isolated or exceptionally connected with other people.

Brass (1981) found no significant correlation between the performance of employees in a newspaper publishing company and their structural position in the workflow network (acquiring inputs from – and distributing outputs to – coworkers). The position occupied by each worker in this network was conceptualized in three ways to capture different aspects of their interdependencies with coworkers: as degree of closeness to other task positions in the same subunit, department and organization as a whole, as degree of criticality of the task position to the continued flow of inputs and outputs through the network (high critical position were those whose removal would have interrupted the workflow chain), and as degree of dependence on other task positions for the acquisition of inputs or distribution of outputs. From the workflow network, Brass derived measures of each of these individual structural features. Closeness to other task positions (how much a worker can “reach” other workers via workflow connections) was measured through closeness centrality, i.e. the inverse of the sum of the minimum

distances from the focal task position to all the others in the network. The degree of criticality of the task position to the continuity of workflows among workers was operationalized as the number of alternative routes through which work could have flowed if the focal position had been removed. Clearly, this index is a measure of how much the correct function of the workflow of an entire organization depends on a single individual or task position. Finally, the degree of dependence from others for the acquisition of inputs or distribution of outputs was operationalized through the ratio of the total number of task positions able to act as input sender or output receiver to the focal position's degree centrality (the number of its actual workflow contacts). This index represents the average number of potential workflow partners available to a worker from whom to get the resources he needs to work or to whom to send the results of his work, so getting continuity to the workflow chain.

No one of the structural measures described above resulted to affect significantly work performance in Brass's study. In other words, employees occupying a central position in the workflow network (either in terms of closeness centrality or degree centrality) or being highly critical to the continuity of the flows of works through the organization, were no more likely to be higher performers than employees not occupying such positions. Nonetheless, his findings provided general support to a mediation model according to which job characteristics mediated the relationship between individual structural position in the workflow network and individual work performance. Indeed, structural positions as conceived and measured as explained above, related significantly to a series of job characteristics (e.g., autonomy, skill variety, task support and feedback) which in turn related significantly (as a set) to employee satisfaction and performance. For

example, centrality in the workflow network of the entire organization was negatively associated with the degree of autonomy released to the worker, while closeness centrality in the smaller subunit network was positively associated with autonomy. In his analysis of all these joint effects, Brass got support for a mediation model in which both structural variables and job characteristics variables were entered as a set. The general conclusion of this study was that the structural position a worker occupies in the organization's workflow network (as measured in the ways reviewed above) helped explain many characteristics of the job assigned to the worker, which in turn helped explain the degree of his satisfaction and performance.

Mehra et al. (2001) analyzed social networks and work performance of employees of a high technology company in the chemical industry. They found that betweenness centrality in the workflow network (being located in the middle of the most efficient or shortest routes through which work can flow from a person to another, intermediating the process of exchange of inputs and outputs between other workers) was positively associated with work performance, while degree centrality in same network (having many workflow contacts, directly exchanging inputs and output with many others) was negatively associated with work performance. Similar results also emerged as regards the friendship network. Indeed, betweenness centrality in the friendship network (having friendship relations to otherwise unconnected people, falling between pairs of actors on the shortest friendship chains connecting them) was positively associated with work performance, while degree centrality in same network (having many friends among coworkers) quite surprisingly resulted as negatively associated with work performance. The positive effects of having a high betweenness centrality in both

networks can be explained through information benefits arising from connecting people not in contact with each other, so having a higher probability to gain non redundant information useful to one's own work. Instead, having a large network of workflow contacts or friends may be detrimental to work performance because of the costs associated to maintaining such a large number of relationships in terms of time and other resources. However, given the great difference in the substantive nature of the two networks, this similarity in their effects was not so obvious.

The finding of Mehra et al. (2001) that having few ties at work is better – in terms of performance – that having many ties seems to contrast with that of Roberts & O'Reilly (1979) that having relations with coworkers is better than not having them. These contrasting evidences seem to suggest the existence of an inverted U-shaped relationship between degree centrality (number of direct ties to others) and work performance. In other words, having ties with coworkers (e.g., communication or friendships relations) might be predictive of a better performance only until a certain degree, a sort of “maximum degree of acceptance”, over which additional relations might cause more costs than benefits, starting representing a burden instead of a resource. If so, in order to efficiently manage relationships, individual should be aware of this upper limit to avoid “overdoses” of social relations.

Baldwin et al. (1997) found that closeness centrality in communication networks (having access to others via direct and indirect communication channels, exchanging information with many people or with people who exchange information with many others) was positively associated with the performance of MBA students enrolled in a full-time residential program. Instead, although friendships relations might be seen as a source of help and cooperation especially

among students engaged in similar tasks or working on similar assignments, closeness centrality in friendship network (having many friends or having friends with many friends) did not result as significantly related to students' performance. Closeness centrality in the adversarial network (having many adversaries or having adversaries with adversaries) resulted not having a significant effect on individual performance as well. Instead, surprisingly, adversarial ties within student teams were positively associated with team performance, whereas communication ties within teams were not significantly related to team grades.

In a study on small work groups in five organizations, Sparrowe et al. (2001) found that indegree centrality in the advice-seeking network (being approached for advice) was positively related to both in-role performance (performance on required duties and responsibilities) and extra-role performance (performance on discretionary behaviors not expected as per job descriptions). They also found that indegree centrality in hindrance networks (being indicated by coworkers as a person who thwarts task behaviors, makes it difficult for them to complete their work) was negatively related to both aspects of work performance. Density in hindrance networks (the presence of hindrance relations between work group members in proportion to the total possible number of hindrance relations) was negatively associated with work group performance, a finding opposed to that of Baldwin et al. (1997) for adversarial relations in student teams. Finally, density in advice networks unexpectedly resulted not to have significant effects on work group performance.

Studying the effects of social relations in the workplace on newcomers' socialization, Morrison (2002) found that the task mastery (being able to efficiently and successfully doing one's job, feeling confident conducting job assignments) of

a sample of first-year staff accountants was positively affected by the size, density, strength and status of their communication (ego-)networks. That is, recruits having many contacts providing them with job-related information mastered their job better than recruits having few contacts; in addition, recruits having ties to unconnected people, or having stronger ties, mastered their job better than recruits having ties to close people, or having weaker ties. Finally, recruits having ties to people occupying higher hierarchical positions mastered their job better than recruits having ties to people in lower hierarchical positions.

Cross and Cummings (2004) found that betweenness centrality in the information network (being in the shortest paths connecting pairs of otherwise disconnected actors) was positively related to work performance of individuals performing knowledge-intensive work in two distinct contexts (a petrochemical company and a strategy-consulting firm). They also found a positive association between betweenness centrality in the awareness network (being aware of the others' knowledge and skills, having the perception to know what other people know) and work performance. These results confirmed those of Mehra et al. (2001) concerning the positive effects of betweenness centrality on work performance. Both studies analyzed the link between social relations and individual performance in complex jobs whose outcomes heavily depended on obtaining and applying relevant information to frame and solve novel problems and carried out assigned projects. This condition, joint to the collaborative nature of project-based jobs, helped explain the predictive power of social relations among coworkers found in both studies. The study by Cross and Cummings (2004) had the merit of recognizing that being able to exploit others' knowledge is not just a matter of having connections to others (being central in the information network) but also of

knowing what others knows (being central in the awareness network), since this appears as a natural pre-condition to know whom to turn to in case of need.

My review of studies on social networks and work performance has shown as centrality, the extent to which an actor is involved in relationships with other actors (Wasserman & Faust, 1994), has been the structural property most often associated with individual work performance. There are certainly a lot of good reasons to rely on centrality measures when interested in the link between social networks and performance. The concept captures the extent to which actors are directly and/or indirectly connected to others and thus is considered a good proxy of the extent to which they have access to others' resources, control benefits and power (e.g., Brass, 1984). These outcomes are in turn likely to be associated with actors' performance. However centrality may be not the only aspect of one's relations with others having an impact on performance. Besides the number of contacts and the possibility to easily reach different parts of the network via others' contacts, the type of contacts one has and their relative diversity may be equally important or play a part in explaining differentials in actors' performance. Besides verifying the predictive power of centrality measures in a new, less investigated, context, my study aims at contributing to the understanding of the social roots of individual work performance by also exploring the effects of dimensions of individual embeddedness in social networks other than centrality. Moreover, although the extant studies, taken as a whole, proved the importance of social relations for individual work performance, they presented mixed results, providing other reasons for further exploring the link between work performance and individual network ties.

THEORY

Self-Monitoring and Individual Performance

Self-monitoring is a personality trait reflecting the extent to which an individual cares about the situational appropriateness of his or her expressive self-presentation, and control his or her words, behavior, and expressed emotions in order to project appropriate social images of him- or herself (Snyder, 1974). High self-monitors are therefore individuals who are both willing and able to adjust their behavior to fit the requirements of the current situation and convey socially desired images to others (Snyder, 1987). They are highly sensitive to situational and interpersonal cues to appropriateness (e.g., the expression and self-presentation of others in the same situations) and use this cues as guidelines for monitoring their own self-presentation and expressive behavior (Snyder, 1974). In doing so, high self-monitors observe and adjust both their verbal and non verbal behavior (e.g., the expression of their face and the tone of their voice) to make it suitable to the situation and favorably impress others (Snyder, 1974). Depending on contextual factors, high self-monitors' self-presentation tends to lack consistency across situations and displays greater variability than does the self-presentation of low self-monitors. Low self-monitors are individuals who are not motivated and/or able to modify their behavior for the sake of desired public appearances. Typically, low self-monitors are unwilling to modify their expressive behavior to please or impress others (Gangestad & Snyder, 2000); they value congruence between inner emotional states and expressive behavior (e.g., they appreciate people who behave consistently with their opinions and thoughts), and reject socially built images, that

they perceive as false projections of the self (Snyder, 1987; Gangestad & Snyder, 2000). Instead of relying on situational and interpersonal cues of social appropriateness, low self-monitors' behavior is primarily guided by inner attitudes, emotions, and dispositions (Gangestad & Snyder, 2000; Snyder, 1974). The systematic difference between high and low self-monitors in the criteria used to decide how to behave in social situations is probably best reflected by two different questions they seem to answer before acting: a high self-monitor would probably ask him- or herself the question "Who does this situation want me to be and how can I be that person?", whereas a low self-monitor would probably ask "Who am I and how can I be me in this situation?" (Snyder, 1987: 46).

Previous research has shown that individual differences in self-monitoring may affect people's ability to successfully do their job. High self-monitors are expected to be more successful in jobs requiring role flexibility, interpersonal interactions and adaptation to different or unusual contexts and situations (e.g., Anderson, 1987; Caldwell & O'Reilly, 1982; Moser & Galais, 2007; Sypher & Sypher, 1983). The logic underlying this association is that these types of jobs should provide high self-monitors with major opportunities to make use of their ability to detect cues to appropriate behavior and accordingly regulate their expressive manifestations and public images. Moreover, high self-monitors are more adept than low self-monitors at ingratiating and impressing others, and tend to engage more in self-promotion (Turnley & Bolino, 2001). These skills suggest that they should be particularly effective in communicating with others and gaining their favor. High self-monitors were also found to be more likely to achieve internal promotions in managerial careers (Kilduff & Day, 1994). This result opens an interesting question about the ability of high self-monitors to actually achieve

higher performance levels, or rather to impress performance evaluators and supervisors. Caldwell and O'Reilly (1982), and Moser and Galais (2007), found a positive association between self-monitoring and work performance in boundary-spanning jobs (i.e., they analyzed field representatives, and sales insurance agents respectively). Interestingly, they found similar results even if they focused on different measures of work performance: performance ratings and more objective measures (contracts sold) respectively. Anderson (1987) and Anderson and Thacker (1985) found that self-monitoring was more strongly associated to work performance in non-traditional jobs than in traditional jobs. Anderson (1987) found that self-monitoring was more strongly associated with the work performance of men holding the traditional female job of staff nurse in a hospital than to the work performance of their female colleagues. Anderson and Thacker (1985) found similar results with regards to men and women employed in a traditional male computer sales job. These results are consistent with the self-monitoring theory as they confirm the higher adaptability to contextual situations of high self-monitors.

In the present study I focused on the self-monitoring orientation and work performance of people holding high managerial positions in a traditional boundary spanning department: the marketing and sales department of a large company. Since these people were located in different organizational units, there spanned boundaries toward both the inside and the outside of the company (i.e., as a main part of their job, they interacted with people outside their unit but inside their organization, and with people outside the organization). Results found in previous research on boundary-spanning jobs, as well as results confirming the higher adaptability and communication abilities of high self-monitors, makes plausible to hypothesize a positive relationship between self-monitoring and performance in my

research context. Therefore, having in mind the particular context of the present research, I hypothesize:

Hypothesis 1: Higher self-monitoring is associated with a higher individual performance.

Self-Monitoring and Social Relations

High and low self-monitors substantially differ in the way they start, cultivate, and manage their social relations (Snyder, Berscheid, & Glick, 1985; Snyder, Gangestad, & Simpson, 1983; Snyder & Simpson, 1984; Snyder, Simpson, & Gangestad, 1986). High and low self-monitors select their partners by means of very different strategies. High self-monitors prefer to engage in social activities with partners particularly expert and skilled in performing those activities; therefore, they choose their partners on the basis of their potential partners' skills and abilities in specific activity domains (Snyder et al., 1983). Partly as a consequence of this strategy, they usually engage in different activities with different partners, changing partner according to the activity. That is, high self-monitors' search for the most skilled, expert and competent among their potential partners, makes their preferences shift from a partner to another according to their partners' competencies in each specific activity domain. Their choice of a friend like an activity partner is thus subordinate to the choice of the activity: they first choose the activity and then the friend most suitable (i.e., skilled) as partner for that activity. As one high self-monitoring tennis player observed, "When I want to play tennis, I select a partner who can challenge me. There's nothing worse than having

to play with someone who hits the ball everywhere except over the net” (Snyder, 1987: 65). Since those most skillful at playing tennis may not be also the ones most skillful at doing another activity or the most expert or knowledgeable to be around to do something specific (e.g., going to art museums), high self-monitors tend to have as many partners as the activities in which they engage. Engaging with specific partners only in one or few social activities, allows high self-monitors to minimize the overlapping of their activity partners or friends: so, they can project different images of themselves without the risks that their different partners witness them presenting inconsistent self-images or identities across situations, activities, and domains. Moreover, being involved in activities with partners who excel in those activities, provides opportunities for high self-monitors to display their own competencies and perform in ways particularly appropriate to the situation, that is one of the major concerns who defines their psychological profile.

Low self-monitors, instead, use a remarkably different strategy when choosing partners for their social activities. They choose their partners on the basis of their global similarity and general likability, engaging with each of them across a variety of different activities irrespective of their skills and expertise in each single domain (Snyder et al., 1983). They are thus more driven by the person than by the activity, taking pleasure in doing any activity to the extent they take pleasure spending time with a specific person: as a low self-monitor pointed out, “When I engage in an activity, I want to be with someone I feel comfortable with. Usually, my closest friend fills this role. Besides, it’s the people who define the activity, I mean whether it’s fun or boring, memorable or forgettable, isn’t it?” (Snyder, 1987: 66). This strategy for selecting partners is consistent with low self-monitors’ need to behave in accordance with their own feelings and attitudes: by choosing

well-liked people as activity partners they make a behavioral choice consistent with their general attitudes toward specific members of their social world (Snyder et al., 1983). Moreover, by choosing as partners people similar to them in their personal orientations, they create a supportive climate around them in which they can feel free to be themselves, that is to express their own attitudes, traits and dispositions, and behave according to their values. This strategy also implies that low self-monitors, contrary to high self-monitors, tend to keep the same partners across activities: since their choices are based on their overall feelings of liking for other people, people chosen for one activity tend to be chosen for the others too (Snyder et al., 1983).

When relating with others at work, high and low self-monitors might adopt similar strategies. High self-monitors might choose partners on the basis of their ability and proficiency in doing specific tasks, turning to specific persons for specific problems or needs. When needing advice on how to deal with a new or difficult problem, they might tend to seek the most skilled and competent among their coworkers (i.e., the 'specialist' in that field) and turn to him or her for advice. Their wish to perform in the most appropriate way in public situations might act as a strong motivational factor to seek out the most expert in doing a specific activity or dealing with a specific problem among all their potential contacts. When they have a doubt about the best way to do a particular task or feel they have not enough experience or ability to deal with a situation successfully, high self-monitors might be more motivated than low self-monitors to assess their potential contacts' abilities and knowledge in specific areas and choose the more expert ones. Low self-monitors, instead, might choose partners on the basis of their overall feelings of liking for them, relying on the same well-liked people for help or advice on most

of the problems they encounter at work. They might consider general likability and perceived trustworthiness more important than their potential partners' specific abilities and knowledge. When they feel uncertain about how to behave in particular situation or work out a problem, they might prefer share their doubts and uncertainties with people they feel close to them, with whom they share opinions, attitudes, and behaviors, or whom they consider as friends, no matter how skilled or trained they are on specific kinds of problems or situations. They might prefer having the piece of advice and opinion of a well-liked and trusted person than having the ones of the most expert, but distant from them as person, specialist in the field.

Because of these two, hypothesized different strategies in selecting potential contacts and managing advice relations at work, high and low self-monitors may have different types and structures of advice relations. High self-monitors' search for highly skilled working partners may imply having a relatively high number of advisors, one for each specific difficult problem or complicated issue faced while working. Getting advice from the most knowledgeable person among one's potential partners may require changing partner frequently according to the specific problem at hand, and consequently having a high number of advice partners. Being expert on specific topics and matters, these partners are also likely to be very different from one another. They may have different educational background, have received training in different fields, or have different work experience or qualifications. They may also be located in different areas of the organization, either functional or physical. Being employed in different functional areas almost always implies be familiar with different kind of problems and work-solutions. Each of these positions, in turn, may be a precious source of technical

advice, professional support, and work-related information. Even occupying different physical spaces or working for different organizational units may mean being differently expert on specific topics. Physical location has an effect on the information which one is exposed to (DeSanctis & Monge, 1999; Cummings, 2004) or is able or willing to share with others (Davis, 1984; Zalesny & Farace, 1987). In addition, working in different organizational units may imply having to do with different problems and/or different practices and work-solutions, so developing accordingly different abilities and perspectives in dealing with problems. That is, each of these types of diversity (educational, functional and organizational) may imply a diversity in expertise and knowledge on specific topics, problems and activities, and thus may be the one high self-monitors seek out in their partners when they feel uncertain about different aspects of their work and need advice. Thus I hypothesize:

Hypothesis 2: Higher self-monitoring is associated with more incoming advice relations.

Hypothesis 3: Higher self-monitoring is associated with a higher diversity in advice network partners.

The tendency of high self-monitoring individuals to establish connections to diverse people and inhabit distinct social worlds may lead them to occupy brokering positions within social networks at a higher rate than do low self-monitoring individuals. This proposition is suggested by the homophily principle. The homophily principle states that a contact between similar people occurs at a higher rate than among dissimilar people (McPherson, Smith-Lovin, & Cook,

2001: 416). This basic and descriptive proposition has been extensively researched and supported, leading to the theoretical proposition that similar people are more likely to be directly connected than are dissimilar people, that is “similarity breeds connection” (McPherson, Smith-Lovin, & Cook, 2001: 415). Homophily implies that people who are distant in terms of social characteristics are also likely to be distant in network terms, that is dissimilar people are likely to belong to distinct and dense social groups (or subnetworks) weakly connected among them. As a consequence, the higher the dissimilarity between two individuals, the higher the number of relationships through which a piece of information must travel to pass from one to another (McPherson, Smith-Lovin, & Cook, 2001). This line of reasoning suggests that having diverse partners may facilitate assuming intermediating positions within social networks. The hypothesized positive relationship between self-monitoring and diversity in network partners makes therefore plausible to hypothesize a positive relationship between self-monitoring and the occupation of social spanning positions, that is positions linking unconnected others.

Betweenness centrality represents the tendency to ‘fall between’ others in a network. More formally, it measures the proportion of paths connecting all pairs of actors in a network to which a focal actor belong (cf. Wasserman & Faust, 1994: 190). The higher the number of paths passing ‘through’ the actor, the higher the tendency for that actor to intermediate communication, or other exchanges, between pairs of otherwise disconnected actors. To be able to act as a bridge holding together distinct parts of the network, the actor occupying this position must have direct ties to actors belonging to such distinct parts, so being himself part of many different social groups at the same time. As explained, by virtue of

their preference for a diversity in network partners, high self-monitors may be more likely to occupy such positions and play this role than low self-monitors. I therefore predict that the higher the self-monitoring, the higher the number of advice relations to people belonging to different social divides, the higher the number of social divides connected to each other through such relations.

Hypothesis 4: Higher self-monitoring is associated with more advice relations that span social divides.

Social relations and Individual Performance

Through advice relations in the workplace coworkers exchange resources such as assistance, guidance and knowledge valuable to the completion of their work. Although useful in general, these resources may be of particular importance for highly dynamic or complex jobs characterized by low predictable results and changing surrounding conditions. In such cases, performing well one's job is not just a matter of knowing procedures and routines, but above all of being able to find workable solutions to new and sometimes unexpected or sudden problems. Besides relying on their own intellectual capabilities and expertise, individuals having advice relations can rely on those of workers with whom they are tied. Indegree centrality in the advice network (receiving advice from others) reflects the possibility an individual has to access multiple sources of advice and expertise, to get information about successful solutions adopted by others in response to similar problems, to get opinions and suggestions on the best way to proceed or act in a

given situation, and so on. In the long run, having a high number of these relations may translate into the accumulation of knowledge and the acquisition of expertise about how to deal with a variety of situations in a variety of contexts. Moreover, these relations can give rise to others forms of collaboration and the adoption of information sharing behaviors among partners. Partners engaged in an advice relation may start sharing information about relevant events, documents, news and opportunities, all elements with a potential effect on one's work performance.

Hypothesis 5: More incoming advice relations are associated with a higher individual performance.

Besides representing direct sources of immediately available, 'ready for use', information, knowledge, and expertise, advice relations may also act as *indirect* sources of information and other similar resources. Indeed, individuals may rely not just on the information and knowledge promptly available to their own giving-advice partners but even on that available to the 'partners of their partners', so extending the benefits of their network position behind those associated to their own direct relations. However, the efficiency and effectiveness of direct relations as means for accessing resources which are sparse on the network, depend on the extent to which they connect the individual to people who are not directly connected among themselves and – above all – who have a different set of network contacts. Individuals connected to people belonging to different 'social circles' or groups are more likely to gain diverse information than are individuals connected to closely connected people forming the same group. That is because the information that circulates in one group is more likely to be redundant than is information that

circulates in different groups (Mehra et al., 2001). Put differently, people in the same group are likely to own the same information available to the other members of the group because of their common work contacts and relations, while members of different groups are likely to own different pieces of information as a consequence of the fact that they interact with different sets of contacts, have a higher number of non common relations, and are exposed to different environments and stimuli. Thus, having advice relations with people involved in different social circles may imply access to a broad range of diverse information concerning projects, events, crisis, opportunities, threats, news, and other contingencies. Individual receiving advice from people belonging to different circles and having different personal networks, are likely to benefit from these broad and differentiated set of contacts by obtaining a great amount of non-redundant information, and this may happen even without the individual making any particular effort or actively soliciting the information transfer: non-redundant information may flow to the individual simply as a natural consequence of the fact that his or her partners talk and share information with other people, so acquiring information potential useful to him or her. In this view, partners in the advice network act as bridges through which the individual span social groups and access their differentiated resources, establishing a connection between them. On the contrary, individuals receiving advice from people in the same group, having greatly overlapping personal networks, are less likely to find themselves expose to such a great variety of information, because the same pieces of information which can be passed by one of his partners are likely to be passed by the other partners too.

Betweenness centrality measures the frequency with which an actor is located in the shortest paths connecting all pairs of actors in the network (cf. Wasserman & Faust, 1994: 190). The higher this frequency, the higher the probability that information transfer ‘through’ the actor when passing from an actor to another. As betweenness centrality increases when the number of pairs of actors connected by means of the focal actor increases, betweenness centrality reflects how much an actor contributes to hold different parts of the networks together by linking otherwise disconnected actors and spanning distinct social groups. The higher the betweenness centrality, the more distinct ‘social world’ or subgroups that are indirectly accessed, and the more pieces of non-redundant information that are likely to flow to the focal individual on behalf of his or her work performance.

Hypothesis 6: More advice relations that span social divides are associated with a higher individual performance.

Besides being channels through which access others’ knowledge and expertise, advice relations may have an additional value to the extent that allow individuals to get knowledge from a variety of diverse sources, each representing a unique set of expertise, information and knowledge. Receiving advice from people having different backgrounds, past work experiences, working in different functions or performing different tasks may have a significant impact on individual performance as it implies accessing quite diverse pools of expertise and knowledge, each represented by a partner in the network. People with different educational or professional backgrounds may have very different perspectives and provide the individual with a remarkably differentiated set of pieces of advice and

work solutions. This variety in perspectives may furnish the individual with a variety of differentiated inputs to be translated and applied to the work-related problem at hand. Connections to such diverse partners may help an individual acquire a more diverse perspective on problems and find creative or innovative solutions he or she would not be find otherwise. Partners' diversity with respect to the function performed within the organization mat be equally important. When asked to furnish advice to deal with a same problem, people holding different positions, working in different functions or departments, or performing different tasks may suggest the individual to adopt different solutions or show different opinions as a consequence of their different on-the-job experiences and the problems faced and worked out by themselves in the past. By processing this variety of inputs and stimuli, the individual may be able to grasp the importance of aspects of the problem he did not consider before or think of possible ways of using the available information to solve the problem completely new as compared to those he or she is used to. Moreover, he or she can also combine knowledge coming from so diverse sources to create new ways of doing things or performing tasks, as the principle that 'the whole is much of the parts' might suggest. Thus it seems reasonable to expect that the richness in inputs, views, knowledge, and expertise accessed through incoming advice relations with a range of diverse people, may translate into a richness in outputs, solutions, and ideas applicable to one's work problems and task-oriented activities.

Even diversity in partners' location inside the organization or on the territory may play a role in affecting work performance. Cross and Cummings (2004) found that, in complex jobs that demands integration of specialized knowledge, having ties with people outside one's own organization, or inside the

organization but outside one's own department was positively related to individual work performance. They also found that even having ties with coworkers working in the same department but physically located on a different floor of the same office building had a positive effect on work performance. They suggest that people with ties spanning physical barriers (e.g., with coworkers in a different floor) are more likely to be exposed to a wide range of relevant information and expertise than people with ties all concentrated in the same physical location (e.g. only with coworkers with whom one share the same office or coworkers whose offices are very near to the one's own), who are instead more likely to share and obtain similar kinds of information. In the present study I extend this idea to ties spanning both organizational and geographical boundaries. Getting advice from people located in different organizational units or geographical areas may have a significant impact on individual performance as a consequence of the fact that, working in different environments, these people are likely to be exposed to different stimuli, be embedded in different social contexts and be surrounded by quite different practices and 'ways of doing things'. This diversity in contextual factors may in turn imply access to a variety of suggestions, solutions and opinions provided by these people when approached for advice. People located in different areas or working for other units may also act as direct sources of local and unique information. They can provide information and data about events, market conditions, clients, suppliers, or competitors in a different country or in a different city, yielding useful pieces of information and suggestions on how to deal with similar problems or behave in similar circumstances. For instance, in business organizations, such distant contacts may provide advice on how to sell a particular product or service of the company on the basis of their personal experience with

local clients (whether they are distributors or customers); they may also provide information on products or services launched on the market by competitors as well as on reactions of local consumers or clients to new competitive offerings. Because of their physical distance, having advice relations with people located in different areas and consequently exposed to different environments, may yield very different pieces of information and advice. On the extent that an individual can leverage such a diversity in inputs to enhance his or her problem-solving ability and get considerable new, creative and workable solutions and outcomes, partners' diversity in the advice network can be seen as a predictor of a better individual performance for workers performing jobs requiring such abilities.

Hypothesis 7: A higher diversity in advice network partners is associated with a higher individual performance.

So far I made separate hypotheses on the effects of self-monitoring on advice relations at work, and on the effects of these relations on work performance. Taken together, my hypotheses lead me to hypothesize that self-monitoring have a double effect on work performance. On one side, self-monitoring might directly influence individual work performance; on the other, it might influence individual work performance by influencing the type and structure of the social relations in which individuals are involved. High self-monitors might get a higher individual performance thanks to their natural predisposition to appear 'the right person at the right time in the right place' while interacting with others, promptly changing their attitudes and behavior according to the demands of the occurring situation. In jobs for which interacting with many different people in a variety of situations is an

essential part, this ability is likely to directly influence the individual performance of this kind of workers. In addition, high self-monitors might tend to develop more advice relations, to seek advice from a variety of diverse people, and to establish indirect connections between otherwise disconnected people. Each of these characteristics of their way of relating with others might in turn get them more opportunities to obtain valuable information and knowledge useful to perform their tasks, with positive effects on their work performance. Thus, I propose this summary hypothesis:

Hypothesis 8: Self-monitoring has both a direct and a mediated positive effect on individual work performance. In jobs requiring a great deal of interpersonal interactions, high-self monitors can take advantage of their more communication skills to get a higher work performance. At the same time, high-self monitors tend to have more partners providing them with advice, to span more social divides through their advice relations, and to have more dissimilar partners; each of these features of their position in the advice network positively influences their work performance.

METHODS

Sample

I conducted my research with managers employed in the marketing and sales department of a large multinational company in the agricultural equipment industry. In Europe, the company owned 11 business units located in 10 countries engaged in the distribution of equipment and machinery for agricultural activities

to the European market. In some national markets where the company did not own a unit, business was run by managers responsible for dealing with importers. I addressed my survey to 47 managers employed in the marketing and sales department of the company, in charge of the day-to-day running the company's European commercial operations. During the data collection, one manager left the company while another was substituted by a manager who was already included in the sample. The remaining 45 managers completed the entire survey. Since there were no performance measures for the Vice President of the company, analyses involving this variable used a sample of 44. All the 45 respondents were men. The average respondent was 45.98 years old (s.d. = 7.27) and had worked in the company for 206.69 months (s.d. = 127.76). As for nationality, 31.1 percent of the respondents were Italian, 17.8 percent were British, 13.3 percent were French, 13.3 percent were German, 6.7 percent were Danish, 6.7 percent were Belgian, 4.4 percent were Spanish, 2.2 percent were Portuguese, 2.2 percent were Polish, and 2.2 percent were Dutch. As for race, they were all Caucasian. They performed a variety of jobs according to the specific function in which they were employed (e.g., marketing, sales, after sales, retail, etc.). A large part of the job of these people consisted of managing relations with people outside the organization, conducting negotiations (with importers, dealers or customers), satisfying customers' demands, supporting dealers during and after sales, coordinating selling agents and so on.

Data Collection

The data used in this study were collected as part of a larger data collection effort. Data were collected via an e-mail survey which took respondents about 30-35 minutes to complete. The full effort consisted in the administration of two separate questionnaires and included self-reported scales and sociometric answers for a number of additional variables and social relations respectively. The data used in this study were collected by means of the first questionnaire. The questionnaire was translated (and back-translated) from English to French, Italian, and German by three independent translators. Although English was widely used within the company at all levels (i.e., it was the company's official language), this procedure assured the full comprehension of the questions among respondents. The four languages were chosen as they reflected the different mother tongues and nationalities of participants. The only exception was represented by Spanish participants: although I proposed to include a Spanish version of the questionnaire, the company assured me that it was not necessary since they mastered both English and Italian very well. The English version of the questionnaire was pretested and discussed with three human resource managers and the Vice President of the company to ensure correct use of relevant language and interpretation of the instrument.

The questionnaire (in the four linguist versions) was sent to participants by the company's corporate offices as attached to an e-mail message informing them of the survey and asking for their cooperation. Each respondent was invited to complete the version of the questionnaire which was written in his mother tongue or second language (for Spanish participants). Along with the questionnaire,

participants also received a letter from the researcher describing the research project and assuring confidentiality. They were instructed to send back their completed survey directly to me, either via mail or via e-mail as they preferred. The questionnaire circulated in a special electronic format allowing the respondent to fill it out completely on his pc without printing it. While retaining all the advantages connected to online survey, completing my questionnaire did not require any Internet connection, and was therefore even more flexible than online survey. Since my respondents spent a large portion of their working time traveling abroad, this condition assured that they could have filled out the questionnaire in any moment without particular restrictions. In addition, those who preferred paper-and-pencil questionnaires did maintain the possibility to print the questionnaire and complete it by hand. This turned out to be an useful strategy to speed and facilitate the entire data collection process.

Some days after the company's formal invitation, I sent a separate e-mail message to participants thanking them for their help and invited them to contact me in case of need in completing the questionnaire or understanding particular questions. I also asked Spanish speakers to let me know if they would prefer to fill out a Spanish version of the questionnaire; in that case, I would readily arranged that version. However, no one of them made such request. In the following weeks, reminders were sent via e-mail by both the human resource managers of the company and me to nonrespondents. At the end, all of them returned me their survey. As previously mentioned, I got back 45 completing surveys, representing the 100 per cent of all the possible surveys I could collect.

Measures

Self-monitoring. I used the revised 18-item true-false version of the Self-Monitoring Scale (Snyder & Gangestad, 1986: 137) to measure self-monitoring. The scale is the shortened version of the original 25-item true-false scale developed by Snyder (1974); as explained in Snyder and Gangestad (1986: 137), the revised version of the scale possesses an higher reliability and is more factorially pure than the originally proposed version. The scale includes items such as “In different situations and with different people, I often act like very different persons” (keyed true), “I have trouble changing my behavior to suit different people and different situations (keyed false) and “I may deceive people by being friendly when I really dislike them” (keyed true). In the present research, the reliability of the scale as assessed by Cronbach’s (1951) alpha was .79, that is slightly higher than the mean reliability reported in previous studies on self-monitoring based on the same scale ($\alpha = .73$; reviewed in Day et al. 2002: 393). I added a point for each response in the keyed direction and I normalized the score by dividing it by its maximum value. I used this normalized value as the self-monitoring score.

The construct validity of the Self-Monitoring scale has been widely discussed (cf. Snyder & Gangestad, 1986; Gangestad & Snyder, 2000; Day, Schleicher, Unckless, and Hiller, 2002). Although multiple content domains are represented by the measure, a recent and systematic examination of the literature on self-monitoring’s empirical relations with a variety of behavioral and attitudinal criterion variables showed that the Self-Monitoring scale does tap a large general factor (a single personality variable), which explains a substantial amount of the whole variance of the measure and is approximated by the first unrotated factor

(Gangestad & Snyder, 2000; see also Snyder & Gangestad, 1986). This latent general factor reflects a conceptually meaningful dimension that is the self-monitoring orientation. This comprehensive examination of the self-monitoring literature reached the conclusion that the propensity for self-monitoring can be conceptualized a unitary phenomenon. This propensity was found to be highly stable over time, as indicated by test-retest studies conducted over periods of one month to 3.5 months using the original 25-item Snyder's scale (reviewed in Snyder, 1987: 17). Moreover, studies on the self-monitoring orientation of monozygotic and dizygotic twins suggest that self-monitoring, as detected by the Self-Monitoring Scale, is likely to have a biological basis (reviewed in Snyder & Gangestad, 1986: 128), providing additional support for the temporal stability of both the instrument (providing stable self-monitoring scores over time) and the concept (self-monitoring as a stable personality trait).

Social network position. I reconstructed the network of advice relations by asking respondents to look down a list of all the people holding a managerial position in any of the European business units of the company and check the names of those who usually provided them with advice at work. I solicited answers through the question: "While doing our job, we may face a new problem or a new situation we have never handled before. We may need to take a decision to work out the problem or undertake a task we have never carried out before. Please place a check next to names of the people to whom you usually ask advice when you feel you have not enough experience or knowledge to deal with a work-related problem successfully". In phrasing the question, I tried to best reflect the knowledge-based and expertise-based content of an advice relation.

In designing the sociometric part of the questionnaire, I opted for a roster format instead of a free recall format (cf. Wasserman & Faust, 1994: 46). That is, I provided respondents with an alphabetical list of all the people in the sample asking them to check the name of those whom they turned to for advice. This method differs from the free recall as respondent are provided with the full list of those among whom they can choose in response to the question. Since the list help respondents not to forget people with whom they have a tie, the roster method is preferred when the researcher knows the network membership beforehand and thus can include the list. I also opted for a free choice format instead of a fixed choice design (cf. Wasserman & Faust, 1994: 47). That is, I did not put constraints on the number of people that respondents could indicate in response to the question. This format assures that all the people with whom a respondent has a tie, in this case all the people to whom one asks advice, enter the dataset.

The network data were subsequently arranged in a 45x45 binary adjacency matrix through the following procedure: since in the matrix the cell x_{ij} corresponded to the relation between the pair (i,j) as reported by i , I assigned a value of 1 to the cell x_{ij} if i declared to turn to j for advice, and a value of 0 in the opposite case. Cells x_{ii} corresponding to relations from an actor to oneself were coded as 0 as, of course, no one could nominate oneself; alternatively I could have left these cells undefined. The resulting matrix contained 1,980 observations on all possible pairs of people. This matrix was asymmetrical since advice relations could be not reciprocated, as when person i asked advice to person j but person j did not ask advice to person i . So far the matrix reflected the advice network in terms of “who asks advice to whom”. To reverse the direction of ties and get a matrix reflecting “who gives advice to whom”, I transposed the original matrix. This

manipulation allowed me to have a matrix and a graph reflecting the true direction followed by resources (knowledge and expertise) exchanged through advice relations. I used this matrix in all my subsequent calculations to get network indexes and centrality measures. To perform these calculations, I used the network software program UCINET VI version 6.24 (Borgatti, Everett & Freeman, 2002). The density of the advice network was .11, meaning that 11 per cent of all possible advice relations actually existed in the network. The rate of reciprocity was .396, that is of all pairs of actors that had any advice relation, 39.6 per cent of the pairs had a reciprocated relation.

To obtain the number of relations providing each individual with advice, I computed indegree centrality scores (Freeman, 1979). Indegree centrality is the number of relations directed to an actor. It counts the number of nominations or choices received from other actors in response to a sociometric question, thus is a measure of how much an actor is chosen by other actors in a network. Conceptually, indegree centrality is a basic index of the prestige of an actor (cf. Wasserman & Faust, 1994: 169-175). A prestigious actor is one who is the object of extensive ties, that is prestige is a concept that focuses only on ties incoming or directed to an actor. Given this focus on incoming ties, prestige is clearly a concept that can be applied only to directional relations, that is relations which have a direction and may be not reciprocated. The higher the involvement of an actor in a network as a consequence of others' choices and relational activity, the higher the prestige of that actor. Prestige is, in turn, a measure of the prominence or importance of an actor in a social network, where with "prominent" or "important" one means the fact that an actor is particular visible to other actors in the network (see also Knoke and Burt, 1983). In the present study, indegree centrality is the

number of advice relations directed to an actor or, alternatively, the number of other actors in the network who provide advice to a focal actor. It must be said that, in this case, referring to indegree centrality as an index of “prestige”, although terminologically correct, might be misleading due to the substantive nature of the relation. As receiving many ties means being object of extensive help and advice from others, one might think of the most “prestigious” actors as those who are senders rather than receivers (Wasserman & Faust, 1994: 175). That being said, indegree centrality was certainly the most appropriate measure to be used in the present study, as it measured exactly the number of advice relations directed to an individual.

To measure the extent to which each individual spans social divides in the advice network, I computed betweenness centrality scores (Freeman, 1979). Betweenness centrality is the number of the shortest paths connecting all pairs of actors in the network that contain the focal actor. It reflects the probability an individual has to intermediate communication as well as any other type of exchange between all other actors in the network. In a ‘complete’ network (Wasserman & Faust, 1994), in which all actors are directly connected to each other and the density is maximum, betweenness centrality is zero for all actors, as no one of them intermediates communication between any pair of other actors. Instead, in a ‘star’ network, in which one actor is connected to all the others and all the others are connected only to him or her, the betweenness centrality of that actor is maximum as all the other actors need to pass ‘through’ him or her to reach each other (Wasserman & Faust, 1994). Of course most ‘real’ networks fall in between these two extreme cases; in any case, betweenness centrality scores capture the extent to which a whole network depend on each actor to maintain its connectivity,

that is how much single actors act as potential ‘go-betweens’ for actors located in socially distant regions of the network, or belonging to different sub-networks, that would be otherwise disconnected.

Betweenness centrality is a more comprehensive measure of the possibility an individual has to mediate relationships and span social divides in a network than are structural holes. Burt (1992) defines structural holes as the absence of a link between two actors both connected to a third actor. Although structural holes increases the amount of non redundant information the actor can gain thanks to the fact that his partners are not connected and thus they can not exchange information directly, structural holes do not consider the relations that other actors in the network may have with the same two unconnected actors. That is, the focal actor may not be the only one in the position to broker the relation. Moreover, two actors may be even directly connected and still belong to two distinct social divides or subgroups; in such a case, a third actor who was tied to each of them would not broker their relation but still would have access to their distinct ‘social worlds’. For these reasons, betweenness centrality seems to me a more suitable measure of how well actors span across social divides. Thus, following Mehra and colleagues (2001) and Cross and Cummings (2004), I used betweenness centrality to assess the social spanning activity of each actor. That being said, structural holes have proved to be extremely useful for assessing non-redundancy effects in ego-network studies in which data on direct ties and on ties (o lack of ties) between partners are the only available (e.g., Burt, 1992).

Before computing the betweenness centrality scores, I symmetrized the adjacency matrix. Symmetrization of the network data is preferred because of difficulty to interpret measures of betweenness centrality for nonsymmetric data. In

this case, symmetrization appeared an appropriate choice for an another reason too. As I was interested in the extent at which each individual got access and control over events and resources spread throughout the network by being “in the middle” of the routes connecting others, preserving the direction of these routes was less important than assessing the overall degree of participation in others’ exchanges while measuring betweenness centrality. To symmetrize the matrix I applied this rule: if either member of a pair provided the other with advice, I considered the pair as having a tie. To check if the results were affected by this definition, I also symmetrized the matrix by following the opposite rule: only if each member of the pair provided the other with advice, I considered the pair as having a tie. The pattern of results remained unchanged.

Partners’ diversity. I measured diversity in advice-giving partners with respect to educational background, function, and organizational unit. This variable was constructed as the number of different educational backgrounds, functions and organizational units represented by each advice-giving partners in the advice network. Managers reported to have quite different educational backgrounds. Most of them reported to have a bachelor or master degree in engineering (approximately 31%), while others reported to have a background in economics/business administration (22%), agriculture (18%), humanities (5%) and political sciences (2%). The remaining portion of them (22%) declared not to have an university degree; all of these managers had only a high school degree. Due to the impossibility to assign a specific background to people without an university degree, I decided to include all these people in a same category representing a ‘generic’ or ‘unspecific’ background. Having six different categories, this variable

ranged from 1 (receiving advice from partner all with the same background) to 6 (receiving partners representing six different backgrounds).

To assess diversity in an individuals' partners with respect to function and organizational unit I constructed similar variables. Functional diversity was measured by counting the number of different functions represented by advice-giving partners in the advice network. Although all managers in my sample were employed in what was broadly defined as the 'marketing and sales' department of the company, they hold quite different positions and performed quite different tasks according to the specific function within the department they were assigned to. Functions were highly complementary and included the marketing function (in which approximately 20% of managers were employed), the sales function (36%), the after sales function (9%), the retail function (4%), the key account function (2%), and the supply chain function (2%). In addition, approximately 18% of the sample was represented by business directors (those in charge of single business units) and 7% by managers responsible for dealing with importers in countries where the company did not have business units (those in charge of managing indirect export to other European countries). As business directors and export managers were engaged in different tasks and were assigned to different job assignments as compared to managers in one of the other functions, I considered these managers as representing two additional separated functions within the whole 'marketing and sales' department of the company. Indeed, given the high complexity and internal differentiation of the company's organizational structure, it seemed to me that a great variety in positions and actual work existed within the whole department. Interviews with some managers in my sample confirmed this impression. They perceived a great diversity between their own job's requirements

and tasks and those performed by colleagues in other ‘functional segments’ of their department. They also confirmed the complementary nature of their differentiated functions, giving reason to suppose that links with people in different functions could yield information useful to one’s own specific task-related problems, help a better understanding of joint dynamics and foster the development of synergic views of general, cross-functional, problems. Finally, I considered the Vice President of the company as a function on its own because of the impossibility to compare the tasks and responsibilities associated to this position to those of any other manager in the sample. Having identified nine functions overall, the variable measuring partners’ diversity with respect to function ranged from 1 (receiving advice from partner all holding a position within the same function) to 9 (receiving advice from partners representing nine different functions and job types).

I also considered diversity with respect to the organizational unit represented. My sample comprised managers based in 11 business units located in 10 European countries. Two business units were located in Italy in two different cities far from each other about three hundred kilometers; these units comprised 16% and 9% of the managers in my sample. As for the other units, one was located in UK (where approximately 16% of the managers were employed), one in France (13%), one in Germany (11%), one in Spain (9%), one in Belgium (9%), one in Denmark (7%), one in Austria (4%), one in Poland (4%), and one in Portugal (2%). Since there was a close correspondence between the range of organizational units and the range of countries represented in my sample (with only one exception, different business units corresponded to different countries and vice versa), partners’ diversity with respect to organizational unit mirrored their diversity with respect to geographical location as well. Since both types of diversity among

network partners might positively affect performance, I expected to find a strong (positive) association between the number of organizational units represented by one's partners and individual work performance. As I had eleven business units in my sample, this variable ranged from 1 (receiving advice from partner all based within the same unit) to 11 (receiving advice from partners located in highest possible number of different units).

Performance. I used supervisory ratings to measure individual work performance. I asked each manager to evaluate the overall performance of those who reported directly to him. Since people at a hierarchical level reported to people at a higher level, I obtained performance evaluations for all the managers except for the Vice President of the company, who did not report to anyone in my sample. Because of confidentiality issues I was not allowed to use formal evaluations as measures of performance. The company's evaluation processes took place every six months and was essentially based on the ability to achieve assigned goals. Each manager was provided with a list of goals (usually formulated in terms of sales, market shares and customers' portfolio management) weighted according to their relative importance; after six months, a score was assigned to each goal expressing partial or total achievement. The final score representing the evaluation was then obtained by multiplying scores by the corresponding weights and adding the products. As supervisors were those responsible for evaluations, I was assured that they were the most appropriate people in the company to express judgments reflecting internal evaluations. As suggested by a review on performance evaluations in work settings, supervisory ratings of performance are not necessarily biased and there is reasons to suppose that such ratings represent "valid reflections of true performance" (Arvey & Murphy, 1998: 163). Moreover, some studies

suggested that ratings collected for research purposes tend to be more reliable than administrative ratings used by companies for internal purposes (Harris, Smith, & Champagne, 1995). To limit any possible bias, I assured supervisors that their answers were to be used for research purposes only and would remain strictly confidential. Since the internal formal evaluations were expressed through a single score summarizing the overall level of achievement of assigned goals, from interviews with two supervisors it emerged that they found cognitively easier to express a single judgment capturing the overall level of performance of their subordinates instead of answering to a series of items on slightly different, performance-related, outcomes. Thus I yielded an overall rating through a single-item question consistent with the company's emphasis on achieving goals: "Please rate the performance of all the people who directly report to you (i.e. your subordinates) in terms of their ability to achieve the goals that are assigned to them on a scale from 1 (poor) to 7 (excellent)". The phrasing was adapted from Mehra et al. (2001).

Control variables

I controlled for some variables with a potential effect on the dependent and/or independent variables:

Tenure. Individuals who have been working in an organization for a long time are more likely to have formed relations with other organizational members than individuals just hired or working in the organization for a short time. As a result, high-tenure individuals are more likely to occupy central positions in the

social network than low-tenure individuals. I coded tenure as the length of time, in months, an individual had been employed by the company.

Job experience. Individuals who have been occupying a position longer in an organization, or who held the same position in other organizations in the past, are more experienced in doing their job and consequently are more skilled at dealing with work-related problems and meeting the requirements of their positions. Job experience is both conceptually and empirically different from tenure. An individual may have been employed by an organization for a short time, but have gained a great deal of experience in doing the same work in previous employments; it may also happen that an individual has been working in the organization for long, but has been promoted to the present position for short and have not ever occupied similar positions or did similar works in the past. I coded tenure as the length of time, in years, an individual had been holding his current position, both in the company and in other companies for which he had worked in the past (if that was the case).

Rank. Individuals holding high-rank-positions have more opportunities to interact with other organizational members than people employed at lower levels. High-ranking-individuals are more likely to occupy central positions in social networks as a consequence of their greater job responsibilities and greater decision-making authority. They may have supervisory roles which makes them interact with a higher number of subordinate individuals at the same time and/or intermediary roles to coordinate and control the use and transfer of resources within the organization. In addition, supervisors or directors are likely to have greater relevant experience and greater understanding of the expectations and responsibilities associated to lower job positions than peers (Morrison, 2002),

therefore they may be seen as more reliable potential source of information and be more sought for professional advice and feedback. There were four hierarchical managerial levels in the company. Using company records, I coded rank as 1 = functional manager (e.g., marketing managers), 2 = business director or export manager, 3 = member of the Vice President's staff, 4 = Vice President.

RESULTS

Descriptive Statistics

Table 1 presents means, standard deviations, and zero-order correlations among the variables. On average, respondents had been with the company for almost 207 months, corresponding to more than 17 years, and their experience in doing their job exceeded 95 months, corresponding to almost 8 years. Tenure was positively (but not significantly) associated with job experience, suggesting that most respondents had gained their experience in doing their current job while working in the company. Longer employment was also associated (although not significantly) to occupation of high-ranking positions, indicating that respondents who had been promoted to higher ranks were also those who had been employed in company for a longer time.

The patterns of correlations reveals a number of interesting associations between variables in these univariate test. First, individuals with shorter employment at the company, less experience in doing their job, and working at lower hierarchical levels tended to have a higher self-monitoring score; however only the first of these negative associations resulted significant ($-.31, p < .10$).

Second, higher self-monitors tended to report having a higher number of incoming advice relations (i.e., more partners providing them with advice) but not having spanning or intermediaries roles in the network. Although not significant and based only on univariate tests, these preliminary associations provided useful insights on the subsequent results. Indegree centrality was positively and significantly associated with betweenness centrality (.54, $p < .001$), indicating that popular individuals (those having more advice relations and thus receiving more support) tended to intermediate communication in the network by being in contact with people not connected one another. In addition, individuals receiving advice from a higher number of people, as well as individuals brokering advice relations, tended to have partners with more diverse educational backgrounds (coefficients were respectively, .80, $p < .001$, and .44, $p < .01$), in more different functions (.90, $p < .001$; .58, $p < .001$), and in more different units/countries (.83, $p < .001$; .60, $p < .001$). Having partners with different backgrounds or in many functions was also strongly associated with having partners in many different units (coefficients were respectively, .60, $p < .001$, and .72, $p < .01$), suggesting a possible differentiation between units in terms of internal available competences and functions performed. Finally, performance did not turn out to be significantly associated with any of the observed variables.

Table 1
Means, Standard Deviations, and Correlations^a

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Tenure ^a	206.69	127.77										
2. Job experience ^b	95.27	110.75	.23									
3. Rank ^c	1.44	.73	.14	-.07								
4. Self-monitoring	.46	.22	-.31*	-.22	-.12							
5. Indegree centrality	4.62	2.87	.12	-.03	.20	.23						
6. Betweenness centrality	29.49	46.89	.15	-.16	.68***	-.14	.54***					
7. Partners' diversity in educational background	2.87	1.14	.25	.10	.18	.06	.80***	.44**				
8. Partners' diversity in function	3.22	1.57	.24	-.05	.31*	.06	.90***	.58***	.79			
9. Partners' diversity in organizational unit	2.2	1.88	-.14	-.09	.33*	.16	.83***	.60***	.60***	.72***		
10. Performance	5.23	1.14	.09	-.14	.17	.00	.09	.25	.12	.08	-.06	

^a coded as the length of time, in months, that the respondent had been employed in the company

^b coded as the length of time, in months, that the respondent had been holding his current position

^c coded as 1 = functional manager, 2 = business director or export manager, 3 = member of the Vice President's staff, 4 = Vice President

+ p < .10; * p < .05; ** p < .01; *** p < .001

* N=45, except for performance (N=44)

Self-monitoring and Advice Relations at Work

I used hierarchical regression analyses based on OLS (ordinary least squares) regression equations to examine the effects of self-monitoring on structural positions in the advice network (Hypotheses 2, 3 and 4). I included tenure, job experience, and rank as control variables in all regression analyses at the first step. At the second step, I entered self-monitoring.

Table 2 presents the results of the regression analyses examining the effects of self-monitoring on occupying central positions in the advice network at work and on having diverse advice-giving partners. The results revealed that (controlling for tenure, job experience, and rank) self-monitoring was positively and significantly associated with prominent positions in the advice network ($\beta = 4.05, p < .10$), and negatively but not significantly associated with intermediary, spanning positions in the same network ($\beta = -14.70, n.s.$). Thus I found support for Hypothesis 2, stating that higher self-monitoring is associated with more incoming advice ties, but not for Hypothesis 4, stating that higher self-monitoring is associated with having more bridging ties in the advice network.

As for the effects of self-monitoring on forming advice relations with people different from each other (Hypothesis 3), I analyzed three other regression models. Controlling for tenure, job experience, and rank, I found no significant associations between self-monitoring and partners' diversity with respect to any of the three criteria I examined, that is educational background, function, and organizational unit. Although not significant, the associations were at least in the positive hypothesized direction (respectively, $\beta = .90, n.s.$; $\beta = 1.15, n.s.$; $\beta = 1.33, n.s.$). To summarize, high self-monitors reported having more partners providing

them with advice on whom to count when facing a work-related problem, but not having such a high number of different advisors, and consequently not to span divides in the social network.

Table 2
Results of Regression Analyses Predicting Structural Positions and Partners' Diversity in the Advice Network (N=45)

Variable	Indegree Centrality		Betweenness Centrality		Partners' Diversity in Educational Background		Partners' Diversity in Function		Partners' Diversity in Organizational Unit	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Tenure	.00	.00	.03	.03	.00	.00	.00	.00	.00	.00
Job experience	.00	.00	-.06	-.06	.00	.00	.00	.00	.00	.00
Rank	.74	.86	42.35***	41.93***	.25	.28	.60 ⁺	.63 ⁺	.93*	.96*
Self-monitoring		4.05 ⁺		-14.70		.90		1.15		1.33
Model F	.73	1.59	12.42***	9.25***	1.31	1.29	2.26 ⁺	1.98	2.33 ⁺	2.02
ΔF		4.00 ⁺		.33		1.21		1.13		1.05
R ²	.05	.14	.48	.48	.09	.11	.14	.17	.15	.17
ΔR^2		.09		.00		.02		.03		.02
Adjusted R ²	-.02	.05	.44	.43	.02	.03	.08	.08	.08	.09

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

Advice Relations at Work and Individual Performance

I used an hierarchical regression to examine the effects of centrality and partners' diversity in the advice network on individuals' work performance (Hypotheses 5, 6, and 7). As a first step, I entered in the hierarchical regressions control variables, that is tenure, job experience, and rank. As a second step, I entered self-monitoring to assess whether this variable was associated with work performance. Finally, I included structural positions and partners' diversity as a third step to ascertain whether these variables would predict work performance, and whether their inclusion in the regression equation would significantly reduce the effects of self-monitoring on work performance (if found at the second step). At the end, this process allowed me also to test the overall model depicted in Hypothesis 8, which sums up all the previous hypotheses predicting a double effect of self-monitoring on performance: a direct effect of self-monitoring on performance (cf., Hypothesis 1) along with a mediating effect of self-monitoring on performance via the effects on both structural positions and partners' diversity (cf., Hypotheses 2 through 7). Such model would be supported if any significant effect between self-monitoring and performance was neither fully eliminated nor significantly reduced after estimating the effects of the variables acting as mediators of the relationship, here represented by network variables (Baron & Kenny, 1986).

Table 3 presents results of the hierarchical regression with individual work performance as a dependent variable. Results presented in model 3 of the table show that, controlling for tenure, job experience, and rank, neither measures of centrality in the advice network was significantly associated with higher performance ratings. Although positive, the standardized regression coefficient for

indegree centrality was not significant ($\beta = .29, n.s.$), while the effect of betweenness centrality on performance, besides being not significant, was close to zero ($\beta = .01, n.s.$). Hence, Hypotheses 5 and 6 were not supported. Hypothesis 7 was also disconfirmed: partners' diversity with respect to both education and function was not significantly associated with performance, while partners' diversity with respect to organizational unit was significantly but negatively associated with performance ($\beta = -.46, p < .05$). To summarize, centrality in the advice network was unrelated to work performance, whereas, contrary to expectations, having advisors working in more organizational units had a negative effect on work performance rather than a positive one.

Concerning Hypothesis 8, results of models 2 and 4 show that self-monitoring did not have any direct or indirect significant effect on individual performance. Controlling for tenure, job experience, and rank, self-monitoring did not predict performance ($\beta = .10, n.s.$); consequently, entering self-monitoring in model 2 did not help explain additional variance in performance over model 1. Coherently with this result, entering self-monitoring after estimating the effects of the variables concerning structural positions and partners' diversity, did not lead to an improvement of model 4 over model 3. Therefore, Hypothesis 8 was not supported, either fully or partially. Instead, adding the variables representing network positions and partners' diversity significantly improved the overall model fit in model 4 over model 2: The full model presented in model 4 explained significantly more variance in performance than model 2, which contain only the controls and the self-monitoring variable, meaning that advice networks at work did play a role in predicting individual performance. However, the effect of such networks seem to be independent from self-monitoring: although self-monitoring

facilitates occupation of prominent positions in the advice network, these positions are not significantly related to higher levels of performance. In addition, organizational diversity of partners in the advice network negatively affects performance, but is not in turn affected by the self-monitoring orientations of individuals – high and low self-monitors seem not to be differently predisposed to form boundary-spanning relations with people working in other units of their organization.

Table 3
Results of Regression Analyses Predicting Individual Performance (N=44)

Independent variable	Model			
	1	2	3	4
1. Tenure	.00	.00	.00	.00
2. Job experience	.00	.00	.00	.00
3. Rank	.28	.28	.26	.31
4. Self-monitoring		.10		-.21
5. Indegree centrality			.29	.32
6. Betweenness centrality			.01	.01
7. Partners' diversity in educational background			.15	.14
8. Partners' diversity in function			-.28	-.30
9. Partners' diversity in organizational unit			-.46*	-.47*
Model F	.79	.58	1.25	1.09
ΔF		.01	1.50	.05
R ²	.06	.06	.22	.22
ΔR^2		.00	.16	.00
Adjusted R ²	-.02	-.04	.05	.02

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

ΔF and ΔR^2 report changes from the previous model, except for model 3, which report changes from model 1 to model 3;

Additional Analysis

To better understand these results and the apparent irrelevance of occupation of central positions in the advice network at work for individuals' workplace performance, I looked more closely at the variables predicting structural positions and diversity of partners in the network. Table 2 shows that higher levels of rank were significantly associated with higher betweenness centrality scores ($\beta = 41.93, p < .001$). To assess if rank could help explain differentials in individual performance via effects on structural positions, I performed an additional hierarchical regression analysis. Controlling for all other variables with a potential effect on performance, I first entered rank to test if different hierarchical levels were associated to different performance ratings. I included betweenness centrality on the next step. Mediation between rank and performance via betweenness centrality would be supported if a significant relationship between rank and performance would be eliminated or substantially reduced after controlling for the effects of betweenness centrality. Control variables (tenure and job experience) as well as all the variables included in the previous models were entered on the first step, rank was entered on the second step, and betweenness centrality on the third step.

Table 4 presents results of the hierarchical regressions with individual performance as a dependent variable and rank and betweenness centrality as potential predictors. As shown in model 2, controlling for all other variables except for betweenness centrality scores, higher levels of rank were significantly associated with higher work performance ($\beta = .60, p < .10$). As a consequence, the overall model fit significantly improved, with an additional 8 percent of the variance explained over model 1. To evaluate support for a mediation between rank

and performance via the occupation of a spanning, central position in the network, I examined whether the relationship between rank and performance was due to the significant relationship between rank and betweenness centrality. In doing that I proceeded by steps: in model 3 I assessed whether betweenness centrality had an effect on work performance, while in model 4 I assessed whether this effect could absorb that exercised by rank. Controlling for all the other variables except for rank, betweenness centrality had a small but positive and significant effect on work performance ($\beta = .01, p < .10$), and its inclusion in the regression equation did significantly affect the relationship between rank and work performance: The effect of rank on performance became insignificant after controlling for the significant effect of betweenness centrality on performance. Therefore, the mediation model was supported. I demonstrated by subsequent steps that rank explained significant variance in performance and in betweenness centrality, and that betweenness centrality explained significant variance in performance. Finally, I proved that, after controlling for the brokering positions occupied by individuals in the network, rank stopped explaining significant variance in work performance. These results indicate that the variance shared between rank and betweenness centrality did overlap with the variance that either of these variables shared with work performance. In line with these results, when included in separate steps, rank and betweenness centrality scores helped explain more additional variance over the baseline model 1 than do their concurrent effects over model 3.

To summarize, the higher performance of individuals holding high ranking jobs was explained by their differential success in occupying high-betweenness positions in the advice network: individuals in higher managerial ranks tended to

occupy strategically advantageous positions in the advice network which help them perform at higher levels than individuals in lower ranks.

Table 4
Results of Additional Regression Analyses Predicting Individual Performance (N=44)

Independent variable	Model			
	1	2	3	4
1. Tenure	.00	.00	.00	.00
2. Job experience	.00	.00	.00	.00
4. Self-monitoring	-.52	-.59	.05	-.21
5. Indegree centrality	.24	.37	.25	.32
7. Partners' diversity in educational background	.12	.14	.14	.14
8. Partners' diversity in function	-.16	-.32	-.24	-.30
9. Partners' diversity in organizational unit	-.29	-.44	-.43*	-.47*
3. Rank		.60 ⁺		.31
6. Betweenness centrality			.01*	.01
Model F	.60	.99	1.16	1.09
ΔF		3.42 ⁺	4.63*	.63
R ²	.11	.19	.21	.22
ΔR ²		.08	.02	.01
Adjusted R ²	-.07	.00	.03	.02

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

ΔF and ΔR² report changes from the previous model, except for model 3, which report changes from model 1 to model 3; model 4 is equal to model 4 of Table 3 except for the ordering of the variables

DISCUSSION

The research presented in this paper aimed at analyzing the effects of a personality trait, i.e., the so-called self-monitoring orientation, on the occupation of central positions and the selection of diverse partners in the advice network at work, as well as analyzing the effects of these positions and diversity in partners on individual work performance. This research also aimed at verifying the existence of a direct effect of self-monitoring on individual work performance independently of any network effect. Contrary to expectations, I did not find any significant relationship between self-monitoring and work performance: Higher self-monitoring was neither significantly associated with higher work performance, nor affected performance through mediating network variables. Notwithstanding, the research provided some interesting results. First, controlling for tenure, job experience, and rank, high self-monitors were more likely to occupy prominent positions in the advice network than low self-monitors (i.e., they reported having more advice-giving partners). Second, controlling for tenure, job experience, rank, self-monitoring, and structural positions, people whose advisors were distributed over more organizational units received lower work performance evaluations. Third, controlling for all other variables, people on higher levels in the hierarchy were more likely to occupy high-betweenness positions in the advice network (i.e., they reported having more relations connecting people who would be otherwise disconnected, they tended to be located on the shortest routes between others in the network), and this positions were in turn associated with higher work performance.

As expected, self-monitoring significantly predicted indegree centrality in the advice network. High self-monitors tended to be the object of more extensive

advice ties than low self-monitors. Compared to their low self-monitoring counterparts, they turned to more people for help or advice on work-related matters. This result is in line with high self-monitors' tendency to select partners on the basis of their proficiency in doing specific activities and their expertise in specific fields of knowledge. Low self-monitors, instead, seem to be more inclined to turn to a small group of well-liked and trusted people to ask them advice on a variety of different topics and work problems. Although different in size, high and low self-monitors' advice networks did not turn out to be different in internal diversity too. Results of the present study revealed that although high self-monitors tended to have a wider set of advisors than low self-monitors, these people were not more diverse one another than were those to whom low self-monitors turned to. Although positive, the association between self-monitoring and diversity in network partners were not significant. Consistent with this result but unexpected on the basis of what suggested by self-monitoring theory, self-monitoring was not predictive of a higher betweenness centrality in the advice network. This result also disconfirms that of Mehra et al. (2001) of a positive relationship between self-monitoring and betweenness centrality in friendship networks. This may be due to the fact that high self-monitors may be much more constrained in their choice of advice partners at work than they are in their choice of colleagues with whom share time after work and engage in leisure activities. This may be particularly true in some work contexts. Mehra et al. (2001) conducted their research in a high-technology firm that they described as a small organization characterized by an entrepreneurial culture in which informal communication among employees was encouraged and promoted by keeping the internal structure deliberately flat and composed by only three hierarchical levels. In addition, they reported that

employees were organized into fluid workgroups and therefore they did not form close teams. Such a context can be expected to be particularly conducive to cooperative relations among coworkers. Individuals employed in this type of organizations can find it relatively easier to ask and get help and advice from their coworkers than individuals employed in more structured organizations characterized by a higher level of ranks and tightly defined workgroups, tasks and roles. The research context of the present study was a large multinational company whose organizational units were spread over ten countries in Europe. This company was characterized by a complex organizational structure made up of many organizational levels and well-defined internal roles. Since I analyzed the relations existing among people responsible for the management of the whole organization, my sample comprised people located in more than one unit and in more than one country. Factors such as the physical distance and the intra-organizational boundaries existing among them, might have hindered high self-monitors from forming advice relations with people they would have turned to in other conditions. Another possible explanation may concern the strategy that I hypothesized is adopted by high self-monitors to select advice partners and mentors (i.e., selecting the most expert or knowledgeable person among a group of potential contacts). This strategy implies that high self-monitors are able to evaluate their potential partners skills and competencies, at a least at an overall level. In organizational contexts characterized by physical distance and intra-organizational boundaries high self-monitors may not have enough information and situational or interpersonal cues on which to rely to make such evaluations. Future research could explore these issues, in particular to examine whether physical or

organizational barriers may neutralize differences between high and low self-monitors' social relations and partners.

Surprisingly, self-monitoring was not a predictor of a better workplace performance. This result contradicts some previous research findings (e.g., Anderson, 1987; Caldwell & O'Reilly, 1982; Mehra et al., 2001; Moser & Galais, 2007). The irrelevance of self-monitoring to work performance is particularly surprising in the light of the type of workers I considered in my study, i.e., boundary spanners. Since these people mediate communication between the inside and the outside of the organization, the communication skills and self-presentation style connoting high self-monitors are generally considered to be particularly suitable for this kind of jobs. Research on the effects of self-monitoring on the work performance of this type of workers has confirmed this impression (Caldwell & O'Reilly, 1982; Moser & Galais, 2007). A possible explanation of my results may reside in the fact that self-monitoring is an important work-related predisposition only for certain types of boundary spanning jobs for which social skills and communication abilities can actually influence the final result of a business intercourse. Previous research has in fact analyzed types of workers whose impression management skills and persuading abilities could actually determine the success or the failure of a negotiation or a business transaction. Caldwell and O'Reilly (1982) analyzed field representatives of a franchise organization responsible for transfer information between the organization and franchised outlets. They reported that, among their respondents' job duties, an important role was played by mediating communication and manage conflicts between the organization and the franchisees. Accomplishing these tasks successfully may heavily depend on the empathy an individual is able to create

with his or her conversation partners and on the ability to adapt his or her expressive behavior to the probably different reactions of his or her counterparts. In this regard, high self-monitors were found to be more skilled at decoding others and interpreting their inner states than low self-monitors (Mill, 1984). Self-monitoring could therefore be an useful resource for people responsible for managing conflict and peace divergences of opinions between people or between organizations. Moser & Galais (2007) analyzed sales insurance agents working for one insurance company but self-employed in their own local agencies. They assess work performance by computing the mean number of new contracts sold over a period of three years. As reported in their study, new insurance contracts were a main source of income for their respondent and consisted of insurances sold to new customers or new types of insurances sold to already existing customers. Moreover, the insurance company handled many different types of insurances, like car insurances and life insurances. One can expect that the ability to sell new contracts depend, among other things, on the ability to persuade and convince new customers about the company's offering on one hand, and to develop trust relations with already known customers who bought other types of insurance in the past on the other. This may be particularly true with respect to customers without a clear understanding or not familiar with the type of product or service (i.e., a particular insurance) that is offered to them. This impression is reinforced by the freedom that self-employed local insurance agents generally have in negotiating contracts, especially with actual important customers or prospective important ones. In this context too, therefore, work performance may heavily depend on the impression management skills and persuading abilities of the single worker. My research context markedly differed from the just mentioned contexts. I analyzed the work

performance of people in charge of the day-to-day running of whole business units or whole functions inside these units. Although these people worked in boundary spanning functions such as marketing and sales, their job duties did not involve direct selling to potential or actual customers. Selling activities were part of the duties of field representatives of the companies responsible for selling the company's products to an external network of dealers. These people, although employed by the company and in charge of a crucial activity (i.e., selling the company's machines and equipment to dealers who in turn sold them to final customers), worked at a lower hierarchical level of the company that, I was said, could not be compared to that of the people I included in my sample. In addition, the company worked with a very high number of these people spread throughout each national market; therefore, their inclusion in the survey would have made it hardly manageable. These field representatives, besides selling the company's products to a large group of dealers, were also responsible for intermediating the relationship between the company and the dealers. Dealers could turn to them for every problems they encountered while selling the company's products or after the sales. These people were probably comparable more to those surveyed by Caldwell and O'Reilly (1982) and by Moser & Galais (2007) than to those I surveyed in my research. Although the people in my sample interacted with many other people outside the organization, these interactions probably required much less communication skills and persuading abilities than those usually required to field representatives and selling agents. Human resource management reassured me about this point. For instance, I was said that, although a business director could directly interact with important customers, most of the times these interactions were not aimed at convincing the customers of the superior quality of the

company's products or of the advantages connected to buying the company's products in comparison to those of other competitors, but at maintaining good and lasting relationships with the customers, getting feedbacks, and asking their opinion on actual and prospective initiatives of the company. Much more rarely, those interactions were aimed at negotiating selling conditions or assuring the customers about the high quality of the company's products and services. The latter kind of interactions would be probably more suited to the interpersonal styles of high self-monitors. Future research could further investigate this topic by analyzing the contextual factors and job characteristics under which self-monitoring may represent an important work-related phenomenon. My findings suggest that 'boundary spanners' may represent a too much generic category of workers to successfully relate self-monitoring to individual work performance. Although my findings does not provide new evidence supporting the existence of a direct relation between self-monitoring and performance, my interpretation of them supports the idea that "job type is a moderator of the validity of self-monitoring" (Moser & Galais, 2007: 84). However, they call attention to the need to better specify the job characteristics under which self-monitoring is expected to predict individual performance.

As for effects of the occupation of structural positions and partners' diversity on work performance, I found mixed support for my hypotheses. Controlling for all other variables, having partners working in different organizational units significantly predicted work performance. However, this relationship was negative rather than positive. Receiving advice from people working in a higher number of organizational units lowered, rather than enhanced, individual work performance. Having partners working in different functions was

not significantly associated with performance; however, in this case too, although not significant, the correlation was negative rather than positive. These results suggest a possible downside connected to diversity in network contacts. While providing less redundant information, diversity in network partners may also provide more inconsistent information. An individual asking advice on how to manage a work-related problem to diverse people (e.g., people from different units of the organization, or located in different countries, exposed to different environments and organizational practices) may receive quite diverse pieces of advice and suggestions in response to his or her call for help. This situation may enhance confusion rather than help clarify the problem. An individual provided with inconsistent pieces of advice will have to choose which of them put into practice; in doing so, he may feel uncertain about the best way to address the problem and find himself disoriented. Morrison (2002) found that for newly hired workers who have to develop work competences and learn how to master the job, it is better to have stronger ties to a set of closely connected people than to have weaker ties to a set of unconnected people. In other words, job learning is higher when information and advice on how to perform one's job is consistent and recurrent: 'newcomers need contacts whom they can approach again and again with questions and who are familiar to the newcomers' particular job and role requirement' (Morrison, 2002: 1150). Therefore, a possible interpretation of my findings is that for people who need advice on how to approach work-related problems, consistency of information is more important than its breadth and variety. Since similar partners who are connected among themselves are more likely to provide consistent information and pieces of advice than do distant, disconnected partners, similarity in advice partners is likely help more than diversity. This

argument detracts from the validity of my original hypothesis and help explain my disconfirming results. Future research might investigate the contextual conditions and types of workers (e.g., inexperienced versus experienced workers) or jobs (e.g., routine-based versus creative jobs) under which having diverse partners and receiving diverse information is more important than having similar partners and receiving consistent (and probably also redundant) information.

Surprisingly, indegree in the advice network was unrelated to work performance. That is, having more partners giving advice did not produce any significant effect on one's performance. This result contrasts with that of Roberts and O'Reilly (1979) that people with at least two advice ties (getting advice from at least two people) get higher performance ratings than people with only one or no advice tie (getting advice at most from one person). Sparrowe et al. (2001) found that indegree in the advice-seeking network (being approach for advice) was predictive of higher work performance. In the present study, I hypothesized that indegree in the advice-giving network (being provided with advice, approaching others for advice) was also predictive of higher work performance. However, although positive, the relationship between these variables was not significant. Probably, the quantity of advice one receives at work is not necessarily positively associated with the quality of advice he or she receives, and quality counts more than quantity.

In a separate analysis, I demonstrated that betweenness centrality in the advice network (indirectly connecting others through one's own advice relations) significantly predicted work performance, and was in turn significantly predicted by rank. People on higher levels of rank occupy better formal positions to broker relations between unconnected people. These positions, in turn, help get advantage

of the whole network of advice relations existing in the workplace to increase one's own performance. These findings extend previous research on the effects of betweenness centrality on work performance. Brokering relations at work was found to be important in a variety of different social networks. Mehra et al. (2001) found that betweenness centrality in the workflow network (acting as intermediary in the network of exchanges of input and output between coworkers, making the work flow from some parts of the organization to others) was positively related to work performance. They also found that betweenness centrality in the friendship network (being a friend to people who are not friend to each other) positively affected work performance. Similarly, Cross and Cummings (2004) found that intermediating the exchange of information and knowledge among others at work was positively related to one's performance. They also found that betweenness centrality in the awareness network (being aware of others' knowledge and skills) predicted work performance over and above the effects of betweenness centrality in the information network. Although in line with previous research, the results of the present research need to be confirmed by future investigations on the specific effect of advice networks on work performance. Moreover, my results concerning the effects of partners' diversity do not support an interpretation based on the information benefits gained through the occupation of high betweenness centrality positions, as originally hypothesized. Although these positions are likely to be associated with diversity and non redundancy in information, this fact might not be so advantageous to people searching advice and clear directions on how to behave in certain situations, as previously discussed. The positive effects of betweenness centrality in the advice network on work performance might derive mainly from control benefits (being able to control others' exchanges) than from information

benefits (being able to obtain more diverse and non redundant information).

Further research is needed to clarify this issue. In particular, further research could specifically focus on the explanatory power of advice networks at work and on the underlying mechanisms relating them to work performance.

Limitations

This study has some important limitations. The first concerns the direction of causality between variables. Although it seems to me that my arguments provide good reasons to support the direction of causality I hypothesized (or that I subsequently suggested to explain unexpected results), the cross-sectional design of my study do not allow me to exclude that a different casual ordering may exist. For example, in addition to rank influencing individuals' workplace performance via the effects of betweenness centrality in the advice network, the opposite is also conceivable – good performers could be promoted to higher formal positions thanks to their ability to emerge as leaders and intermediate communication and other forms of exchanges between other organizational members. Similarly, while individuals with very different advisors may suffer from a lack of consistency in the information and advice they gather, reaching poor levels of performance, individuals who perform poorly could feel a stronger need to be advised on work-related matters and more actively seek advice outside their own unit to increase their performance level. All these mechanisms are likely to be at work in real work settings. Longitudinal research designs are needed to actually verify them and disentangle reciprocal causal effects among variables. This discussion simply suggests that individual attributes and social networks are likely to co-evolve over

time and to affect one another. Future research could employ models explicitly developed to analyze network evolution and dynamics, such as those proposed by Snijders (2001, 2005) and colleagues (Snijders, Steglich, & Schweinberger, 2007; Snijders, van de Bunt, & Steglich, 2010). Other methodological advances and opportunities for future research are offered by exponential random graph (p^*) models, which aim at overcoming the limitations of traditional cross-sectional approaches by examining both individual attributes and social relations together in the form of social selection (concerning the antecedents of social ties) and social influence (concerning the consequences of social ties) models (Robins, Elliott, & Pattison, 2001; Robins, Pattison, & Elliott, 2001). Future research could fruitfully adopt these approaches.

The second limitation derives from the fact that I used a single-item measure to assess performance. A multiple-item question could yield more fine measures of performance. Moreover, in the present study work performance was essentially conceived as the ability to achieve assigned goals. This way of evaluating individual performance is largely used to assess the performance of individuals holding managerial positions; however it may be too typical of that category of workers and not representative of the ways through which people employed in lower ranks are generally evaluated. In other settings, quite different criteria might be used to assess performance, including the quality and the quantity of the work done, the efforts made in doing one's job, the ability to find solutions to work problems, to get creative work-related ideas, to absorb knowledge or to help coworkers' learning and knowledge abortion. The results of the present study have to be considered in the light of the quite specific way in which work performance was conceived. In addition, common method variance might be an

issue in this study since social network data and performance ratings had in part the same source: in fact, that those who provided performance ratings were themselves included in the network (see Podsakoff, Mackenzie, Lee, & Podsakoff, 2003 on this issue).

Third, the data for the present research were collected in one organization, which limit the possibility to generalize my findings to other settings. The organization I assessed was a large firm whose organizational units were geographically disperse over ten European countries. The individual actors comprising the social networks of this study (i.e., those responsible of the management of the whole company, the management team) were based in different organizational units and therefore considerably distant one from another. Probably, this feature crucially affected the formation of social ties among people in my sample, facilitating the emergence of advice relations between people in the same units and hindering them between people in different units of the organization. Single-unit organizations, as well as multi-unit organizations whose units are geographically less distant (e.g., in the same country or region), may have completely different social network structures inside. In addition, the differences between high and low self-monitors in starting and developing relations at work – with high self-monitors interacting with a broad and diverse set of disconnected people, and low self-monitors occupying homogenous and dense restricted social groups – may be less pronounced in this study than in other settings. Besides making it more difficult to cultivate interpersonal relations, physical distance may considerably reduce the situational and contextualization cues that high self-monitors need to make informed choices about whom to select as partners for their activities (cf. Snyder, 1974; Snyder et al., 1983). Indeed, the research context of the

present study was a firm with clear hierarchical levels, well-defined reporting relations, and distinct individual responsibilities and formal roles. This could also have affected the structure of social relations within the organization, such that people on distant levels of the hierarchy were also distant in network terms. For all these reasons, more research on these topics is needed both in similar and in different settings. As previously emphasized, further research on different settings, like small and cohesive organizations, might help discover quite different patterns of social relations and causal relationships. In addition, further research in similar settings is needed to confirm or disconfirm the results emerged in the present study. Until now, in fact, an incredibly few number of studies has focused on social networks in multinational organizations and no one of them did relate such networks to individual level outcomes (cf. Hansen, 1999; Tsai, 2002). Further research is therefore needed to verify the predictive power of social networks for individual outcomes in multinational organizations at large.

Fourth, my theoretical arguments often imply underlying mechanisms which I did not directly addressed. For example, I argued that high self-monitors are more likely to be involved in advice relations as a consequence of their preference to get involved in different activities with different partners, selecting those more expert in each activity. This behavioral tendency lead me to suppose that high self-monitors might also preferred to exchange knowledge with the most expert people among their coworkers, changing advisor according to their expertise in specific fields. Although I found empirical support for my hypothesis, I did not explicitly verify these underlying (supposed) mechanisms. Specifically addressing and testing these mechanisms may represent an interesting avenue for future research.

Finally, a limitation of this study stems from the fact that I analyzed the effects of advice ties and diversity in advisors without considering the quality and depth of advisors' expertise and knowledge. This aspect is likely to be strongly related to individual work performance. Clearly, one may have many advisors but not really expert on particular topics. Survey length precluded me being able to measure levels of expertise of each single participant in the study. This point represents another important opportunity for future research.

Other Directions for Future Research

One of the aim of the this study was to get evidence on the importance of communication and advice relations to individual performance. This link has been investigated having in mind types of work potentially enhanced by information available to others, for which an hypothesis about a positive association between advice relations and work performance might make sense. Boundary-spanning jobs involving direct relationships with actors outside the organization like selling agents, clients, retailers, suppliers, etc., or with actors in other units of the same (multi-unit) organization, are likely to be affected by communication and advice relations more than other types of jobs because of the higher degree of uncertainty connected with interacting with people having their own policies, objectives and strategies.

Besides for boundary-spanners, work-related communication and advice relations may be of particular importance to young or not experienced workers. Clearly, need for advice may be stronger for low-experienced individuals than for individuals already been long trained to perform certain tasks. So, advice relations

are likely to be of particular importance to individual performance in social contexts made up of new or relatively not experienced professionals. Contexts like graduate schools might be the ideal setting for studies seeking to test the reasonably expected – and perhaps taken-for-granted – influence of advice relations on the individual performance of low experienced individuals. Graduate students entering such schools are usually at their first experience as master or PhD students, finding themselves at dealing for the first time with problems, demands, expectations and requirements similar to those they will face when they start their professional or academic career. In addition, recent program improvement efforts in graduate business education have moved towards more cooperative and team-based structures to promote student teamwork and cohort development. These redesign efforts are consistent with the greater emphasis on employees' work in teams and interpersonal skills in organizational realities and work settings (Baldwin et al., 1997).

Although it is not one of the aim of this paper to make a comparison between organizational structures in graduate schools and work organizations, this discussion suggests that there might be good reasons to assimilate master or PhD students to newcomers in work organizations. Research on social relations that newcomers develop at work (e.g., Morrison, 1993; 2002) has shown that these relations may play an important role in affecting learning outcomes such as task mastery (being able to efficiently and successfully doing one's job) and role clarity (knowing the responsibility and constraints associated with one's position) in a new organizational environment. Future research might focus on communication and advice relations developed by graduate students during their master or PhD program, and their effects of students' performance. As Baldwin et al. (1997: 1395)

have pointed out, “much graduate business education now takes place in social settings containing peers and others”. These researchers focused on the advice, friendship and adversarial relations of MBA students to other MBA students in the same program, getting evidence of the importance of closeness centrality in the communication network made up of peers to the students’ grades. Future research might expand this framework by analyzing the effects of students’ embeddedness not just in peers’ networks but in the broader social context made up of peers, supervisors, faculty members and program directors, as well as by taking into consideration other types of relations than may have a part in students’ performance and achievements like work cooperation and co-authorship relations. This line of research could offer interesting guidelines and direction for the design and management of graduate master and PhD programs and schools, to the extent that students’ performance is seen a good and reliable indicator of the quality of such programs and schools. Relations like advice and cooperation are also likely to affect students’ satisfaction about the program (Baldwin et al., 1997), another outcome that can be of considerable interest to those responsible for graduate program design, improvement and management.

From a methodological standpoint, graduate schools are an interesting setting to investigate these phenomena for other reasons too. Research on newcomers’ social relations (e.g., Morrison, 1993; 2002) has generally adopted ego-network techniques and perspective to investigate the value and implications of such relations for this kind of subjects. Ego-network studies focus on social relations of a sample of independent, not connected, actors in order to relate the structure or topological configuration of a person’s network (made up of the ego’s direct ties as well as all ties between people to whom ego is tied) to outcomes at the

individual level of analysis, such as social support, power and attitudes (see Marsden, 1990 for a methodological review on “egocentric” network studies as compared to “complete” network studies). The ego-network approach may be very useful when actors under study represent an extremely small portion of all the members of any single organization. As explained by Morrison in her study (2002: 1153), “A focus on egocentric networks is ideal for studying organizational newcomers since they represent only a small fraction of the social system in which they are embedded. Here, taking a complete network approach would have meant studying either a very small number of newcomers or, alternatively, a network that was too large to analyze.”. This technique would not even be necessary with graduate schools, which have the advantage to be naturally comprised of low experienced subjects who represent a relatively large portion of their members. Put other way, these schools may be seen as a relatively dense pool of people facing a new experience and “learning the ropes” of a new job. For these people – like newcomers in work settings – having or not having advice or communication relations (to supervisors, faculty members, program directors and peers) is likely to make the difference. In such contexts, it is reasonable to hypothesize that students without stable sources of advice will find it harder getting positive results and high grades than students with a more developed personal advice network.

Other opportunities for future research emerge from the analysis of the literature on social network ties and individual work performance. Besides being few in numbers in comparison to those concerning other organizational outcomes, these studies left open many research questions. For example, it is not clear if being involved in many exchanges with coworkers is more beneficial or detrimental in terms of one’s work performance, given that relations may be seen

both as a mean to receive resources from others and as a mean to provide others with one's own personal resources. For example, while receiving advice may be positive to our performance because of what we learn from others, giving advice may be positive only to the extent that our relation is reciprocated, that is others will give us their advice in case of need. Future research might investigate the consequences of individual involvement in advice networks in contexts of high competition among coworkers. In such conditions, in fact, having non reciprocated advice relations with coworkers may be particular detrimental to one's performance, given the fact that helping others without being helped in turn may mean helping other to win against us. Individuals put into competition with each other for obtaining resources, or evaluated in comparative terms (the performance ratings are assigned to those who perform better, no matter how well perform the others), may find particular risky to help each other in case of need, refusing providing assistance or advice. In such cases, in which coworkers refuse collaborating and having positive relations, occupying certain positions, such as spanning structural holes (having direct ties to people who are not directly connected), may be particular advantageous and be used to outperform coworkers (Burt, 1992). For example, one can take advantage of the fact that two adversaries are not connected to each other to deal with them one by one, or to play them off against each other (Burt, 1992). This type of arguments are different from those used in this paper and from those typically advocated in studies on social networks and individual performance in the fact that they consider only the structure or configuration of one's ties without considering the content or flow of resources passing through relations. Unlike the many studies which focus on resources exchanged – or accessed by – actors through network ties, arguments like those

just mentioned seek to explain differentials in work performance by focusing exclusively on the pattern of interconnections existing among actors. This perspective or explanatory mechanism – that has been called ‘structuralist’ as opposed to ‘connectionist’ (see Borgatti & Foster, 2003 for a discussion of the two perspectives) – might have much to offer to research seeking to relate network ties and individual work performance, especially in highly competitive contexts in which workers may refuse to exchange resources, so providing no reason to advocate connectionist, resource-based, arguments (except for negative attitudes and feelings ‘flowing’ between workers). For example, in such contexts, individuals might decide to start alliances or coalitions to coordinate against a coworker-competitors in order to isolate him and thwart his task behavior. Occupying a central position in the coalition, or on the contrary being isolated (being excluded by the coalition or being the object of the coalition’s action), might have many implications for individual success and performance. Individuals might also divide themselves in different coalitions to organize action in groups. In this case too, the resulting structural configuration of the network made up of alliances and coalitions (whose nodes would be represented by coalitions and no more by individuals) might have several potential implications for group-coalition performance. Work organizations whose organizational culture encourages competition between coworkers might provide an ideal setting where to investigate these issues. Future research might explore the potential explanatory power of these arguments to explain work and group performance in highly competitive work settings.

This perspective would provide a considerable contribution to network literature both on individual and group performance. Indeed, at the individual level

of analysis (individual people as actors), most studies relating social network ties to work performance have explain individual performance as a function of resources (e.g., information, knowledge, material aid) or affective attitudes (e.g., friendship, support, negative emotions) flowing among actors via their network ties, whilst the structural, topology-based, perspective has been less adopted to explain work performance and more used to relate social relations to performance-related or career-related outcomes such as acquiring power (e.g., Brass & Burkhardt, 1992) and getting promotions (e.g., Burt, 1992). Similarly, at the group level of analysis (groups as actors), most studies have explain group performance in terms of the flow of resources (e.g. information) and attitudes (e.g. friendship ties crossing group boundaries) exchanged among groups in the network, instead of the topology of ties linking groups to each other. A review of studies on the relationship between network ties and performance at both level of analysis (interpersonal networks and individual performance, inter-unit or inter-group network and unit or group performance) can be found in Brass, Galaskiewicz, Greve, and Tsai (2004). Future research could also draw on both types of arguments (the resource-based one and the topology-based one) to evaluate the relative importance of using relations as conduits to obtain resources and as instruments to gain control and power benefits both to individuals and groups in different contexts and work settings.

Finally, network researchers might further explore the effects of self-monitoring on social relations that individuals develop at work. Although several hundred articles on the effects of self-monitoring on a huge number of behavioral outcomes have been published (Gangestad & Snyder, 2000), studies on the effect of this personality trait on the formation of network ties are still very few.

CONCLUSION

In summary, this study explored how self-monitoring relates to the formation of advice ties at work and how these ties relate to work performance. Building on self-monitoring and social network literatures, we developed a model which links self-monitoring, advice relations, and work performance. By verifying the effects of advice relations on work performance, the study shed light on the real value of such relations for individual advancement and success. At the same time, by verifying the effects of self-monitoring on the formation of advice relations, the study helped clarify if having or not having advisors at work may be a consequence of how individual socialize and interact with others and manage their public image. I argued that being a high self-monitor may help having more advisors but this condition is not an advantage in its own for getting higher performance ratings. My results suggest that, being strongly oriented to public performance, high self-monitors are more motivated to form advice ties than low self-monitors: Having many advisors allow them to increase the probability to have among their personal contacts the ones more acknowledged in any specific field. Low self-monitors, instead, being strongly oriented to the human facet of the problem, tend to select a small group of well-liked people as advisors: They do not share high self-monitors' instrumental view of interpersonal relations, and do not feel the need to enlarge their personal networks to always have the expert of the situation at hand. Probably their best advisor at work is someone whom they are personally close to, whom they profoundly esteem and with whom they share time after work. Although in this study I did not verify social relations other than the advice ones, there are

reasons to suppose the existence of multiple relations between low self-monitors and the people whom they turn to for advice at work.

The study also confirmed the importance of advice relations for individuals' work performance. However, what really counts is not the number of advisors one has, but the structural position he or she occupies in the whole network relatively to others. Intermediating others' relations get the individual an advantage in terms of work performance, and does not depend on self-monitoring: high self-monitors have the same probability than low self-monitors to act as go-betweens for others and therefore to achieve higher performance ratings. Rather, the occupation of more advantageous structural positions relates to rank: people on higher hierarchical levels are more likely to broker advice relations than people on lower levels. Controlling for rank did not allow me to find other predictors.

In addition to structural position, the location of an individual's advisors within the organization also affect his or her work performance; specifically, having advisors working for many different organizational units is detrimental to work performance. In my interpretation, this negative effect may be due to a loss of consistency and perceived reliability of the information and advice gathered by the individual in such a case. In the specific context of this study, however, having advisors in different units almost always implied having advisors in different countries too; this fact could have strengthen the negative effect of this variable. If this is true, physical distance among advisors should be interpreted as an additional threat for work performance; therefore, developing advice relations with close people should be more advantageous as strategy.

REFERENCES

- Anderson, L. R. 1987. Self-monitoring and performance in nontraditional occupations. *Basic and Applied Social Psychology*, 8: 85-96.
- Anderson, L. R., & Thacker, J. 1985. Self-monitoring and sex as related to assessment center ratings and job performance. *Basic and Applied Social Psychology*, 6: 345-361.
- Arvey, R. D., & Murphy, K. R. 1998. Performance evaluation in work settings. *Annual Review of Psychology*, 49: 141-168.
- Baldwin, T. T., Bedell, M. D., & Johnson, J. L. 1997. The social fabric of a team-based M.B.A. program: Network effects on student satisfaction and performance. *Academy of Management Journal*, 40: 1369-1397.
- Baron, R. M., & Kenny, D. A. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173-1182.
- Borgatti, S. P., Everett, M. G., & Freeman, L. C. 2002. *UCINET for Windows: Software for Social Network Analysis*. Harvard: Analytic Technologies.
- Borgatti, S. P., & Foster, P. C. 2003. The network paradigm in organizational research: A review and typology. *Journal of Management*, 29: 991-1013.
- Boxman, E. A. W., De Graaf, P. M., & Flap, H. D. 1991. The impact of social and human capital on the income attainment of Dutch managers. *Social Networks*, 13: 51-73.
- Brass, D. J. 1981. Structural relationships, job characteristics, and worker satisfaction and performance. *Administrative Science Quarterly*, 26: 331-348.
- Brass, D. J. 1984. Being in the right place: A structural analysis of individual influence in organizations. *Administrative Science Quarterly*, 29: 518-539.

- Brass, D. J. 1985. Men's and women's networks: A study of interaction patterns and influence in an organization. *Academy of Management Journal*, 28: 327-343.
- Brass, D. J., & Burkhardt, M. E. 1992. Centrality and power in organizations. In N. Nohria & R. Eccles (Eds.), *Networks and organizations: Structure, form, and action* (pp. 191–215). Boston: Harvard Business School Press.
- Brass, D. J., & Burkhardt, M. E. 1993. Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal*, 36: 44–470.
- Brass, D. J., Galaskiewicz, J., Greve, H. R., & Tsai, W. 2004. Taking stock of networks and organizations: A multilevel perspective. *Academy of Management Journal*, 47: 795-817.
- Burkhardt, M. E., & Brass, D. J. 1990. Changing patterns or patterns of change: The effect of a change in technology on social network structure and power. *Administrative Science Quarterly*, 35: 104–127.
- Burt, R. S. 1992. *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Caldwell, D. F., O'Reilly III, C. A. 1982. Boundary spanning and individual performance: The impact of self-monitoring. *Journal of Applied Psychology*, 67 (1): 124-127.
- Casciaro, T. 1998. Seeing things clearly: Social structure, personality, and accuracy in social network perception. *Social Networks*, 20: 331–351.
- Casciaro, T., Carley, K. M., & Krackhardt, D. 1999. Positive affectivity and accuracy in social network perception. *Motivation and Emotion*, 23: 285-306.
- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, 16: 297-334.
- Cross, R., & Cummings, J. N. 2004. Ties and network correlates of individual performance in knowledge intensive work. *Academy of Management Journal*, 47: 928–937.

- Cumming, J. 2004. Work groups, structural diversity, and knowledge sharing in a global organization. *Management Science*, 50: 352-364.
- Day, D. V., Schleicher, D. J, Unckless, A. L., & Hiller, N. J. 2002. Self-monitoring personality at work: A meta-analytic investigation of construct validity. *Journal of Applied Psychology*, 87, 2: 390-401.
- Davis, T. R. V. 1984, The influence of the physical environment in offices. *Academy of Management Review*, 9: 271-283.
- DeSanctis, G., & Monge, P. 1999. Communication processes for virtual organizations. *Organization Science*, 10: 693-703.
- Emirbayer, M., & Goodwin, J. 1994. Network analysis, culture, and the problem of agency. *American Journal of Sociology*, 99: 1411–1454.
- Freeman, L. C. 1979. Centrality in social networks: Conceptual clarification. *Social Networks*, 1: 215-239.
- Galaskiewicz, J., & Burt, R. S. 1991. Interorganizational contagion in corporate philanthropy. *Administrative Science Quarterly*, 36: 88–105.
- Gangestad, S. W., & Snyder, M. 2000. Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin*, 126: 530-555.
- Hansen, M. T. 1999. The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44: 82-111.
- Harris, M. M., Smith, D. E., & Champagne, D. 1995. A firm study of performance appraisal purpose: Research- versus administrative-based ratings. *Personnel Psychology*, 48 (1): 151-160.

- Ibarra, H., & Andrews, S. B. 1993. Power, social influence and sense-making: Effects of network centrality and proximity on employee perceptions. *Administrative Science Quarterly*, 38, 277–303.
- Kalish, Y., Robins, G. 2006. Psychological predispositions and network structure: The relationship between individual predispositions, structural holes and network structure. *Social Networks*, 28: 56-84.
- Kilduff, M., Day, D. V. 1994. Do chameleons get ahead? The effects of self-monitoring on managerial careers. *Academy of Management Journal*, 37: 1047-1060.
- Kilduff, M., & Krackhardt, D. 1994. Bringing the individual back in: A structural analysis of the internal market for reputation in organizations. *Academy of Management Journal*, 37: 87-108.
- Kilduff, M., Tsai, W., & Hanke, R. 2006. A paradigm too far? A dynamic stability reconsideration of the social network research program. *Academy of Management Review*, 31: 1031-1048.
- Klein, K. J., Lim, B.C., Saltz, J. L., & Mayer, D. M. 2004. How do they get there? An examination of the antecedents of centrality in team networks. *Academy of Management Journal*, 47: 952–963.
- Knoke, D., & Burt, R. S. 1983. Prominence. In R. S. Burt & M. J. Minor (Eds.), *Applied network analysis*. Newbury Park, CA: Sage, pp. 195-222.
- Krackhardt, D., & Porter, L. W. 1986. The snowball effect: Turnover embedded in communication networks. *Journal of Applied Psychology*, 71: 50–55.
- Labianca, G., & Brass, D. J. (2006). Exploring the social ledger: Negative relationships and negative asymmetry in social networks in organizations. *Academy of Management Review*, 31: 596-614.

- Labianca, G., Brass, D. J., & Gray, B. 1998. Social networks and perceptions of intergroup conflict: The role of negative relationships and third parties. *Academy of Management Journal*, 41: 55-67.
- Marsden, P. V. 1990. Network data and measurement. *Annual review of Sociology*, 16: 435-463.
- McPherson, J. M., Smith-Lovin, L., & Cook, J. M. 2001. Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27: 415–444.
- Mehra, A., Dixon, A. L., Brass, D. J., Robertson, B. 2006. The social network ties of group leaders: Implications for group performance and leader reputation. *Organization Science*, 17: 64-79.
- Mehra, A., Kilduff, M., & Brass, D. J. 2001. The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly*, 46: 121-146.
- Mill, J. 1984. High and low self-monitoring individuals: Their decoding skills and empathic expression. *Journal of Personality*, 52: 372-388.
- Morrison, E. W. 1993. Longitudinal study of the effects of information seeking on newcomer socialization. *Journal of Applied Psychology*, 78 (2): 173-183.
- Morrison, E. W. 2002. Newcomers' relationships: The role of social network ties during socialization. *Academy of Management Journal*, 45: 1149–1160.
- Moser, K., & Galais, N. 2007. Self-monitoring and job performance: The moderating role of tenure. *International Journal of Selection and Assessment*, 15: 83-93.
- Pastor, J. C., Meindl, J. R., & Mayo, M. C. 2002. A network effects model of charisma attributions. *Academy of Management Journal*, 45(2): 410–420.

- Podsakoff, P. M., Mackenzie, S. B., Lee, J. Y., & Podsakoff, N. P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88 (5): 879-903.
- Polodny, J. M., & Baron, J. N. 1997. Relationships and resources: Social networks and mobility in the workplace. *American Sociological Review*, 62: 673–693.
- Rice, R. E., & Aydin, C. 1991. Attitudes toward new organizational technology: Network proximity as a mechanism for social information processing. *Administrative Science Quarterly*, 36: 219-244.
- Roberts, K. H., & O'Reilly, C. A., III. 1979. Some correlates of communication roles in organizations. *Academy of Management Journal*, 22: 42–57.
- Robins, G., Elliott, P., & Pattison, P. 2001. Network models for social selection processes. *Social Networks*, 23 (1): 1-30.
- Robins, G., Pattison, P., Elliott, P. 2001. Network models for social influence processes. *Psychometrika*, 66 (2): 161-189.
- Sanders, K., & Hoekstra, S. K. 1998. Informal networks and absenteeism within an organization. *Computational and Mathematical Organization Theory*, 4(2): 149–163.
- Seibert, S. E., Kraimer, M. L., & Liden R. C. 2001. A social capital theory of career success. *Academy of Management Journal*, 44: 219-237.
- Snijders, T.A.B. 2001. The statistical evaluation of social network dynamics. In M.E. Sobel & M.P. Becker (Eds.), *Sociological Methodology*. Boston: Basil Blackwell, pp. 361-395.
- Snijders, T.A.B. 2005. Models for longitudinal network data. In P. Carrington, J. Scott, & S. Wasserman (Eds.), *Models and Methods in Social Network Analysis*. New York: Cambridge University Press, pp. 215-247.

- Snijders, T. A. B., Steglich, C., & Schweinberger, M. 2007. Modeling the co-evolution of networks and behavior. In K. van Montfort, H. Oud, & A. Satorra (Eds.), *Longitudinal models in the behavioral and related sciences*. Mahwah, NJ: Lawrence Erlbaum, pp. 41-71.
- Snijders, T. A. B., van de Bunt, G.G., & Steglich, C. 2010. Introduction to stochastic actor-based models for network dynamics. *Social Networks*, 32: 44-60.
- Snyder, M. 1974. Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30: 526-537.
- Snyder, M. 1987. *Public appearances, private realities: The psychology of self-monitoring*. New York: W. H. Freeman.
- Snyder, M., Berscheid, E., & Glick, P. 1985. Focusing on the exterior and the interior: Two investigations of the initiation of the personal relationships. *Journal of Personality and Social Psychology*, 48: 1427-1439.
- Snyder, M., & Gangestad, S. 1986. On the nature of self-monitoring: Matters of assessment, matters of validity. *Journal of Personality and Social Psychology*, 51: 125-139.
- Snyder, M., Gangestad, S., & Simpson, J. A. 1983. Choosing friends as activity partners: The role of self-monitoring. *Journal of Personality and Social Psychology*, 45: 1061-1072.
- Snyder, M., & Simpson, J. A. 1984. Self-monitoring and dating relationships. *Journal of Personality and Social Psychology*, 47: 1281-1291.
- Snyder, M., & Simpson, J. A., & Gangestad, S. 1986. Personality and sexual relations. *Journal of Personality and Social Psychology*, 51: 181-190.
- Sparrowe, R. T., Liden, R. C., Wayne, S. J. & Kraimer, M. L. 2001. Social networks and performance of individuals and groups. *Academy of Management Journal*, 44: 316-325.

- Sypher, B. D., & Sypher, H. E. 1983. Perception of communication ability. Self-monitoring in an organizational settings. *Personality and Social Bulletin*, 9: 297-304.
- Tsai, W. 2002. Social structure of “coopetition” within a multiunit organization: Coordination, competition, and intraorganizational knowledge sharing. *Organizational Science*, 13: 179-190.
- Turnley, W. H., & Bolino, M. C. 2001. Achieving desired images while avoiding undesired images: Exploring the role of self-monitoring in impression management. *Journal of Applied Psychology*, 86: 351-360.
- Umphress, E. E., Labianca, G., Brass D. J., Kass, E., & Scholten, L. 2003. The role of instrumental and expressive social ties in employees’ perceptions of organizational justice. *Organization Science*, 14: 738–753.
- Wagner, G. W., Pfeffer, J., & O’Reilly, C. A., III. 1984. Organizational demography and turnover in top management groups. *Administrative Science Quarterly*, 29: 74–92.
- Wasserman, S., & Faust, K. 1994. *Social Network Analysis: Methods and Applications*. Cambridge University Press.
- Zalesny, M. D., & Farace, F. V. 1987. Traditional versus open offices: A comparison of sociotechnical, social relations, and symbolic meaning perspectives. *Academy of Management Journal*, 30: 240-259.

CHAPTER 2
ORGANIZATIONAL COMMITMENT:
THE EFFECTS OF SELF-MONITORING AND SOCIAL NETWORKS ON
INDIVIDUALS' ATTACHMENT TO ORGANIZATIONS

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ABSTRACT

With few exceptions, studies on self-monitoring in the workplace have traditionally focus on individuals' personal advantages resulting from being an high self-monitor and on contributions given by such individuals to their organizations. My study points to the opposite direction by analyzing how low self-monitors, rather than high self-monitors, can give some important contributions to organizations' life. In particular I hypothesize that low self-monitors tend to develop more affective bonds with their coworkers and consequently a deeper emotional attachment to their organization than high self-monitors. I explore my hypotheses in the context of the social network of 45 managers constituting the top management team of a large multinational company. Results reveal that low self-monitors tend to have more trust relations at work, and that these relations make them more committed to their organization than high self-monitors. Moreover, individuals who are more supported in their career advancement tend to be also more committed to the organization. Additional analyses also reveal that individuals who are more involved in the trust network at work tend to receive more support to their career. Implications for individuals and organizations are discussed.

INTRODUCTION

In recent years an increasing number of studies have focus on the effects on organizational behavior exercised by a personality trait which goes under the name of self-monitoring (Snyder, 1974; see Gangestad & Snyder [2000] and Leone [2006] for recent reviews on the literature based on the concept). At its core, self-monitoring is the individual ability and tendency to adapt and control one's own behavior and self-presentation to convey a socially desired image of themselves and make good impression (Snyder, 1974, 1987). People who differ in this ability and behavioral tendency have been found to also differ in a variety of behavioral and attitudinal outcomes (Gangestad & Snyder, 2000), some of which specifically concern people's behavior in the workplace (Day, Schleicher, Unckless, and Hiller, 2002). Among the workplace outcomes which have been found to be affected by self-monitoring there are the ability to get career promotions (e.g., Kilduff & Day, 1994), to achieve higher performance ratings (e.g., Caldwell & O'Reilly, 1982; Mehra, Kilduff, and Brass, 2001), and to emerge as leaders (e.g., Dobbins, Long, & Dedrick, 1990).

Although the abilities and the advantages connected to being an high self-monitor have been long emphasized, a more restricted group of studies have concentrated on the downsides deriving from having such a psychological profile (e.g., Mehra & Schenkel, 2008). These include being more subject to stress at work by experiencing a higher degree of role ambiguity and role conflict (see Day et al., 2002 for a discussion of the main overall results on these issues). Another possible negative side connected to self-monitoring as seen from employers' and

organizations' point of view is the low level of organizational commitment that characterizes high self-monitoring individuals. Compared to low self-monitors, high self-monitors have been found to be more willing to leave their organization in response to potential prospective more advantageous working conditions offered elsewhere (e.g., more money or more prestige connected to a new employment) (Jenkins, 1993). Consistently with this finding, high self-monitors have been also found to be more likely than low self-monitors to change employers in the early stages of their career (Kilduff & Day, 1994). High self-monitors' lower commitment to their organization is not surprising and is even expected on the basis of the socio-psychological literature on the trait (Gangestad & Snyder, 2000). By nature, high self-monitors are less committed to their friends (Snyder, Gangestad, & Simpson, 1983), dating partners (Snyder & Simpson, 1984) and sexual partners (Snyder, Simpson, & Gangestad, 1986), as demonstrated by their willingness and tendency to change partners according to the occasion and the benefits connected to appearing in public with each of them (Snyder et al. 1983; Snyder, Berscheid, & Glick, 1985). Jenkins (1993) reported two other findings confirming the utilitarian and pragmatic nature of high self-monitors as compared to the more principled and transparent nature of low self-monitors: (1) organizational commitment relates more to turnover intentions for low self-monitors than for high self-monitors, and (2) job satisfaction relates more to turnover intention for high self-monitors than for low self-monitors. That is, self-monitoring is a moderator of the relationship between organizational commitment and the intention to leave the organization, as well as of the relationship between job satisfaction and the same intention. In particular, for high self-monitors, commitment is not a strong predictor of turnover intentions: while for low self-

monitors this holds true (the higher the commitment the lower the intention to leave the organization), for high self-monitors commitment is a quite indifferent factor for deciding if leaving or staying in the organization. By contrast, job satisfaction significantly help explain high self-monitors' intentions to leave: the higher their job satisfaction, the lower their turnover intentions. These results confirm the utilitarian disposition of high self-monitors: while low self-monitors seem to base the decision about their staying or leaving the organization mostly on the degree of attachment they feel to the organization, high self-monitors seem to base their intentions mainly on the degree of satisfaction they get from their job in their specific workplace. As Jenkins (1993: 90) shortly, but effectively, commented: “ [for high self-monitors] job satisfaction appears to discriminate better between those who intend to leave and those who intend to stay. As long as a high self-monitor is content, it is unlikely he/she plans to leave.”. Therefore, exactly as they do in their private lives, high self-monitors do not seem to be affected by affective or emotional considerations when making decisions about their work life.

Although the psychological literature on self-monitoring offers many theoretical grounds for interpreting the negative relationship between self-monitoring and organizational commitment, these interpretations largely remain to be verified. That is, although there is evidence for a statistical significant negative relationship between self-monitoring and organizational commitment, the theoretical rationale for the relationship has remained untested. Therefore, the underlying motivations and logic justifying a presumably negative relationship between self-monitoring and organizational commitment is still an open issue. In their study on self-monitoring and behavioral turnover (actual changing

workplace), Kilduff and Day (1994: 1049) argued: “High self-monitors are likely to be less attached than low self-monitors to the network of friends and colleagues at their current places of employment and to be more flexible about the possibility of forming new relationships elsewhere.”. Although they found a positive relationship between self-monitoring and the tendency to change workplace, they did not verified the underlying social network-based mechanisms through which they justified and explained their findings. In other words, although extant literature support the existence of a negative relationship between self-monitoring and organizational commitment, the role of social networks and interpersonal relations in mediating the relationship has not yet verified.

In the present paper I will specifically address these issues. In particular, I will test if self-monitoring relates to social relations and if social relations in turn relate to organizational commitment. As suggested by self-monitoring theory, I expect that high self-monitors are less likely to get involved in network of strong relations at work. To test this hypothesis, I will relate self-monitoring to the number of relations (both incoming and outgoing) involving the individual in a prototypical network of strong relations: the trust network. I then expect that individual involvement in such a network will be positively related to organizational commitment. In addition to trust relations, I will also explore the effects, on organizational commitment, of individual embeddedness in another social network at work: the career support network. I expect that the number of an individual’s incoming career support relations will also contribute to explain his or her commitment to the organization.

THEORY

Self-Monitoring and Social Relations

Self-monitoring is a personality trait that refers to the extent to which an individual can and does engage in the self-control of expressive behavior (Snyder, 1974).

High self-monitors are individuals who tend to control their self-presentation and expressive behavior to convey to others appropriate social images of themselves.

Like actors on a stage, they constantly engage in the construction of public appearances by playing different roles and displaying different selves according to the situation (Snyder, 1987). In doing so, they make use of their ability to adapt both their verbal and non verbal behavior (e.g., their facial expression, their body posture and gestures) to appear the ideal person for the situation at hand (Snyder, 1974; Snyder, 1987). Consistently with this predisposition, high self-monitors have a pragmatic, quite flexible, conception of themselves: They tend to describe themselves according to the specific role they play in specific situations. Besides monitoring themselves, these individuals have also the tendency to monitor their surroundings in search of cues to social behavioral appropriateness: They are high sensitive to their surroundings and are both willing and able to model and imitate the behavior of others in the same situation who appear to be behaving appropriately (Snyder, 1974). Moreover, being guided by contextual factors, high self-monitors' behavior tend to lack consistency across situations requiring different behaviors and attitudes (Gangestad & Snyder, 2000). By contrast, low self-monitors are individuals who are not able and/or not motivated to adapt their

self-presentation to meet others' conceptions of behavioral appropriateness. Besides being unable to control different channels of expression to impersonate different roles according to the situation, low self-monitors are also usually unwilling to play with their images to impress others (Gangestad & Snyder, 2000). They express behavior that is consistent with their inner attitudes and emotions rather than tailoring it to the situation (Snyder, 1974). They reject put-on social images built to achieve social ends and have a principled, consistent view of themselves: They describe themselves in terms of stable traits, enduring dispositions, and other identity characteristics that are thought to reside within people and are expected not to vary from situation to situation (Snyder, 1987). Being an expression of personal attitudes, feelings and dispositions rather of situational dictates and pressures, low self-monitors' behavior show greater consistency across situations than does high self-monitors' behavior (Gangestad & Snyder, 2000).

Individual differences in self-monitoring have been found to be associated with individual differences in creating and managing interpersonal relations (Snyder, Berscheid, & Glick, 1985; Snyder, Gangestad, & Simpson, 1983; Snyder & Simpson, 1984; Snyder, Simpson, & Gangestad, 1986). High self-monitors tend to choose partners for their social activities on the basis of their potential partners' skills and abilities in doing those activities; consequently they tend to change partner according to the activity at hand (Snyder et al., 1983). This strategy for selecting partners for leisure-time activities is consistent with high self-monitors' strive for the situational appropriateness of their self-presentation in public: engaging in an activity with a person particularly skilled at doing that activity or knowledgeable in a specific field increases the opportunities they have to perform

in appropriate ways (e.g., at high levels). Moreover, since high self-monitors tend to engage in an activity or situation with a partner and in another activity or situation with another partner, they tend to have a relatively high number of partners for their social activities. This implies that high self-monitors' partners have few opportunities to come in contact and spend time with each other because they are approached for different occasions and ends (Snyder et al., 1983; Snyder, 1987). That is, high self-monitors tend to live in partitioned, compartmentalized social worlds in which they engage in specific activities with specific partners and in which their partners have rare opportunity to see each other (Snyder et al., 1983). This feature of high self-monitors' approach to managing social relation is consistent with and functional to their social style: appearing in public with different persons in different occasions and social events allow high self-monitors to display inconsistent identities and play quite diverse roles without their partners witnessing them projecting so different images of themselves and behaving in so different ways (Snyder, 1987). By contrast, low self-monitors select their partners with a remarkably different approach. They choose partners on the basis of their global similarity and general likability and tend to retain the same partners for many, sometimes for most, of their activities (Snyder et al., 1983). That is, they tend to live in relatively homogeneous and undifferentiated social worlds in which they interact with a small number of well-liked, similar-to-themselves, partners across a variety of activities and situations. One consequence of this strategy is the creation of a supportive climate in which low self-monitors can feel free to be themselves, revealing their true dispositions and attitudes (Snyder et al., 1983). Moreover, by spending time with the same people across different activities, low

self-monitors are more likely to develop strong ties and a deep feeling of attachment to their partners than are high self-monitors.

Differences between high and low self-monitors in commitment to interpersonal relations are also confirmed by studies on high and low self-monitors' dating and romantic relations (Snyder et al. 1985; Snyder & Simpson, 1984). High self-monitors are more willing to leave their current dating partner to engage in the same activities with an alternative partner, as well as to terminate a current relationship in favor of an alternative one (Snyder & Simpson, 1984). Moreover, when involved in an exclusive relationship with a partner, they report to have dated steady, exclusive partners for a shorter period of time than do low self-monitors; instead, when they are not involved in an exclusive relationship, they tend to report more occasional dating relationships than low self-monitors (Snyder & Simpson, 1984). As for low self-monitors, they express little willingness to spend time with partners other than their current dating partners (if they had the opportunity to do that), and report having no intention to end their current dating relationships. They also tend to report having exclusive dating relationships for longer periods of time; in addition, low self-monitors' relationships are characterized by a faster growth of intimacy in time than are high self-monitors relationships. High and low self-monitors also differ in the way they select partners for a dating relationship. High self-monitors are more interested in the exterior appearance of their potential partners than in their dispositions and personality characteristics; they tend to select partners with an attractive physical appearance, probably because this characteristic enhances their own status in the eyes of others (Snyder et al. 1985). On the contrary, low self-monitors are especially attentive to the interior personal attributes of their potential partners rather than to their

physical appearance; in particular, they prefer partners with whom they share values, traits and dispositions. Finally, a study on high and low self-monitors' orientation toward sexual relations revealed that high self-monitors are more willing to have – and do have more – sexual relations with people to whom they are not psychologically close. By contrast, low self-monitors are more reluctant to have – and do have less – sexual relations with people with whom they are not committed: they tend to report having these relations only with people with whom they have a special affective bond, and are therefore less likely to have occasional sexual partners (Snyder et al., 1986).

In general, these findings show that high self-monitors tend to make lower emotional investments in their interpersonal relationship than do low self-monitors. Although high self-monitors find it more easy to establish social contact and start relations than do low self-monitors (Ickes & Barnes, 1977; Shaffer, Smith, & Tomarelli, 1982), these contacts, even if intimate or romantic, are less likely to develop into strong affective attachments; moreover, high self-monitors are less invested in maintaining relationships for long periods of time (Snyder et al. 1985; Snyder & Simpson, 1984). By contrast, although low self-monitors tend to find it more difficult to establish social contacts and start interpersonal relations (Ickes & Barnes, 1977; Shaffer et al., 1982), once established, their relations are characterized by a stronger affective commitment and a higher longevity. Moreover, compared to low self-monitors, high self-monitors seem to be driven by more utilitarian evaluations when starting and managing their relations: they choose partners who can help them perform better in public and dating partners whose image can enhance their own one.

High and low self-monitors may have similar uncommitted and committed orientations to interpersonal relations even in the workplace. Due to their nature, low self-monitors may be more inclined to form strong affective ties with their coworkers than high self-monitors. They may tend to develop such strong relations with a relatively small number of people whom they feel particularly similar to themselves, for instance with whom they share interests, attitudes and opinions. Their tendency to be part of small cohesive subgroups may imply the formation of multiple interpersonal relations both between themselves and each of their partners and among their partners. With well-liked people, low self-monitors may tend to form interpersonal relations above and over those strictly required and imposed by their job duties: Although in general low self-monitors tend to be less extroverted and more reserved than high self-monitors, they may find themselves involved in strong relations at a higher rate than high self-monitors, in the workplace as well as in their private lives. By contrast, high self-monitors' tendency to engage in interpersonal relations according to the immediate 'utility' or benefits they can gain, makes it plausible to suppose that they adopt a similar approach when interacting with others at work. They may select people on the basis of the advantages they can actually provide them, that is, they may be more interested in the 'material' reward of their relations (e.g., opportunities for professional advancement, reputational effects, etc.) than in the psychological benefits usually provided by strong affective relations (e.g., psychological support, sympathy, encouragement). Moreover, they may be less sincere in the manifestation of their expressive feelings, as suggested by their large use of ingratiation tactics (Turnley & Bolino, 2001). They may also use their relations as means to achieve promotions and status, as suggested by the greater number of high status friends and mentors

they tend to have (Mehra, Leonard, & Katerberg, 2003). This expected behavior is in line with high self-monitors' tendency to associate with people whose image can enhance their own one, as found in a study on high and low self-monitors' social relations out of work (Snyder et al., 1985). In addition, there are no reason to not expect that they intentionally change partners at work according to their skills as they do when choosing partners for their extra-work activities. In the long run, their tendency to use relations as means to achieve social ends and their manifestation of feelings purposely tailored to impress others, may make others to see them as people whose priority is to take advantage of the situation to turn it in their favor and advance in their career. That is, over time, their uncommitted orientation to interpersonal relations may be detrimental to the level of trust others are willing to put on them. Due to their pragmatic and sometimes even opportunistic behavior, high self-monitors may be personally less motivated to develop strong affective relations with others as well as others may be less willing to form or maintain these relations with them. Therefore, both the outgoing and the incoming social relations that high self-monitors develop at work may be characterized by a lower level of affectivity and commitment than those developed by low self-monitors. Following this line of reasoning, I hypothesize that high and low self-monitors differ in their level of embeddedness in strong affective networks in the workplace. I focus in particular on a prototypical strong relation (i.e., trust) and on a measure of involvement in a social network which take into account both the incoming (behaviors, attitudes or feelings that others feel toward us) and outgoing (behaviors, attitudes or feelings that we feel toward others) relations directed to and starting from an individual: namely degree centrality, that is the total number of

relations of a certain type, in any direction, in which an individual is involved. I therefore predict:

Hypothesis 1: Self-monitoring is negatively related to degree centrality in the trust network.

Social Relations and Organizational Commitment

Social relations may act as valuable sources of social and instrumental support in the workplace (Lin, 2001). Besides affecting individual performance and career-related outcomes (Brass, 1985; Burt, 1992), social ties have important consequences for affective outcomes: they are related to individuals' satisfaction about their life and their work, and to their mental and even physical health (e.g., Cohen, Doyle, Skoner, Rabin, & Gwaltney, 1997). In the workplace, informal social relations are crucial sources of social support and can reinforce the individual's identity and recognition (Krackhardt, 1992; Lin, 2001). House (1981) describes four types of social support: (1) Emotional (e.g., esteem, trust, concern, listening); (2) appraisal (e.g., affirmation, feedback, social comparison), (3) informational (e.g., advice, suggestion, directives, information), and (4) instrumental (e.g., aid-in-kind, money, labor, time, modifying environment). All these forms of social support were found to help workers coping with stress and alleviate the negative effects of exhaustion (House, 1981), thereby reducing employee burnout and turnover intention (Koeske & Koeske, 1993; Lee & Ashforth, 1993). Social ties can also facilitate acceptance and legitimacy in groups and organizations, and play an important role in the socialization of new employees

(Bauer, Morrison, & Callister, 1998; Jablin & Krone, 1987; Sherman, Smith, & Mansfield, 1986; Morrison, 1993, 2002; Reichers, 1987). For instance, Morrison (2002) found that newcomers who had developed strong friendship ties with experienced members felt more integrated into their work group and more attached to their organization overall than newcomers who had not developed such strong ties. Roberts and O'Reilly (1979) found an early evidence on the effects of social relations on organizational commitment; they found that participants in the advice network (i.e., individual having two or more advice ties) were significantly more committed to the Navy than were isolates (i.e., individuals having less than two links) in three military organizations. Eisenberg, Monge, and Miller (1984) found a different relationship between involvement in the work-related communication network and organizational commitment for salaried and hourly employees: salaried employees who were more connected were also more committed, while only hourly employees who were *highly* connected were also found to be more committed.

Based on the extant literature, it is reasonable to hypothesize that trust relations at work can strongly affect the degree of commitment that individuals feel to their organization. Trust is indeed an affective relation underlying a positive and open attitude toward another person; for its meaning and functions, trust is a desired fundamental component of people's life. Trust is often a prerequisite for the development of other instrumental or expressive relations among individuals as well as entire organizations (Gulati, 1995; Chung, Singh, & Lee, 2000). In the workplace, trust is one of the primary sources of social support; therefore, having or not having such relations is likely to make the difference in terms of an individual's attitude toward his or her organization and work group. In this regard,

outgoing and incoming trust relations are likely to be equally important for individuals and their affective outcomes. Outgoing trust relations (trusting others) are likely to positively affect the emotional and psychological well-being of the individual as they contribute to the creation of a working environment in which he or she can feel free to express him- or herself without fearing of attacks, thereby reducing threats and anxiety. These positive relations are in turn likely to translate into an higher individual attachment to the organization itself. In addition, incoming trust relations (being trusted by others) are likely to increase an individual's feeling of acceptance and belonging to the organization thanks to others' open and sincere attitude and behavior toward him or her. I therefore predict that individuals' overall involvement in the trust network at work, as determined by both their incoming and outgoing trust relations, is positively related to their organizational commitment. Degree centrality, as defined as the total sum of both reciprocated and not reciprocated ties in which an individual is involved, represents an useful measure to summarize the effects of both incoming and outgoing social relations. Therefore, I predict:

Hypothesis 2: Degree centrality in the trust network is positively related to organizational commitment.

The degree of commitment an individual feels to his or her organization may also depend on the extent to which others take active interest in his or her professional growth and advancement. Besides being a vehicle for getting promotions and advancing in the career path, mentoring and career support relations fulfill important psychological functions and respond to a variety of development needs

(Berlew, 1991; Kram, 1985, 1986). Kram (1985) described two major functions provided by mentors to their protégés: (1) Career-related (e.g., sponsorship, coaching, exposure, and visibility) and (2) psychosocial (e.g., role modeling, friendship, and acceptance). Later evidence has suggested that the extent to which mentors serve these function is likely to depend on the type of mentoring relation (formal or informal) existing between mentors and protégés (those who are mentored): Formal mentors were found to fulfill more psychosocial function than career-related functions for their protégés, and, in comparative terms, informal mentors were found to provide substantially more career-related help to their protégés than that provided by formal mentors to their own protégés (Chao, Walz, & Gardner, 1992). Ragins and Cotton (1998) describe the differences between formal and informal mentoring relations in the following way: Formal mentorships are usually established by a third party through an assignment or matching process, and are typically of a short duration, ranging from six months to one year (Kram, 1985; Murray, 1991). Informal mentorship, instead, occur naturally between the parties and generally last more, often three to six years (Kram, 1985; Murray, 1991). Another important distinction to understand the meanings and dynamics of mentoring relations has been offered by Kram and Isabella (1985), who distinguished between conventional and peer mentoring relations. Specifically, conventional mentorships are typically characterized by substantial differences in age and organizational rank between mentor and protégé, and by one-way helping dynamics (clearly pointing only from the mentor to his or her protégé). Peer mentorships are instead characterized by a higher similarity between mentor and protégé in age and/or rank, and by mutual exchanges between the parties. Although different in nature, peer mentoring relations has been found to fulfill a variety of

career-related and psychosocial functions similar to those offered by conventionally defined mentoring relations (Kram & Isabella, 1985).

Literature on mentoring at work suggests that mentoring relations may have important consequences for organizational commitment. As explored in this study, commitment is a positive affective or emotional attachment to the organization that implies identification with, involvement in, and enjoyment deriving from being a member of, the organization (Allen & Meyer, 1990; see the authors for a presentation and discussion about other forms of commitment individuals may feel toward organizations). So defined, commitment is likely to be affected by the extent to which the organization proves to reciprocate it by taking care of the individual's career satisfaction and advancement. As noted before, mentoring and career support relations are major sources of instrumental and psychological support for individuals (Kram, 1985). They are in fact sources for both objective outcomes (such as promotions, overall compensation, status) as well as for affective outcomes (such as work satisfaction, feeling of being appreciated and rewarded by the organization, motivation). Both these types of outcomes are in turn likely to be sources of a greater overall commitment, reinforcing the motivation to stay and participate in the organization. Due to the nature of mentoring and career support relations, incoming relations are more likely to predict organizational commitment than are outgoing relations: indeed, incoming relations best reflect the help and support *received* by the individual within the organization. Therefore I hypothesize that occupying more prominent positions in the career support network (i.e., receiving more career support, as measured by the number of incoming career support relations, that is indegree centrality) is a predictor of a higher organizational commitment. In other words:

Hypothesis 3: Indegree centrality in the career support network is positively related to organizational commitment.

METHODS

Sample

I conducted my research with managers employed in the marketing and sales department of a large multinational company in the agricultural equipment industry. In Europe, the company owned 11 business units located in 10 countries engaged in the distribution of equipment and machinery for agricultural activities to the European market. In some national markets where the company did not own a unit, business was run by managers responsible for dealing with importers. I addressed my survey to 47 managers employed in the marketing and sales department of the company, in charge of the day-to-day running the company's European commercial operations. During the data collection, one manager left the company while another was substituted by a manager who was already included in the sample. The remaining 45 managers completed the entire survey. They were all men. The average respondent was 45.98 years old (s.d. = 7.27), had worked in the company for 206.69 months (s.d. = 127.76), and for his current unit for 88.33 months (s.d. = 80.26). As for nationality, 31.1 percent of the respondents were Italian, 17.8 percent were British, 13.3 percent were French, 13.3 percent were German, 6.7 percent were Danish, 6.7 percent were Belgian, 4.4 percent were Spanish, 2.2 percent were Portuguese, 2.2 percent were Polish, and 2.2 percent were Dutch. As for race, they were all Caucasian.

Data Collection

The data used in this study were collected as part of a larger data collection effort. Data were collected via an e-mail survey which took respondents about 30-35 minutes to complete. The full effort consisted in the administration of two separate questionnaires and included self-reported scales and sociometric answers for a number of additional variables and social relations respectively. The data used in this study were collected by means of the first questionnaire. The questionnaire was translated (and back-translated) from English to French, Italian, and German by three independent translators. Although English was widely used within the company at all levels (i.e., it was the company's official language), this procedure assured the full comprehension of the questions among respondents. The four languages were chosen as they reflected the different mother tongues and nationalities of participants. The only exception was represented by Spanish participants: although I proposed to include a Spanish version of the questionnaire, the company assured me that it was not necessary since they mastered both English and Italian very well. The English version of the questionnaire was pretested and discussed with three human resource managers and the Vice President of the company to ensure correct use of relevant language and interpretation of the instrument.

The questionnaire (in the four linguist versions) was sent to participants by the company's corporate offices as attached to an e-mail message informing them of the survey and asking for their cooperation. Each respondent was invited to complete the version of the questionnaire which was written in his mother tongue

or second language (for Spanish participants). Along with the questionnaire, participants also received a letter from the researcher describing the research project and assuring confidentiality. They were instructed to send back their completed survey directly to me, either via mail or via e-mail as they preferred. The questionnaire circulated in a special electronic format allowing the respondent to fill it out completely on his pc without printing it. While retaining all the advantages connected to online survey, completing my questionnaire did not require any Internet connection, and was therefore even more flexible than online survey. Since my respondents spent a large portion of their working time traveling abroad, this condition assured that they could have filled out the questionnaire in any moment without particular restrictions. In addition, those who preferred paper-and-pencil questionnaires did maintain the possibility to print the questionnaire and complete it by hand. This turned out to be an useful strategy to speed and facilitate the entire data collection process.

Some days after the company's formal invitation, I sent a separate e-mail message to participants thanking them for their help and invited them to contact me in case of need in completing the questionnaire or understanding particular questions. I also asked Spanish speakers to let me know if they would prefer to fill out a Spanish version of the questionnaire; in that case, I would readily arranged that version. However, no one of them made such request. In the following weeks, reminders were sent via e-mail by both the human resource managers of the company and me to nonrespondents. At the end, all of them returned me their survey. As previously mentioned, I got back 45 completing surveys, representing the 100 per cent of all the possible surveys I could collect.

Measures

Self-monitoring. I used the revised 18-item true-false version of the Self-Monitoring Scale (Snyder & Gangestad, 1986: 137) to measure self-monitoring. The scale is the shortened version of the original 25-item true-false scale developed by Snyder (1974); as explained in Snyder and Gangestad (1986: 137), the revised version of the scale possesses a higher reliability and is more factorially pure than the originally proposed version. The scale consists of self-descriptive statements designed to enlighten multiple facets constituting the self-monitoring orientation, such as: (1) concern with situational appropriateness of self-presentation (e.g., “At parties and social gatherings, I do not attempt to do or say things that others will like”), (2) ability to control expressive behavior (e.g., “I can look anyone on the eye and tell a lie [if for a right end]”), (3) use of this ability in particular situations (e.g., “I may deceive people by being friendly when I really dislike them”), and (4) situation-to-situation shifts in expressive self-presentation (e.g., “In different situations and with different people, I often act like very different persons”) (Snyder, 1987: 15-16). In the present research, the reliability of the scale as assessed by Cronbach’s (1951) alpha was .79, that is slightly higher than the mean reliability reported in previous studies on self-monitoring based on the same scale ($\alpha = .73$; reviewed in Day et al. 2002: 393). I added a point for each response in the keyed direction and I normalized the score by dividing it by its maximum value. I used this normalized value as the self-monitoring score.

The construct validity of the Self-Monitoring scale has been widely discussed (cf. Snyder & Gangestad, 1986; Gangestad & Snyder, 2000; Day,

Schleicher, Unckless, and Hiller, 2002). Although multiple content domains are represented by the measure, a recent and systematic examination of the literature on self-monitoring's empirical relations with a variety of behavioral and attitudinal criterion variables showed that the Self-Monitoring scale does tap a large general factor (a single personality variable), which explains a substantial amount of the whole variance of the measure and is approximated by the first unrotated factor (Gangestad & Snyder, 2000; see also Snyder & Gangestad, 1986). This latent general factor reflects a conceptually meaningful dimension that is the self-monitoring orientation. This comprehensive examination of the self-monitoring literature reached the conclusion that the propensity for self-monitoring can be conceptualized a unitary phenomenon. This propensity was found to be highly stable over time, as indicated by test-retest studies conducted over periods of one month to 3.5 months using the original 25-item Snyder's scale (reviewed in Snyder, 1987: 17). Moreover, studies on the self-monitoring orientation of monozygotic and dizygotic twins suggest that self-monitoring, as detected by the Self-Monitoring Scale, is likely to have a biological basis (reviewed in Snyder & Gangestad, 1986: 128), providing additional support for the temporal stability of both the instrument (providing stable self-monitoring scores over time) and the concept (self-monitoring as a stable personality trait).

Social network measures. I designed the sociometric part of the questionnaire to assess two different social networks: the trust network and the career support network. I reconstructed the network of trust relations by asking respondents to look down a list of all the people holding a managerial position in any of the European business units of the company and check the names of those to whom they felt they could talk openly about their professional concerns at work. I

solicited answers through the question: “Sometimes we may have concerns about work-related matters and feel that a question needs to be discussed and dealt with for the best interest of the Company. Other times, we may have concerns about our own position in the Company or our own job. Please place a check next to the names of the people with whom you feel you could share your own opinions, concerns or doubts about these kinds of matters, if you had them.”. In phrasing the question, I intentionally avoid using the word “trust” given the high sensitivity of the question; anyway, I tried capturing the open attitude and positive affective-based feeling which characterize a trust relation. To assess the career support network I used the following question : “Sometimes there are people working with us that we feel are especially important for our professional growth. They may be people with whom we share opinions and talk about our professional life. They may tell us about their own experience in doing a job or occupying a position in order to help us to do our best in the Company. They may give us opportunities to show we have valuable skills and abilities, thus supporting our professional development and success. Please place a check next to the names of the people who you feel are contributing more to your personal growth and development and are supporting your career.”. The wording was adapted from a previous work by Ibarra (1995) on managerial networks.

In designing the sociometric part of the questionnaire, I opted for a roster format instead of a free recall format (cf. Wasserman & Faust, 1994: 46). That is, I provided respondents with an alphabetical list of all the people in the sample asking them to check the name of those whom they turned to for advice. This method differs from the free recall as respondent are provided with the full list of those among whom they can choose in response to the question. Since the list help

respondents not to forget people with whom they have a tie, the roster method is preferred when the researcher knows the network membership beforehand and thus can include the list. I also opted for a free choice format instead of a fixed choice design (cf. Wasserman & Faust, 1994: 47). That is, I did not put constraints on the number of people that respondents could indicate in response to the question. This format assures that all the people with whom a respondent has a tie enter the dataset.

I subsequently arranged the network data in two separate 45x45 binary adjacency matrices (one for each relation) through the following procedure: since in each matrix the cell x_{ij} corresponded to the relation between the pair (i,j) , I assigned a value of 1 to cell x_{ij} if i declared to trust j or that j was supporting his career, and value of 0 in the opposite cases. Cells x_{ii} corresponding to relations from an actor to oneself were coded as 0 since, of course, no one could nominate oneself. Each matrix thus contained 1,980 observations on all possible pairs of people. Both matrices were asymmetrical since both relations could be not reciprocated, as when i trusts j but j does not trust i , or when i is supported in his career path by j but j is not supported in his own by i . To calculate the network indexes and centrality measures, I used the network software program UCINET VI version 6.24 (Borgatti, Everett & Freeman, 2002). The density of the trust network was .062, while the density of the career support network was .057. The rate of reciprocity for the trust network was .27, while for the career support network was .23.

To assess the overall level of involvement of each individual in the trust network I computed degree centrality scores (Freeman, 1979). Degree centrality is the total number of relations in which an individual is involved in a network. This

centrality measure is particularly useful to measure involvement in networks of nondirectional relations (relations which do not have a direction as they involve two actors in the same way, such as communication relations), for which distinguishing the relations directed to an actor from the relations originating from the actor is not a theoretical concern (Wasserman & Faust, 1994). Although the trust relations could be asymmetrical, I was not particularly interested in computing incoming and outgoing relations separately. Since I assumed that incoming and outgoing trust relations were equally important and jointly contributed at determining individuals' organizational commitment, I was mainly interested in the overall number of trust ties connecting an individual to others as a measure of his overall involvement in the network – that is, I was not particularly concerned with whether the individual's involvement in the network was due to the receiving (being the recipient) or the sending (being the source) of trust ties. Degree centrality was therefore a suitable measure for my aims. Since degree centrality can be measured only for networks of undirected relations, I symmetrized the adjacency matrix before computing degree centrality scores in the trust network. To symmetrize the matrix I applied the following rule: if either member of a pair declared he trusted the other, I considered the pair as having a tie. This rule assured me that all trust relations (including those not reciprocated) involving an individual were taken into consideration when calculating his overall involvement in the network. Since the application of this rule could affect my results, I also symmetrized the matrix by using the opposite rule that there was a tie between two people only if each declared he trusted the other. Both rules yielded similar patterns of results.

To obtain a measure of the career support *received* by an individual, I computed indegree centrality scores (Freeman, 1979). Indegree centrality is the number of relations directed to an actor, in this case the number of relations providing career support to an individual. In this case, preserving the direction of ties was crucial to assess the extent to which an individual was supported in his own career path. Since indegree centrality usually counts the number of nominations or choices received by an actor in response to a sociometric question, it is considered as an index of the prestige of the actor, that is it measures how much the actor is object (rather than the subject) of ties in the network (Wasserman & Faust, 1994). However, in my case, given the way I asked respondents to report their career support relations and the way in which I codified the data, the measure must be best interpreted as the number of all the reported relations directed to an individual reported by the individual himself. Put in this way, indegree centrality, while retaining the meaning of the total number of relations directed to an individual, could suffer from a self-report bias. However, since I was interested in the individual's perception of being supported in his career by others in the networks (who presumably cared about his professional future within the organization), the measure well suited my particular research aims. I expected, in fact, that the perception of being supported was a stronger predictor of one's organizational commitment than was the objective fact of being or not being actually supported as measured by supporters' declarations. Therefore, although the measure I used could suffer from a self-report bias, it was the best to be used in lights of my research goals.

Organizational commitment. I used Allen and Meyer's (1990) affective commitment scale to assess organizational commitment. The scale was specifically

developed to measure the degree of emotional or affective attachment of individuals to their organizations, which is conceptually and empirically different from other possible types of individuals' commitment to organizations (see Allen & Meyer, 1990 in this regard). Items include: "I do not feel a strong sense of belonging to my organization" (reversed keyed) and "This organization has a great deal of personal meaning for me". The scale is based on a 7-point Likert response format and comprises eight items. The scale is similar, but shorter, to that developed by Porter, Steers, Mowday, and Boulian (1974), with which it correlates at 0.86 (Meyer & Allen, 1984). I used the scale to assess each individual's organizational commitment at two levels: to the whole multinational organization at large, and to the specific business unit of employment. In the present research, the internal consistency reliability of the two scales (the one used to measure organizational commitment to the company as a whole, and the one used to measure organizational commitment to the single unit), as assessed by Cronbach's alpha (1951), was exactly the same for both: $\alpha = .85$. The reliability estimates yielded in this study were in line with those obtained by Allen and Meyer (1984) in two previous studies ($\alpha = .88$, and $\alpha = .84$ as reported by the authors). I used the mean score over the eight items of the scale as each individual's organizational commitment score.

Control variables

I controlled for some variables which could affect the dependent and/or independent variables:

Age. I asked respondents to report their age. I included age in the analyses as it could directly affect both the individual's structural position in the networks and his level of organizational commitment. Younger people may be more motivated and supported in their career than are older people, and more enthusiastic about their work experience and workplace life. This higher motivation, support, and enthusiasm may translate in a higher commitment both to the entire organization and to their specific unit.

Rank. I controlled for rank in all my analyses as it could directly affect both the individual embeddedness in the social networks and the organizational commitment to the organization. High ranking individuals have more opportunities to interact and establish interpersonal bonds with other organizational members than lower ranking individuals. In addition, they are likely to have both greater relevant experience and understanding of the expectations and responsibilities associated to lower job positions and greater influence and power to mobilize resources to foster others' career. Therefore, they are more likely to emerge as mentors and career supporters than being themselves object of mentor and career support relations. There were four hierarchical managerial levels in the company. Using company records, I coded rank as 1 = functional managers (e.g., marketing or sales managers), 2 = business directors or export manager, 3 = member of the Vice President's staff, 4 = Vice President.

Organization tenure. I included tenure in all the analyses as it could have an impact on both the structural positions of individuals in the social networks and their organizational commitment. Individuals who have been working in an organization for a long time are more likely to have formed relations with other organizational members than individuals just hired or working in the organization

for a short time. As a result, high-tenure individuals are more likely to occupy central positions in the social network than low-tenure individuals. This may be especially true for strong relations such as trust relations. I coded organization tenure as the length of time, in months, an individual had been employed by the company.

Unit tenure. Since all individuals in my sample were employed at managerial ranks, there were chances that they had worked for more than one unit of the organization in the past. Therefore, the time of their employment in the company could be remarkably longer than the time of their employment in their current unit. Since managers who had worked for other units of the company were more likely, thanks to their past experiences, to have developed trust and career support relations with members outside their current unit, I measured and controlled for the time each individual had been employed in the organization and in his current unit separately. In particular I coded unit tenure as the length of time, in months, an individual had been employed by his current unit.

RESULTS

Descriptive Statistics

Table 1 presents means, standard deviations, and zero-order correlations among the variables. Respondents' average age at the time of survey completion was 45.98 years (s.d. = 7.27). On average, respondents had been with the company for almost 207 months, corresponding to more than 17 years, but they had been employed in their current unit for just over 82 months, corresponding to less than 7 years.

Although the two measures of tenure were positively and significantly correlated (clearly, those who had been with their unit for a long time had also been with the company for all that time), their correlation was low enough to suggest the existence of a discrepancy between the two. That is, as expected, some respondents had been with their current unit for a length of time inferior to that for which they had been with the company, meaning that they had previously worked for other units. Longer employment in the company was associated (although not significantly) to occupation of high-ranking positions, indicating that respondents who had been promoted to higher ranks were also those who had been employed in company for a longer time. Employment at the unit level was instead negatively (although not significantly) correlated to rank (those employed in their current unit for a shorter time occupied higher ranking positions), suggesting that mobility within the company could play a role in getting promotions.

The pattern of correlations reveals a number of interesting associations between variables in these univariate tests. First, younger managers and individuals with shorter employment at the company tended to have a significantly higher self-monitoring score (coefficients were respectively, $-.39, p < .01$, and $-.31, p < .05$). Second, higher self-monitors tended to have a lower number of trust relations at work ($-.29, p < .10$). Involvement in the trust network was also significantly associated with rank, with individuals employed at higher levels having a higher number of incoming and/or outgoing trust relations ($.62, p < .001$). In addition, individuals with a higher number of trust relations tended to report having a higher number of incoming career support relations ($.39, p < .01$). Finally, younger managers, individuals with longer employment at the company, and individuals supported by a higher number of people in their career tended to be more

committed both to the entire organization (coefficients were respectively, .43, $p < .01$, .38, $p < .05$, and .28, $p < .10$) and to their specific unit (.35, $p < .05$; .27, $p < .10$; .30, $p < .05$). Commitment to the unit was also positively and significantly correlated with the length of employment at the unit itself (.33, $p < .05$). Individuals more committed to their unit were also more committed to the organization as a whole (.68, $p < .001$).

Table 1
Means, Standard Deviations, and Correlations*

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9
11. Age	45.98	7.27									
12. Rank ^a	1.44	.73	.15								
13. Organization tenure ^b	206.69	127.77	.70***	.14							
14. Unit tenure ^c	82.33	80.26	.48***	-.08	.40**						
15. Self-monitoring	.45	.22	-.39**	-.12	-.31*	-.21					
16. Trust degree	4.27	2.96	.13	.62***	.22	.12	-.29 ⁺				
17. Career support indegree	2.49	1.52	.11	.23	.15	-.12	-.17	.39**			
18. Organization commitment	5.78	.73	.43**	-.09	.38*	.13	-.12	.15	.28 ⁺		
19. Unit commitment	5.37	1.08	.35*	.04	.27 ⁺	.33*	-.09	.21	.30*	.68***	

^a coded as 1 = functional manager, 2 = business director or export manager, 3 = member of the Vice President's staff, 4 = Vice President

^b coded as the length of time, in months, that the respondent had been employed in the company

^c coded as the length of time, in months, that the respondent had been employed in the unit

+ p < .10; * p < .05; ** p < .01; *** p < .001

*N=45

Self-monitoring and Trust Relations at Work

I used a hierarchical regression analysis based on OLS (ordinary least squares) regression equations to examine the effects of self-monitoring on structural positions in the trust network (Hypothesis 1). I included age, rank, organization tenure, and unit tenure as control variables at the first step. At the second step, I entered self-monitoring.

Table 2 presents the results of the regression analysis examining the effects of self-monitoring on occupying central positions in the trust network at work. The results revealed that (controlling for age, rank, organization tenure, and unit tenure) self-monitoring was negatively and significantly associated with degree centrality in the trust network ($\beta = -3.00, p < .10$). The inclusion of self-monitoring in the regression equation helped explain an additional 4 percent of the variance over the baseline model. Thus I found support for Hypothesis 1, stating that higher self-monitoring is associated with less incoming and/or outgoing trust ties. That is, given the way I defined and measured degree centrality in the network, higher self-monitors were seen by less people as worth trust and/or reported trusting less people among their coworkers.

Table 2
Results of Regression Analyses Predicting Degree Centrality in the Trust Network (N=45)

Variable	Trust degree	
	Model 1	Model 2
Age	-.08	-.11
Rank	2.61***	2.55***
Organization tenure	.00	.00
Unit tenure	.01	.00
Self-monitoring		-3.00 ⁺
Model F	7.82***	7.26***
ΔF		3.25 ⁺
R ²	.44	.48
ΔR^2		.04
Adjusted R ²	.38	.42

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

Trust and Career Support Relations at Work and Organizational Commitment

I used hierarchical regressions to examine the effects of centrality in the trust network and in the career support network on individuals' organizational commitment (Hypotheses 2 and 3). I used two separate hierarchical regression analyses to assess the effects on commitment to the whole organization and to the specific unit. That is, I tested Hypotheses 1 and 2 at two levels (at the company level and the unit level) by two subsequent and separate regression analyses. In both analyses, I included self-monitoring to verify a potential mediating effect of the variable on organizational commitment via the effects on centrality in the trust

network, as suggested by the combination of Hypotheses 1 and 2. Mediation between self-monitoring and organizational commitment through trust relations would be supported if a significant relationship between the two variables would be eliminated or significantly reduced after controlling for the effects of centrality in the trust network (Baron & Kenny, 1986). In each analysis, I entered control variables (age, rank, organization tenure, and unit tenure) on the first step, self-monitoring on the second step, and centrality in the trust network on the third step. Finally I entered indegree centrality in the career support network as a fourth step to assess the effects of this kind of support on organizational commitment.

Table 3 presents the results of the hierarchical regression with commitment to the multinational organization at large as a dependent variable. Results presented in model 3 of the table show that, controlling for age, rank, organizational tenure, and unit tenure, a higher degree centrality in the trust network was associated with a higher commitment to the whole organization ($\beta = .08, p < .10$). Hypothesis 2 was therefore supported. Moreover, results of model 5 show that prominence in the career support network (being supported in one's career) had a positive and significant effect on organizational commitment. Hypothesis 5 was therefore also supported. Entering the variables concerning structural positions in the trust and career support networks did lead to a significant improvement of model 3 and model 5 over model 2. Results presented in model 6 show that, when included simultaneously in the regression equation, centrality variables stopped being significant; however, the overall model fit explained significantly more variance on organizational commitment than each of the previous models.

Table 3
Results of Regression Analyses Predicting Organizational Commitment (N=45)

Independent variable	Organization Commitment					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
20. Age	.04 ⁺	.04 ⁺	.05*	.05*	.04 ⁺	.05*
21. Rank	-.19	-.18	-.40*	-.42*	-.23	-.40*
22. Organization tenure	.00	.00	.00	.00	.00	.00
23. Unit tenure	.00	.00	.00	.00	.00	.00
24. Self-monitoring		.14		.42	.26	.45
25. Trust degree			.08 ⁺	.09*		.07
26. Career support indegree					.13 ⁺	.10
Model F	3.12*	2.46*	3.36*	2.90*	2.79*	2.79*
ΔF		.08	3.52 ⁺ (1)	.72	3.64 ⁺	2.99 ⁺
R ²	.24	.24	.30	.31	.31	.35
ΔR ²		.00	.06 (1)	.01	.07 (2)	.11 (2)
Adjusted R ²	.16	.14	.21	.21	.20	.22

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients; (1) compared to Model 1, (2) compared to Model 2.

Table 4 presents the results of the hierarchical regression with commitment to the specific unit as a dependent variable. As shown by model 3 of the table, degree centrality in the managerial trust network did not predict organizational commitment to the specific local unit of employment ($\beta = .09, n.s.$). Instead, results presented in model 5 confirms the positive and significant effect of indegree centrality in the career support network on organizational commitment ($\beta = .24, p < .05$): individuals having more relations supporting their career felt more attached to their specific unit. Hypothesis 3 was therefore supported in this case too. In model 5 career support indegree alone explained an additional 11 percent of the variance in unit commitment over the baseline model 2, and retained its significance also in model 6 controlling for structural positions in both networks (trust and career support).

As for the mediating effect of self-monitoring on organizational commitment (cf., Hypotheses 1 and 2), any of the previous analyses (c.f., Tables 3 and 4) did not support such an effect. Controlling for age, rank, organization tenure, and unit tenure, self-monitoring did not have any direct significant effect on commitment to the whole organization or the single unit; being absent, the effect could not be mediated (i.e., absorbed or significantly reduced) by a third variable. However, partial support for a mediation model was found, as demonstrated in separate analyses on the effects of self-monitoring on trust relations and on the effects of such relations on organizational commitment: I found that self-monitoring affected the degree of overall involvement in the trust network, and that this involvement, in turn, affected organizational commitment (to the whole organization).

Table 4
Results of Regression Analyses Predicting Organizational Commitment (N=45)

Independent variable	Unit Commitment					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
27. Age	.04	.04	.04	.05	.04	.04
28. Rank	.03	.03	-.20	-.23	-.06	-.18
29. Organization tenure	.00	.00	.00	.00	.00	.00
30. Unit tenure	.00	.00	.00	.00	.004 ⁺	.00
31. Self-monitoring		.28		.58	.50	.63
32. Trust degree			.09	.10		.05
33. Career support indegree					.24*	.22 ⁺
Model F	1.89	1.51	1.84	1.60	2.29 ⁺	2.01 ⁺
ΔF		.13	1.52 (1)	.53	5.36*	2.89 ⁺
R ²	.16	.16	.19	.20	.27	.28
ΔR ²		.00	.03 (1)	.01	.11 (2)	.12 (2)
Adjusted R ²	.06	.05	.09	.08	.15	.14

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients; (1) compared to Model 1, (2) compared to Model 2.

To summarize, managers having more trust relations with other managers of the company were found to be significantly more committed to the organization, but not significantly more committed to their specific unit, than managers having a lower number of such relations. Moreover, managers reporting a higher number of incoming career relations were significantly more committed to both the company and to their specific unit than managers not receiving such a support.

Additional analysis

Results presented in Tables 3 provided a preliminary support for the existence of a direct relationship between the two observed centrality measures: degree in trust network and indegree in the career support network. When included simultaneously in model 6 of the table, the two network variables stopped having significant effects on organizational commitment, indicating a possible association between them. In particular, given the substantial meaning of the two types of relations, centrality in the trust support network could be predictive of a higher indegree centrality in career support network, that is individuals having trust relations with a higher number of coworkers could be in a more advantageous position for obtaining others' support. To assess if centrality in the trust network could help explain differentials in indegree centrality in the career support network, I performed an additional hierarchical regression analysis. I entered control variables on the first step, self-monitoring on the second step, and indegree in the trust network on the third step. Finally, I estimated a full model including all the previous variables. This process allowed me to assess whether the occupation of central position in the trust network affected indegree in the career support network

while controlling for all the other variables. Moreover, given the negative effect of self-monitoring on centrality in the trust network, as assessed in model 2 of Table 2, including self-monitoring in the regression equation allowed me also to verify the existence of a mediating effect of self-monitoring on indegree centrality in the career support network via the effects on trust relations.

Table 5 presents results of the hierarchical regression analysis with prominence in the career support network as a dependent variable. As shown by model 4 of the table, controlling for all the other variables including self-monitoring, a higher number of trust relations was predictive of a higher number of incoming career support relations ($\beta = .22, p < .10$). In this case too, I did not find support for a mediating effect of self-monitoring via structural effects; however, as before, partial support for such an effect was found in separate analyses: Self-monitoring negatively impacted on the number of an individuals' trust relations at work, and that, in turn, positively impacted on the number of an individual's incoming career support relations.

Table 5
Results of Regression Analyses Predicting Indegree Centrality in the Career Support Network (N=45)

Independent variable	Model			
	1	2	3	4
34. Age	.01	.00	.03	.03
35. Rank	.39	.37	-.21	-.20
36. Organization tenure	.00	.00	.00	.00
37. Unit tenure	.00	.00	-.01 ⁺	-.01
38. Self-monitoring		-.90		-.23
39. Trust degree			.23*	.22 ⁺
Model F	1.10	1.00	2.09 ⁺	1.71
ΔF		.65	5.55*	.04
R ²	.10	.11	.21	.21
ΔR ²		.01	.11	.00
Adjusted R ²	.01	.00	.11	.09

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

ΔF and ΔR² report changes from the previous model, except for model 3, which report changes from model 1 to model 3

DISCUSSION

A common finding on literature on self-monitoring and organizational commitment has been that high self-monitors are less committed to their organization than low self-monitors (Day et al., 2002). A possible, sound explanation for this negative relationship resides in the differences in interpersonal orientation between high and low self-monitors: High self-monitors invest less emotional commitment in their relations and seem to manage their interactions mainly on the basis of the advantages they can get from them. By contrast, low self-monitors have a more principled and emotion-driven orientation to others and tend to form closer emotional and affective bonds with their partners. Being more flexible in their relations and generally less attached to their partners, high self-monitors may find themselves less emotionally involved with their organization, whereas low self-monitors may find it natural feeling attached to their organization in the long run. Although consistent with the self-monitoring theory, this interpretation has remained largely unexplored.

This paper has tempted to provide an early evidence supporting a social network-based interpretation of the negative impact of self-monitoring on organizational commitment. In particular, I examined the effects of self-monitoring on the occupation of central positions in the network of trust relations at work, and the effects of these positions on individuals' commitment to their organization. By doing so, I aimed at verifying whether self-monitoring could affect organizational commitment by affecting individual involvement in a social network with an affect-based meaning. Also, I analyzed the effect of prominence in the network of career support relations on organizational commitment. I found that, accordingly to

what suggested by the psychological literature on high and low self-monitors' interpersonal styles, high self-monitors were less likely to get involved in the trust network in the workplace (i.e., they reported to trust less people and/or to be trusted by less people). A lower level of involvement in this network, in turn, was associated with a lower level of commitment to the entire organization. Further, prominence in the network of career support relations (having more relations supporting one's career) was positively related to organizational commitment at two levels: to the organization as a whole and to the specific unit of employment. I controlled for age, rank, organization tenure, and unit tenure in all analyses.

As expected, self-monitoring was negatively related with degree centrality in the trust network. High self-monitors were less likely to form close bonds of trust with other member of their organization (i.e., they nominated less coworkers as persons with whom they would express their thoughts about delicate work-related matters, and were nominated in turn by less coworkers in response to the same question). By contrast, low self-monitors were more inclined to develop such relations with coworkers (i.e., they reported feeling free to confide their work-related problems and anxieties to more people, and more people reported doing the same with them). Since I focused on a relatively strong relation (i.e., trust), this finding is in line with what predicted by the literature on high and low self-monitors' interpersonal orientation. With respect to relations of other nature, whose strength can vary, high self-monitors may tend to develop larger personal networks made up of relatively weaker relations, whereas low self-monitors may tend to develop smaller personal networks made up of relatively stronger relations. This reasoning helps explain my findings in the light of other apparently contrasting findings obtained in previous studies. For example, Mehra, Kilduff, and Brass

(2001) found that self-monitoring was positively related to degree centrality in the friendship network at work, that is high self-monitors tended to have more friends than low self-monitors. However, high and low self-monitors do seem have remarkably different conceptions of friendship, as suggested by studies on how they choose their partners for social activities (Snyder et al., 1983). Snyder and Smith (1984) elicited high and low self-monitors' conceptions of friendship by asking them to write an essay describing a relationship with a person they considered to be a friend. Snyder (1987: 68) reported these major differences between high and low self-monitors' essays: "High self-monitoring essay writers conceptualized friendship in terms of an *activity-based* orientation, and animated and emphatic tone to the interactions, a somewhat shallow sense of friendship, little conception of compatibility beyond the present context, and little conception of nurturance. Low self-monitoring essay writers conceptualized friendship in terms of an *affect-based* orientation, a definite sense of depths of friendship, considerable conception of compatibility and endurance beyond the present context, and much evidence of a conception of nurturance and sympathy within friendship." [emphases of the author]. Low self-monitors are therefore likely to have more friends when friendships is defined stressing the affect-intensive meaning of the relation; put it differently, they are likely to have more *strong* friends. Instead, when friendship is measured in terms of activities shared with others (friend as someone with whom one does this or that), high self-monitors are likely to have more friends than low self-monitors. Indeed, Mehra et al. (2001) used an activity-based question to operationalized friendship relations in their study. Their findings are therefore consistent with the present reasoning. The self-monitoring theory offers other interesting, so far unexplored, implications about the social networks

of high and low self-monitors. For example, low self-monitors' tendency to choose partners who are similar to themselves and to engage with them in most of their activities, may facilitate contacts among their partners and therefore increase the density of their personal networks. This line of reasoning depicts low self-monitors as people having small, strong and dense personal networks, as opposed to the larger, weaker and less dense networks of high self-monitors. Future research could further explore these issues by investigating the link between self-monitoring and the size, strength and density of individuals' personal networks. Another promising and related avenue for future research might be proving parallels between how high and low self-monitors manage social relations in their private life (e.g., how they choose friends out of work) and how they manage them in the workplace (e.g., how they choose friends in the workplace).

As for the effects of trust relations on organizational commitment, I found that degree centrality in the trust network predicted commitment to the organization as a whole but not to the single unit in which the individual was employed. This was probably due to the composition of my sample. In designing my research, I specifically focused on relations connection managers of a large multinational company. The need to make the survey manageable while observing ties cutting across intraorganizational boundaries, constrained me to use this attribute-based criteria to bound the network. However, this strategy clearly prevented me from observing other trust relations with a potential effect on organizational commitment: namely, all the relations existing among the full staff of each single unit of the company. Therefore, while organizational commitment to the whole company was likely to depend on the social relations that each individual had developed outside his own unit, organizational commitment at the unit level

was probably a function of the relations connecting people inside each unit. Not having observed these relations is therefore the most probable reason for my contrasting results. If this interpretation is correct, it suggests that the number of trust relations an individual have at work does have a positive impact on his or her commitment at both organizational levels. Future research conducted at multiple levels of analyses in multiunit organizations is needed to better test this hypothesis.

Contrary to some previous work on self-monitoring and organizational commitment, my findings do not support the existence of a direct relationship between self-monitoring and commitment. However, in separate analyses I demonstrated a possible indirect effect of self-monitoring on organizational commitment through the effects exercised by this predisposition on individual involvement in the trust network. Future research directly relating self-monitoring to interpersonal relations in the workplace, and these relations to commitment, is needed to further clarify the underlying mechanisms responsible for the negative effects of self-monitoring on individuals' commitment to organizations.

Concerning the effects of social relations on organizational commitment, Krackhardt and Porter (1985) found that the departure from an organization of a close employee reinforced, rather than diminished, the commitment of those who remained in the organization. They explained their finding arguing that the remaining employees voluntarily increased their attachment to the organization to cognitively justify their decision to stay with the organization. This argument seems to detract from the importance of positive social relations as antecedents of organizational commitment as it implies that commitment increases when a strong positive relation stops existing in the workplace (although it may continue elsewhere), rather than starting existing. Future research could clarify this point.

As predicted, a higher indegree centrality in the career support network was predictive of a higher organizational commitment. This positive relationship was confirmed for both levels of commitment: to the whole organization as well as to the single unit. This finding further confirms the validity of my interpretation concerning the impact of the composition of my sample on my results. In this case, in fact, the sample was probably best composed to assess the impact of career support relations to organizational commitment, as proved by the confirmation of the hypothesis at the company and unit levels. Indeed, career support relations require power and access to resources which are generally only available to people holding high-ranking positions, as the participants in my survey were. Therefore, in this case, having focused on managerial networks probably helped me find confirming results.

A finding that was not predicted but that emerged was the positive relationship between degree centrality in the trust network and indegree centrality in the career support network. That is, having trust ties at work seems to help an individual create a supportive climate around himself with potential advantages for his career. This finding is particularly interesting in the light of the other results of this study. It may in fact represent a point in favor of low self-monitoring individuals in the race for success: If, as suggested by this study, low self-monitors are more likely to occupy central positions in the trust network at work, they should benefit from this condition by receiving more support for their career. However, so far, the evidence supports a positive, rather than a negative, relationship between self-monitoring and the ability to get managerial promotions (Kilduff & Day, 1994). On the basis of the current study, it is not clear whether self-monitors' tendency to get more involved in the trust and career support

networks may count more or less than high self-monitors ability to impress others in terms of prospective promotions. Future research could shed new light on these questions, in particular clarify if low self-monitors' affect-based expressive ties may be enough to counterbalance and compete with high self-monitors' impression management abilities.

Limitations

A limitation of this study is the problem of casual ordering generated by its cross-sectional design. Since I collected the data on a single point in time, I can not exclude the existence of reversed causal relationships between variables. For example, in addition to trust relations influencing individuals' commitment to the organization, it is possible that a higher commitment motivates individuals to get more involved in the trust network. Moreover, while individuals who are supported in the career path may feel grateful to their organization and increase their commitment, individuals who are committed to their organization may be rewarded by their superiors through opportunities to advance in their career. These examples clarify the common recommendation to adopt longitudinal research designs whenever it is possible for the researcher.

Another limitation derives from the fact that the data for the present research were collected in one organization; therefore, the generalizability of the results to other settings may be limited. I collected the data in a large multinational company whose management team was located over ten European countries. Probably, the fact that the managers I surveyed were physically distant one from another affected the configuration of the social networks I observed, making more

likely the emergence of trust and career support ties between closer people than between distant people.

Even more important, my focus on managerial relations implies that I neglected observing the interpersonal ties connecting the managers in my sample to employees at lower hierarchical levels. Therefore, the social networks I reconstructed represented just a small fraction of all the interpersonal relations involving my respondents. Unfortunately this limit is inherent in all the network studies conducted in large organizations whose inner networks are too large to be observed (especially when the data are to be collected through questionnaires or interviews) and/or the researcher is not allowed to survey all the actors. In my case, this represented a limit more for the assessment of the trust network than for the assessment of the incoming career support relations: since people are generally supported in the career by people working at higher hierarchical levels, there were good chances that I observed all the career support relations directed to each individual.

CONCLUSION

In summary, this study enlightened differences between high and low self-monitoring individuals in getting involved in the trust network at work, and the effects of these individual differences on organizational commitment. Also, the study examined the effects of the occupation of prominent positions in the career support network on organizational commitment. I argued that low self-monitors are more likely to form trust ties at work and that these ties, in turn, are likely to be associated to higher levels of organizational commitment. Moreover, individuals

who are supported in their career are more likely to develop a feeling of belonging and attachment to their organization, probably as a form of attitudinal reward for being appreciated as workers and helped in moving up the career ladder. In addition, individuals who occupy more central positions in the trust network tend to receive a higher career support. The overall pattern of results paints a picture in which hiring low self-monitors may imply for organizations having, in the long run, more cohesive and dense interpersonal and intraorganizational network of trust relations, and prospective more committed employees. The actual importance that organizations assigned to these elements, as well as the effects exercised by these elements on individuals' careers, in comparison to others usually associated with high self-monitors, such as boundary spanning, impression management, and leadership, remain to be explored.

REFERENCES

- Allen, N. J., & Meyer, J. P. 1990. The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, 63: 1-18.
- Baron, R. M., & Kenny, D. A. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173-1182.
- Bauer, T. N., Morrison, E. W., & Callister, R. R. 1998. Organizational socialization: A review and directions for future research. In G. R. Ferris (Ed.), *Research in personnel and human resource management*, 16: 149-214. Greenwich, CT: JAI Press.
- Berlew, D. E. 1991. Multiple mentor model: A conceptual frame work. *Journal of Career Development*, 17: 213-221.
- Borgatti, S. P., Everett, M. G., & Freeman, L. C. 2002. *UCINET for Windows: Software for Social Network Analysis*. Harvard: Analytic Technologies.
- Brass, D. J. 1985. Men's and women's networks: A study of interaction patterns and influence in an organization. *Academy of Management Journal*, 28: 327-343.
- Burt, R. S. 1992. *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Caldwell, D. F., O'Reilly III, C. A. 1982. Boundary spanning and individual performance: The impact of self-monitoring. *Journal of Applied Psychology*, 67 (1): 124-127.
- Chao, G. T., Walz, P. M., & Gardner, P. D. 1992. Formal and informal mentorships: A comparison on mentoring functions and contrast with nonmentored counterparts. *Personnel Psychology*, 45: 619-636.

- Chung, S. A., Singh, H., & Lee, K. 2000. Complementary, status similarity, and social capital as drivers of alliance formation. *Strategic Management Journal*, 21: 1-22.
- Cohen, S., Doyle, W. J., Skoner, D. P., Rabin, B.S., Gwaltney, J. M. 1997. Social ties and susceptibility to the common cold. *Journal of the American Medical Association*: 1940-1944.
- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, 16: 297-334.
- Day, D. V., D. J. Schleicher, A. L. Unckless, & N. J. Hiller. 2002. Self-monitoring personality at work: A meta-analytic investigation of construct validity. *Journal of Applied Psychology*, 87, 2: 390-401.
- Dobbins, G. H., Long, W. S., & Dedrick, E. J. 1990. The role of self-monitoring and gender on leader emergence: A laboratory and field study. *Journal of Management*, 16 (3): 609-618.
- Eisenberg, E. M., Monge, P. R., & Miller, K. I. 1984. Involvement in communication networks as a predictor of organizational commitment. *Human Communication Research*, 10: 179-201.
- Freeman, L. C. 1979. Centrality in social networks: Conceptual clarification. *Social Networks*, 1: 215-239.
- Gangestad, S. W., & Snyder, M. 2000. Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin*, 126: 530-555.
- Gulati, R. 1995. Familiarity breeds trust? The implications of repeated ties on contractual choice in alliances. *Academy of Management Journal*, 38: 85-112.
- House, J. S. 1981. *Work, stress, and social support*. Reading, MA: Addison-Wesley.
- Ibarra, H. 1995. Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal*, 38: 673-703.

- Ickes, W. J., & Barnes, R. D. 1977. The role of sex and self-monitoring in unstructured dyadic interactions. *Journal of Personality and Social Psychology*, 35: 315-330.
- Jablin, F. M., & Krone, K. J. 1987. Organizational assimilation. In C. Berger & S. H. Chaffee (Eds.), *Handbook of communication science* (pp. 711-746). Newbury Park, CA: Sage.
- Jenkins, J. M. 1993. Self-monitoring and turnover: The impact of personality on intent to leave. *Journal of Organizational Behavior*, 14: 83-91.
- Kilduff, M., Day, D. V. 1994. Do chameleons get ahead? The effects of self-monitoring on managerial careers. *Academy of Management Journal*, 37: 1047-1060.
- Koeske, G. F., & Koeske, R. D. 1993. A preliminary test of a stress-strain-outcome model for reconceptualizing the burnout phenomenon. *Journal of Social Service Research*, 17: 107-135.
- Krackhardt, D. 1992. The strength of strong ties: The importance of Philos. In N. Nohria & R. Eccles (Eds.), *Networks and organizations: Structure, form, and action*. Boston: Harvard Business School Press, pp. 216-239.
- Krackhardt, D., & Porter, L. W. 1986. When friends leave: A structural analysis of the relationship between turnover and stayers' attitudes. *Administrative Science Quarterly*, 30: 242-261.
- Kram, K. E. 1985. *Mentoring at work: Developmental relationships in organizational life*. Glenview, IL: Scott, Foresman.
- Kram, K. E. 1986. Mentoring in the workplace. In D. T. Hall (Ed.), *Career development in organizations*: 160-201. San Francisco: Jossey-Bass.
- Kram, K. E., & Isabella, L. A. 1985. Alternatives to mentoring: The role of peer relationships in career development. *Academy of Management Journal*, 28: 110-132.

- Lee, R. T., & Ashforth, B. E. 1993. A longitudinal study of burnout among supervisors and managers: Comparisons between the Leiter and Maslach (1988) and Golembiewski et al. (1986) models. *Organizational Behavior and Human Decision Processes*, 54: 369-398.
- Leone, C. 2006. Self-monitoring: Individual differences in orientations to the social words. *Journal of Personality*, 74 (3): 633-657.
- Lin, N. 2001. Building a network theory of social capital. In N. Lin, K. Cook, & R. S. Burt (Eds.), *Social capital: Theory and Research*: 3-29. New York: Aldine de Gruyter.
- Mehra, A., Kilduff, M., & Brass, D. J. 2001. The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly*, 46: 121-146.
- Mehra, A., Leonard, A. S., & Katerberg, R. 2003. *Self-monitoring and social network in academia: The social capital of minority doctoral students*. Paper presented at the Academy of Management Annual Meeting, Seattle, WA.
- Mehra, A., & Schenkel, M. T. 2008. The price chameleons pay: Self-monitoring, boundary spanning and role conflict in the workplace. *British Journal of Management*, 19: 138-144.
- Meyer, J. P., & Allen, N. J. 1984. Testing the “side-bet theory” of organizational commitment: Some methodological considerations. *Journal of Applied Psychology*, 69: 372-378.
- Morrison, E. W. 1993. Longitudinal study of the effects of information seeking on newcomer socialization. *Journal of Applied Psychology*, 78: 173-183.
- Morrison, E. W. 2002. Newcomers’ relationships: The role of social network ties during socialization. *Academy of Management Journal*, 45: 1149–1160.

- Murray, M. 1991. *Beyond the myths and magic of mentoring: How to facilitate an effective mentoring program*. San Francisco: Jossey-Bass.
- Porter, L. W., Steers, R. M., Mowday, R. T., and Boulian, P. V. 1974. Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59: 603-609.
- Ragins, B. R., & Cotton, J. 1998. Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. Paper to be presented at the National Academy of Management Meeting, San Diego, CA.
- Reichers, A. E. 1987. An interactionist perspective on newcomer socialization rates. *Academy of Management Review*, 12: 278-287.
- Roberts, K. H., & O'Reilly, C. A., III. 1979. Some correlates of communication roles in organizations. *Academy of Management Journal*, 22: 42-57.
- Shaffer, D. R., Smith, J. E., & Tomarelli, M. 1982. Self-monitoring as a determinant of self-disclosure reciprocity during the acquaintance process. *Journal of Personality and Social Psychology*, 43: 163-175.
- Sherman, J. D., Smith, H. L., Mansfield, E. R. 1986. The impact of emergent network structure on organizational socialization. *Journal of Applied Behavioral Science*, 22: 53-63.
- Snyder, M. 1974. Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30: 526-537.
- Snyder, M. 1987. *Public appearances, private realities: The psychology of self-monitoring*. New York: W. H. Freeman.
- Snyder, M., Berscheid, E., & Glick, P. 1985. Focusing on the exterior and the interior: Two investigations of the initiation of the personal relationships. *Journal of Personality and Social Psychology*, 48: 1427-1439.

- Snyder, M., & Gangestad, S. 1986. On the nature of self-monitoring: Matters of assessment, matters of validity. *Journal of Personality and Social Psychology*, 51: 125-139.
- Snyder, M., Gangestad, S., & Simpson, J. A. 1983. Choosing friends as activity partners: The role of self-monitoring. *Journal of Personality and Social Psychology*, 45: 1061-1072.
- Snyder, M., & Simpson, J. A. 1984. Self-monitoring and dating relationships. *Journal of Personality and Social Psychology*, 47: 1281-1291.
- Snyder, M., & Smith, D. 1984. *Self-monitoring and conceptions of friendship*. Paper presented at the annual meetings of the Midwestern Psychological Association, Chicago.
- Snyder, M., & Simpson, J. A., & Gangestad, S. 1986. Personality and sexual relations. *Journal of Personality and Social Psychology*, 51: 181-190.
- Turnley, W. H., & Bolino, M. C. 2001. Achieving desired images while avoiding undesired images: Exploring the role of self-monitoring in impression management. *Journal of Applied Psychology*, 86: 351-360.
- Wasserman, S., & Faust, K. 1994. *Social Network Analysis: Methods and Applications*. Cambridge University Press.

CHAPTER 3

**HOW FAR OUR NETWORK PERCEPTIONS ARE FROM REALITY:
THE ROLE OF STRUCTURAL POSITIONS AND SELF-MONITORING**

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ABSTRACT

Cognition of social networks is an extremely young field of study in the broader area of social network research. The few studies conducted so far on this topic have shown that accuracy in social network perception (perceiving the structure of social relations in the social environment) play an important role in explaining social and organizational behavior, and that accuracy in network perception can be enhanced by occupying more central positions in the social group. In addition, accuracy was found to be affected by some motivational traits, that are presumably out of individuals' control. This study adds to research on the antecedents of accuracy in social network perception by verifying the impact of individuals' centrality in the advice and friendship networks at work on their ability to accurately perceive the overall structure of the two networks. Also, the study analyzes the effects, on accuracy, exercised by a personality trait (i.e., self-monitoring) which implies an acute sensitivity to the social context and to individual behavior. The results indicate that the position that an individual occupies in the informal structure of the network is the only determinant of his or her degree of accuracy in perceiving the network itself.

INTRODUCTION

This study is based on the premise that individuals differ in the extent to which they accurately perceive the social networks in which they are embedded. Some people have a clear mental picture of the social relationships existing among people in their surroundings, while others are more confused about the way others are connected one to another. Research on the cognition of networks represents the area of social network research that aims at identifying the determinants as well as the consequence of individuals' differences in accuracy in the perception of social networks.

This area of research grew apart from a methodological concern about individuals' incapacity to accurately recall their social interactions, originally raised by Bernard, Killworth, and Sailer (e.g., Bernard and Killworth, 1977; Bernard, Killworth, and Sailer, 1980; Bernard, Killworth, and Sailer, 1982; Killworth and Bernard, 1976; Killworth and Bernard, 1979). In their famous, wide series of studies, these scholars demonstrated that individuals are extremely inaccurate, and therefore unreliable, when they report their relationships with other people. They reached the pessimistic conclusion that relying on individuals' self reports for measuring informal network structures would lead to erroneous and unreliable findings. Later evidence has in part mitigated this view. Some network scholars provided new, more optimistic, interpretations of the data collected by Bernard and colleagues proving that individuals tend to recall stable patterns of interactions instead of single, specific interactions occurring at precise points in time (Freeman and Romney, 1986). Individuals' recollections are therefore

inaccurate since they represent relational tendencies more than snapshots of the social networks existing at the precise time of the data collection.

While reassuring network researchers about the validity of their traditional, widely used sociometric techniques, these studies and the related debate had the effect of shifting the focus of attention from the issue of inaccuracy in perception as a methodological problem to the issue of inaccuracy in social network perception as a substantive theoretical topic per se (Krackhardt, 1987). Researchers started emphasizing the importance of accuracy in perceiving social networks not as a requirement for collecting accurate network data, rather as a cognitive condition with important implications and consequences for individuals' life. The basic idea behind this emerging stream of research was that people's mental pictures of the informal structure of relations in their social context were as much important as the actual structure of those relations. This idea is based on a straightforward argument. To get something an individual needs not only a channel through which that thing (e.g., information, advice, support, practical help) can flow (i.e., a relationship), but also a mental map that tell him or her where to search for and find it – which people to approach as they have what he or she is looking for or are directly connected to others who have that. In other words, cognitive representations of social networks are like road maps that individuals use to orient themselves in the complicate web of interpersonal relations and find the shortest routes to access the resources they need. In line with this theoretical argument, an individual's ability to accurately perceive the structure of the work-related advice network existing in his or her organization was found to be an important source of power: individuals with more accurate mental representation of the advice network were rated as more powerful by others in the organization (Krackhardt, 1990).

Moreover, Krackhardt (1992) identified in the poor understanding of the social network the main cause of the failure of an unionization attempt. Accuracy in network perception was also found to be positively relate to effective management (Krackhardt & Hanson, 1993) and managerial performance (Morris, 1996).

These studies demonstrated the importance played by cognitive accuracy in explaining important individual outcomes, thereby opening the way for subsequent studies on the antecedents of accurate network perceptions (Bondonio, 1998; Casciaro, 1998; Casciaro, Carley, & Krackhardt, 1999; Krackhardt, 1987, 1990; Simpson & Borch, 2005). Bondonio (1998) and Krackhardt (1990) conducted their studies in the same small entrepreneurial firm, Krackhardt (1987) collected data on another small entrepreneurial firm, Casciaro (1998) and Casciaro et al. (1999) investigated social network cognitions of the administrative and research staff of three research centers of an Italian University, and Simpson and Borch (2005) conducted a laboratory study with undergraduate students. Casciaro (1998) and Krackhardt (1990) found a negative relationship between rank and accuracy in the perception of the advice and friendship network. Despite the expected advantages connected to the occupation of high-ranking positions on the perception of the advice network, people employed at higher levels of rank had poorer perceptions of this type of network. Building on Krackhardt's (1990) finding that accuracy in the perception of the advice network lead to power, Casciaro (1998) interpreted this finding as a consequence of the fact that higher-level employees did not need to acquire additional power within their organization and therefore were less interested in having an accurate perception of the advice network. Bondonio (1998) and Casciaro (1998) also found that degree centrality in the advice network and degree centrality in the friendship network were positively associated to accuracy

in the perception of the advice network and the friendship network respectively. Krackhardt (1987) found that those occupying higher-betweenness positions in the advice network were more accurate in perceiving the actual network as emerging from the consensus of each dyad involved. This study clearly demonstrated that the results one could get by analyzing cognitive social network datasets crucially depends on the method used to reconstruct the actual social network on the basis of the cognitive maps reported by each single member of the network under investigation. Bondonio (1998) also showed that accuracy in perceiving dyadic links (rather than overall networks) involving the perceiver but reported by another actor was higher when the perceiver was more similar in terms of age and tenure to his or her counterpart in the dyad. That is, individuals have better perceptions of their incoming ties when these ties originate from and are reported by others in the network who have similar age and tenure. Using experimental networks and negotiation tasks, Simpson & Borch (2005) found that the relationship between power and cognitive accuracy was mediated by the distance between the perceiver and the ties to be perceived: when the distance increased, low-power actors (those unable to turn negotiations of valued resources on their favor) had more accurate tie perceptions than high-power actors (those able to gain most of the resources object of a negotiation).

Besides depending on the individual position in the formal (i.e., rank) and informal network structure, accuracy in network perception was also found to depend on some personality traits. This specific line of research recognizes that the way in which people perceive the social relations which surround them depends not only on contextual factors (such as the position an individual occupies in a network relatively to others, and his or her level of rank) but also on motivational traits

potentially insensitive to contextual factors. Put it differently, some individuals are more sensitive by nature to their surroundings and hence better at tracking the informal social relationships which connect people in their social group. Casciaro (1998) found that need for achievement (need to strive for success or accomplish difficult tasks) positively predicted accuracy in perceiving both the friendship and the advice networks, and that another motivational trait, need for affiliation, predicted accuracy only in the perception of the friendship network. In another study, Casciaro et al. (1999) found that positive affectivity enhanced individuals' perception of the overall patterns of relationships in the social context but hampered the accuracy in perception of their own direct social connections. In particular, enthusiastic people with a positive outlook on life had more accurate perceptions of the friendship network but also more inaccurate perceptions of their own personal advice ties (as reported by their counterparts).

Taken together, all these studies clearly demonstrated, on one side, the importance of cognitive accuracy in predicting various organizational outcomes, on the other, the importance of structural positions and personality in affecting the degree of accuracy in perceiving network ties. However, the amount of research conducted on these topics is extremely scarce in comparison to the research conducted on the antecedents and consequences of actual network structures. Although well-grounded in theory, the findings emerged so far urgently need to be confirmed in other studies on network cognitions. Furthermore, research in a higher number of more diverse empirical settings is needed to verify the actual generalizability of these results to other settings and social groups.

The present study aims at contributing to this area of research by analyzing the effects of the occupation of central positions in the social network and the

effects of a specific personality trait, self-monitoring, on accuracy in the perception of the social network. Following previous work (Casciaro, 1998), this paper simultaneously analyzes the effects of structural positions and personality on cognitive accuracy. Centrality in the social network is conceptualized and measured in terms of both incoming and outgoing social ties. I hypothesize that an individual's accuracy in perceiving the advice network at work is positively affected by the number of his or her incoming advice ties, as well as by the number of his or her outgoing advice ties. However, I hypothesize that accuracy in the perception of the friendship network is positively affected only by the number of incoming friendship ties. I also hypothesize that accuracy in the perception of both the friendship and the advice networks at work is enhanced by the extent to which the individual monitors his or her expressive behavior and the social environment. Since I focused on two types of social networks (the advice network and the friendship network) that have been also analyzed in previous studies, my results can be directly compared to – and discussed in the light of – the findings offered by those studies. I tested my hypotheses by using the social network perceptions of a group of managers employed in a large multinational firm.

THEORY

Structural Positions and Accuracy in Social Network Perception

Intuitively, the primary source of information about the overall structure of a social network is direct involvement in the social network itself. Degree centrality is a basic measure of an individual's involvement in a social network as it refers to the number of relations he or she has in the network (Wasserman & Faust, 1994: 100). For specific relations (i.e., when the network refers to one relation among actors at a time), degree centrality can be equivalently defined as the number of other actors an individual is directly connected to (i.e., his or her partners). An individual who has many partners in a network clearly has an advantage in accurately perceiving the overall pattern of relations existing among others in the network. Having many partners may imply having many sources of information about others' relationships: partners may directly provide information about their own relations with others (e.g., as when a friend talks about another friend of his, so that one gets the information that between the two there is a friendship relation), as well as about the relations of their partners with third parties (e.g., as when a friend talks about the relation existing between two friends of his). Moreover, being highly involved in a network may imply having more chances to see other members interacting one with another simply as a result of a greater participation in the activities of the social group. Observing others interacting is clearly another source of information about the social structure of the group.

With directional relations (relations which have a direction as one is the source and the other is the recipient of an action or a feeling), it is usually

interesting assessing if an individual's involvement in a network is due the fact that he or she is the source or the recipient of many ties. Indegree is a centrality index that counts only the relations directed to a focal individual that originate from others in the network, while outdegree is a centrality index that counts only the relations that originate from a focal individual and are directed to all others. For instance, when the relation is "seek advice", outdegree is the number of people approached by a focal individual for advice, while indegree is the number of people who approach a focal individual for advice. Indegree and outdegree are two forms of degree centrality that capture different aspects of an individual involvement in a network: while outdegree is a measure of the relational activity of an actor (who actively takes part to the network by initiating ties), indegree is a measure of his or her prestige (the extent to which he or she is chosen by others in the network) (Wasserman & Faust, 1994: 169-203).

The extent to which an individual accurately perceives the advice network in the workplace may be affected by the extent he or she takes part in the network by seeking and/or by giving advice. An individual who uses to approach another individual for advice, is likely to provide the latter with information about the people he or she have consulted or intend to consult about the same topic or other related topics. Moreover, the advisor may encourage the individual to develop advice relations with other specific people in the network. In the long run, the advisor is likely to come to know how the personal networks of those he advises evolve over time. Even when an individual stops being a stable source of advice for another person, he or she is likely to remain in contact with the person he or she previously supported obtaining information on that person's new advice contacts in the workplace. The more people the advisor supports with his or her advice, the

more information about the social structure that is likely to flow to the advisor in return. Therefore, providing advice may imply voluntary or involuntary getting information on the structure of the network and thus improving one's own perception of the network itself. At the same time, advice-seekers are likely to come to know which other people use to turn to their advisors for same type of help. Advisors themselves may encourage the formation of direct, cooperative relations between people they advice. Therefore, one can expects that the more advisors an individual has, the more information about the network that he or she is likely to obtain in return. I therefore hypothesize that advice-seekers and advice-givers have more opportunities to receive information about the structure of the advice network than people occupying more marginal positions in either a sense or the other. In others words, I expect that both incoming and outgoing advice relations have a positive effects on one's accuracy in the perception of the network, as stated in the following hypothesis:

Hypothesis 1a: Indegree centrality in the advice network is positively related to accuracy in the perception of the advice network.

Hypothesis 1b: Outdegree centrality in the advice network is positively related to accuracy in the perception of the advice network.

Indegree centrality in the friendship network may be predictive of a higher accuracy in the perception of the friendship network itself. Individuals who are nominated by many others as friends are likely to get information about the informal structure of the friendship network through others' accounts of their concurrent friendship relations. Considering others as friend per se, however, seem

neither to give any particular advantage in – nor to prevent an individual from – accurately perceiving the friendship network. A person who considers others as friends but is not reciprocated in his or her feeling, is more likely to provide information in the attempt to gain others' acceptance and liking than to receive information by others. I therefore expect that incoming friendship relations positively affect accuracy in the friendship network perception, but that outgoing relations do not have either a positive or a negative effect on accuracy:

Hypothesis 2a: Indegree centrality in the friendship network is positively related to accuracy in the perception of the friendship network.

Hypothesis 2b: Outdegree centrality in the friendship network is unrelated to accuracy in the perception of the friendship network.

Self-monitoring and Accuracy in Social Network Perception

Self-monitoring refers to the tendency to control, adjust and adapt expressive behavior to make it appropriate to the situation and favorably impress others (Snyder, 1974). High self-monitors are individuals who have a strong desire to project positive images of themselves and thus tend to regulate their self-presentation and expressive behavior according to the requirements of the situation in which they find themselves. They constantly scan their surroundings in search of cues for appropriate behavior and use these cues as guidelines for modifying and managing their self-presentation. Being guided by contextual factors, they tend to display inconsistent behavior and attitudes across situations and audiences (Gangestad & Snyder, 2000). By contrast, low self-monitors are individuals who

are not willing and/or able to modify their behavior to meet social expectations and impress others (Snyder, 1974). They express behavior that is consistent with their inner attitudes and emotions and remain true to themselves even when “doing so means sailing against the prevailing winds of their social environments” (Snyder, 1987: 5). Since they are unwilling, and usually also unable, to put forward false image of themselves for the sake of social appropriateness, they pay relatively less attention to their surroundings and display a lower variability in their self-presentation than do high self-monitors (Gangestad & Snyder, 2000).

At the heart of self-monitoring is the ability to detect “cues in a situation which indicate what expression or self-presentation is appropriate and what is not” (Snyder, 1974: 527). To effectively adapt their behavior to the requirement of the situation, high self-monitors need to understand what behavior the situation actually requires. Therefore, being able to monitor oneself implies being able to monitor the environment in which social interaction takes place. Among the cues that high self-monitors use to guide their behavior there are the expression and self-presentation of others in the same situation (Snyder, 1974). High self-monitors were found to observe or consult information about the typical self-presentations of their peers more often and for longer periods of time than low self-monitors before expressing themselves and offering their opinions (Snyder, 1974; Rhodewalt and Comer, 1981). In addition to others’ verbal behavior, high self-monitors pay particular attention to the nonverbal expressive behavior of those around them (Snyder, 1987). Compared to low self-monitors, they are more skilled at reading others to infer their emotional states (Snyder, 1987). Specifically, they were found to be better than low self-monitors at decoding vocal cues to understand intended meanings in others’ verbal expressions (Mill, 1984). Moreover, they were found to

be more accurate than low self-monitors in recognizing others' attempts of deception (Brandt, Miller, and Hocking, 1980; Geizer, Rarick, and Soldow, 1977).

The attention that high self-monitors constantly pay to their surroundings as source for cues to behavioral appropriateness, as well as their ability to decode information embedded in their social context, make it plausible to hypothesize a positive relationship between self-monitoring and accuracy in the perception of social networks. This higher accuracy may be a consequence of their attentive monitoring of the social environment (i.e., something they develop involuntary while looking at others' behavior in search for cues) and/or something that they voluntarily seek to maximize in order to better understand which people they can take as a model for their own behavior: since high self-monitors are motivated to model and imitate the behavior of others in the same situation who appear to be behaving appropriately (Snyder, 1974: 527), being aware of others' relationships and popularity may give them a considerable advantage in deciding whom to imitate. For instance, popular people in the friendship network (people who are considered by many others as friends) may be considered by high self-monitors as models to imitate to be accepted in the social context, arouse others' positive judgment, and increase their own popularity. Furthermore, high self-monitors may use social relations as signal of others' usefulness and attractiveness as potential partners. In the working context, having a clear understanding of the advice network may provide them with information on who is more competent and/or counts more in the workplace. Consistently with the fact that they tend to prefer skilled partners for their activities (Snyder, Gangestad, & Simpson, 1983) and tend to have high status friend and mentors (Mehra, Leonard, & Katerberg, 2003), they should be interested in assessing others' popularity in the advice and friendship

network to locate (and then to establish direct connections with) the most prestigious actors. In fact, while rank is a measure of the formal prestige or status of a person, popularity in a social network (being chosen by others) can be seen a measure of his or her prestige in social terms (Wasserman & Faust, 1994: 202-203). All these lines of reasoning suggest that social networks may be something that high self-monitors are specifically motivated to observe in their environment to achieve various ends (e.g., identifying reliable behavioral models, getting others' acceptance, identify potential attractive partners who could help them perform better or gain social status). Therefore, I predict the following:

Hypothesis 3a: Self-monitoring is positively related to accuracy in the perception of the advice network.

Hypothesis 3b: Self-monitoring is positively related to accuracy in the perception of the friendship network.

METHODS

Sample

I conducted my research with managers employed in the marketing and sales department of a large multinational company in the agricultural equipment industry. In Europe, the company owned 11 business units located in 10 countries engaged in the distribution of equipment and machinery for agricultural activities to the European market. In some national markets where the company did not own a unit, business was run by managers responsible for dealing with importers. I addressed my survey to 47 managers employed in the marketing and sales

department of the company, in charge of the day-to-day running the company's European commercial operations. During the data collection, one manager left the company while another was substituted by a manager who was already included in the sample. The remaining 45 managers completed the entire survey. They were all men. The average respondent was 45.98 years old (s.d. = 7.27) and had worked in the company for 206.69 months (s.d. = 127.76). As for nationality, 31.1 percent of the respondents were Italian, 17.8 percent were British, 13.3 percent were French, 13.3 percent were German, 6.7 percent were Danish, 6.7 percent were Belgian, 4.4 percent were Spanish, 2.2 percent were Portuguese, 2.2 percent were Polish, and 2.2 percent were Dutch. As for race, they were all Caucasian.

Data Collection

The data used in this study were collected as part of a larger data collection effort. Data were collected via an e-mail survey which took respondents about 30-35 minutes to complete. The full effort consisted in the administration of two separate questionnaires and included self-reported scales and sociometric answers for a number of additional variables and social relations respectively. The data used in this study were collected by means of the second questionnaire. The questionnaire was translated (and back-translated) from English to French, Italian, and German by three independent translators. Although English was widely used within the company at all levels (i.e., it was the company's official language), this procedure assured the full comprehension of the questions among respondents. The four languages were chosen as they reflected the different mother tongues and nationalities of participants. The only exception was represented by Spanish

participants: although I proposed to include a Spanish version of the questionnaire, the company assured me that it was not necessary since they mastered both English and Italian very well. The English version of the questionnaire was pretested and discussed with three human resource managers and the Vice President of the company to ensure correct use of relevant language and interpretation of the instrument.

The questionnaire (in the four linguist versions) was sent to participants by the company's corporate offices as attached to an e-mail message informing them of the survey and asking for their cooperation. Each respondent was invited to complete the version of the questionnaire which was written in his mother tongue or second language (for Spanish participants). Along with the questionnaire, participants also received a letter from the researcher describing the research project and assuring confidentiality. They were instructed to send back their completed survey directly to me, either via mail or via e-mail as they preferred. The questionnaire circulated in a special electronic format allowing the respondent to fill it out completely on his pc without printing it. While retaining all the advantages connected to online survey, completing my questionnaire did not require any Internet connection, and was therefore even more flexible than online survey. Since my respondents spent a large portion of their working time traveling abroad, this condition assured that they could have filled out the questionnaire in any moment without particular restrictions. In addition, those who preferred paper-and-pencil questionnaires did maintain the possibility to print the questionnaire and complete it by hand. This turned out to be an useful strategy to speed and facilitate the entire data collection process.

Some days after the company's formal invitation, I sent a separate e-mail message to participants thanking them for their help and invited them to contact me in case of need in completing the questionnaire or understanding particular questions. I also asked Spanish speakers to let me know if they would prefer to fill out a Spanish version of the questionnaire; in that case, I would readily arranged that version. However, no one of them made such request. In the following weeks, reminders were sent via e-mail by both the human resource managers of the company and me to nonrespondents. At the end, all of them returned me their survey. As previously mentioned, I got back 45 completing surveys, representing the 100 per cent of all the possible surveys I could collect.

Measures

Centrality scores and accuracy scores. I collected network data by means of a questionnaire specifically designed to assess each individual's personal view of the entire social advice and friendship networks. I asked each participant two questions about each of the 45 participants in the survey. To assess the advice network, I asked a question like this: "Who would Mark turn to for help or advice on work-related matters?". To assess the friendship network, I asked the following: "Who would Mark consider to be a personal friend?". Each question was followed by a list of 45 names. Each respondent was asked to place a check next to the names of all the people that Mark was likely to go to for advice or consider as personal friends. Each individual's cognitive map and the actual structure of the friendship and advice network was reconstructed by using the methods first described by Krackhardt (1987). In particular, I relied on the notion of Cognitive

Social Structure (Krackhardt, 1987: 113-118). Krackhardt (1987: 113) defined the cognitive social structure (CSS) of a system as a set of elements $\mathbf{R}_{i,j,k}$ where \mathbf{R} is the relation under study, i is the sender of the relation, j is the receiver of the relation, and k is the perceiver of the relation from i to j . $\mathbf{R}_{i,j,k}$ has a binary form zero-one where 0 means that k does not perceive the existence of a relation directed from i to j (i.e., k does not perceive that i goes to j for advice, or that i considers j as a personal friend). Formally:

$$\mathbf{R}_{i,j}^k = \begin{cases} 1 & \text{if } \mathbf{R}_{i,j,k} = 1 \\ 0 & \text{if } \mathbf{R}_{i,j,k} = 0 \end{cases}$$

The cognitive map of each perceiver k is simply defined as the square matrix \mathbf{R}^k of dimension $N \times N$ (where N is the number of actors in the network) comprising all the elements $\mathbf{R}_{i,j,k}$ for a given k . To reconstruct the actual structure of the network, I used a Locally Aggregated Structure (LAS) based on the following rule: I assigned a value of 1 to each cell r_{ij} of the ‘actual’ matrix if i reported in his own questionnaire that he would ask advice to j or that he would consider j as a personal friend. Formally:

$$\mathbf{R}'_{i,j} = \begin{cases} 1 & \text{if } \mathbf{R}_{i,j,i} = 1 \\ 0 & \text{if } \mathbf{R}_{i,j,i} = 0 \end{cases}$$

The method I used to define the ‘actual’ structure of the advice and friendship networks is only one of the possible approaches to the definition of the ‘actual’ structure of a network based on the aggregation of individual network perceptions (Krackhardt, 1987: 114-118). In particular, I decided to consider a relation between i and j as existing only if i reported it existed. For friendship relations, this decision

was motivated by the fact that, being friendship a feeling, each person was probably the unique to know if he or she personally feels a friendship feeling toward another. As for advice relations, the long physical distance existing among participants in my survey was likely to lower their perceptions of the advice relations in which they were directly involved as receivers. While a person clearly knows if he or she would go to another person for advice or help, he or she might find more difficult to have the right perception of who would go to him or her for advice in a context characterized by long physical distance and a relatively high dissimilarity between actors. Bondonio's (1998) results partly support this view. He found, in fact, that individuals are more inaccurate in perceiving their incoming ties when these ties originate from and are reported by more dissimilar people. Interviews with participants in my survey after the data collection confirmed my position. They told me that they had reported their impressions but that only the source of the tie would represent a valid source of information about the actual existence of the tie itself. These considerations lead me to define the actual structure of the advice network by recording only each participant's reports of his outgoing ties (seeking-advice ties) and excluding participants' reports of their incoming ties.

After obtaining the actual structure of the advice and friendship networks, I computed indegree and outdegree centrality scores (Freeman, 1979). Degree centrality is the total number of relations pointing to an individual, while outdegree is the total number of relations starting from an individual and pointing to others in the network. For instance, in the advice network, each participant's indegree score was the number of people who would go to him for advice, while the outdegree score the number of people he would approach for advice.

Following Bondonio (1998: 310), the level of accuracy in perceiving the overall structure of the social network of each participant was measured as:

$$ACC_k = [N * (N - 1)] - (\sum_i \sum_j | R_{i,j,k} - S_{i,j} |).$$

Where k represented a generic perceiver, $S_{i,j}$ was the value of any possible tie (i,j) as recorded in the actual structure used in this study, $N * (N - 1)$ was the total number of possible ties in the network (excluding reflecting ties, i.e., the diagonal of each perceiver k 's cognitive map), and $R_{i,j,k}$ was the perceiver k 's perception of the tie between i and j . Such a way to conceptualize and measure accuracy implies that "k's accuracy score is equal to the number of possible ties for which k's cognitive map matches the corresponding value recorded in the 'actual' structure" (Bondonio, 1998: 310).

Self-monitoring. I used the revised 18-item true-false version of the Self-Monitoring Scale (Snyder & Gangestad, 1986: 137) to measure self-monitoring. The scale is the shortened version of the original 25-item true-false scale developed by Snyder (1974); as explained in Snyder and Gangestad (1986: 137), the revised version of the scale possesses an higher reliability and is more factorially pure than the originally proposed version. The scale consists of self-descriptive statements designed to enlighten multiple facets constituting the self-monitoring orientation, such as: (1) concern with situational appropriateness of self-presentation (e.g., "At parties and social gatherings, I do not attempt to do or say things that others will like"), (2) ability to control expressive behavior (e.g., "I can look anyone on the eye and tell a lie [if for a right end]"), (3) use of this ability in particular situations (e.g., "I may deceive people by being friendly when I really dislike them"), and (4) situation-to-situation shifts in expressive self-presentation (e.g., "In different

situations and with different people, I often act like very different persons”)
(Snyder, 1987: 15-16). In the present research, the reliability of the scale as assessed by Cronbach’s (1951) alpha was .79, that is slightly higher than the mean reliability reported in previous studies on self-monitoring based on the same scale ($\alpha = .73$; reviewed in Day et al. 2002: 393). I added a point for each response in the keyed direction and I normalized the score by dividing it by its maximum value. I used this normalized value as the self-monitoring score.

The construct validity of the Self-Monitoring scale has been widely discussed (cf. Snyder & Gangestad, 1986; Gangestad & Snyder, 2000; Day, Schleicher, Unckless, and Hiller, 2002). Although multiple content domains are represented by the measure, a recent and systematic examination of the literature on self-monitoring’s empirical relations with a variety of behavioral and attitudinal criterion variables showed that the Self-Monitoring scale does tap a large general factor (a single personality variable), which explains a substantial amount of the whole variance of the measure and is approximated by the first unrotated factor (Gangestad & Snyder, 2000; see also Snyder & Gangestad, 1986). This latent general factor reflects a conceptually meaningful dimension that is the self-monitoring orientation. This comprehensive examination of the self-monitoring literature reached the conclusion that the propensity for self-monitoring can be conceptualized a unitary phenomenon. This propensity was found to be highly stable over time, as indicated by test-retest studies conducted over periods of one month to 3.5 months using the original 25-item Snyder’s scale (reviewed in Snyder, 1987: 17). Moreover, studies on the self-monitoring orientation of monozygotic and dizygotic twins suggest that self-monitoring, as detected by the Self-Monitoring Scale, is likely to have a biological basis (reviewed in Snyder &

Gangestad, 1986: 128), providing additional support for the temporal stability of both the instrument (providing stable self-monitoring scores over time) and the concept (self-monitoring as a stable personality trait).

Control variables

I controlled for two variables which could affect the dependent and/or independent variables:

Tenure. I included tenure in all the analyses as it could affect both the individual's structural position in the social network and his degree of accuracy in perceiving the network itself. Individuals who have been working in an organization for a long time are more likely to have formed relations with other organizational members than individuals just hired or working in the organization for a short time. As a result, high-tenure individuals are more likely to occupy central positions in the social network than low-tenure individuals. Moreover, individuals who have been with an organization for a longer period of time probably had more opportunities in the past to see members of their social group interacting one with another in different situations and contexts, and hence also more opportunities to get a sense of others' relationships and adjust their perceptions. I coded organization tenure as the length of time, in months, an individual had been employed by the company.

Rank. I controlled for rank in all my analyses as it could directly affect both the individual embeddedness in the social networks and the degree of accuracy in perceiving the networks. Individuals holding high-rank positions have more opportunities to interact with other organizational members than people

employed at lower levels. High-ranking individuals are more likely to occupy central positions in social networks as a consequence of their greater job responsibilities and greater decision-making authority. In addition, supervisors or directors are likely to have greater relevant experience and greater understanding of the expectations and responsibilities associated to lower job positions than peers (Morrison, 2002), therefore they may be seen as more reliable potential source of information and be more sought for professional advice and feedback. Therefore, people at higher hierarchical levels are more likely to occupy central positions in the advice network . In addition, as suggested by Krackhardt (1990) and Casciaro (1998), supervisors are often entitled to explicitly ask their subordinates for information on their relations with coworkers. This suggests that supervisors may have more accurate perceptions of the advice network even independently from their position in network. However, because of their formal role and authority, higher-level participants may find themselves excluded by the informal friendship network that develop at lower levels of the organization (Casciaro, 1998). Therefore, the occupation of high-ranking positions may prevent individuals from occupying central positions in the friendship network. There were four hierarchical managerial levels in the company. Using company records, I coded rank as 1 = functional manager (e.g., marketing managers), 2 = business director or export manager, 3 = member of the Vice President's staff, 4 = Vice President.

RESULTS

Descriptive Statistics

Table 1 presents means, standard deviations, and zero-order correlations among the variables. On average, respondents had been with the company for almost 207 months, corresponding to more than 17 years. Longer employment in the company was associated (although not significantly) to occupation of high-ranking positions, indicating that respondents who had been promoted to higher ranks were also those who had been employed in company for a longer time.

The pattern of correlations reveals a number of interesting associations between variables in these univariate tests. First, individuals working at higher hierarchical levels tended to be approached for advice and be considered as friends by a higher number of people in the organization (coefficients were respectively, .68, $p < .001$; 52, $p < .001$). Consistent with this preliminary evidence, prominence in the advice network was positively associated with prominence in the friendship network: Individuals who were considered as valid sources for advice tended to be also considered as friends (.67, $p < .001$). Moreover, individuals having more incoming friendship ties also tend to have more outgoing friendship ties, suggesting a high level of reciprocity in the friendship relations (.51, $p < .001$). As for self-monitoring, individuals with shorter employment at the company tended to have a significantly higher self-monitoring score (-.31, $p < .05$). Individuals employed at higher levels, more sought for advice, and more active in seeking advice tended to have more accurate perceptions of the overall structure of the advice network (coefficients were respectively, .42, $p < .01$; 57, $p < .001$; .48, $p < .001$). Interestingly, prominence in the friendship network was positively associated with accuracy in the perception of the advice network (.37, $p < .05$). Finally, individuals with more incoming and outgoing friendship ties had more accurate perceptions of the friendship network (.44, $p < .01$; 57, $p < .001$).

Table 1
Means, Standard Deviations, and Correlations^{*}

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9
40. Tenure ^a	206.69	127.77									
41. Rank ^b	1.4	.73	.14								
42. Advice indegree	4.64	3.95	.22	.68***							
43. Advice outdegree	4.64	2.85	.11	.20	.26 ⁺						
44. Friendship indegree	3.47	2.68	.13	.52***	.67***	.19					
45. Friendship outdegree	3.47	3.14	.09	.25	.21	.23	.51***				
46. Self-monitoring	0.46	0.22	-.31*	-.12	-.15	.23	-.15	.17			
47. Advice accuracy	1784.44	16.46	.06	.42**	.57***	.48***	.37*	.13	.13		
48. Friendship accuracy	1827.51	5.49	-.24	.08	.15	.14	.44**	.57* **	.21	.28 ⁺	

^a coded as the length of time, in months, that the respondent had been employed in the company

^b coded as 1 = functional manager, 2 = business director or export manager, 3 = member of the Vice President's staff, 4 = Vice President

+ p < .10; * p < .05; ** p < .01; *** p < .001

^{*}N=45

Structural Positions, Self-monitoring, and Accuracy in the Advice Network Perception

I used a hierarchical regression analysis based on OLS (ordinary least squares) regression equations to examine the effects of degree centrality in the advice network and self-monitoring on individuals' ability to accurately perceive the structure of the network (Hypotheses 1a, 1b, and 3a). I included tenure and rank as control variables at the first step. At the second step, I entered indegree and outdegree centrality scores, and self-monitoring.

Table 2 presents the results of the regression analysis examining the effects of structural positions and self-monitoring on accuracy in the perception of the advice network. The results revealed that, controlling for tenure and rank, both indegree and outdegree centrality significantly predicted accuracy in perceiving the advice network ($\beta = 2.04, p < .01$; $\beta = 1.85, p < .05$). The coefficient of the relationship between prominence in the advice network (incoming ties) and perception of the overall network was particularly high, as was the strength of their association. Hypotheses 1a and 1b were therefore supported.

Contrary to expectations, controlling for tenure, rank and structural positions, self-monitoring did not significantly predict accuracy in the perception of the advice network ($\beta = 8.89, n.s.$).

Table 2
Results of Regression Analyses Predicting Accuracy in the Perception of the
Advice Network (N=45)

Variable	Accuracy in Advice Network Perception	
	Model 1	Model 2
Tenure	.00	-.01
Rank	9.47**	.09
Advice indegree		2.04**
Advice outdegree		1.85*
Self-monitoring		8.89
Model F	4.43*	6.67***
ΔF		6.92***
R ²	.17	.46
ΔR^2		.29
Adjusted R ²	.14	.39

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

Structural Positions, Self-monitoring, and Accuracy in the Advice Network Perception

I used the same procedure to examine the effects of degree centrality in the friendship network and self-monitoring on individuals' ability to accurately perceive the structure of the friendship ties (Hypotheses 2a, 2b, and 3b). I performed a hierarchical regression analysis based on OLS (ordinary least squares) regression equations to test my hypotheses. I included tenure and rank as control variables at the first step. At the second step, I entered indegree and outdegree centrality scores, and self-monitoring.

Table 3 presents the results of the regression analysis examining the effects of structural positions and self-monitoring on accuracy in the perception of the friendship network. The results revealed that, consistently with Hypothesis 2a, controlling for tenure and rank, indegree centrality in the friendship network significantly predicted accuracy in perceiving the network ($\beta = .69, p < .05$). Unexpectedly, outdegree centrality in the friendship network was positively and significantly associated with accuracy in perceiving friendship ties ($\beta = .79, p < .01$). Therefore, Hypothesis 2b was not supported. Besides being significant, the association between outdegree in the friendship network and accuracy was even stronger than the association between indegree and accuracy.

In this case too, controlling for tenure, rank and structural positions, a higher self-monitoring score was not significantly associated to a more accurate perception of the social network ($\beta = 1.95, n.s.$).

Table 3
Results of Regression Analyses Predicting Accuracy in the Perception of the
Friendship Network (N=45)

Variable	Accuracy in Friendship Network Perception	
	Model 1	Model 2
Tenure	-.01 ⁺	-.01*
Rank	.86	-1.21
Friendship indegree		.69*
Friendship outdegree		.79**
Self-monitoring		1.95
Model F	1.60	7.02***
ΔF		9.95***
R ²	.07	.47
ΔR^2		.40
Adjusted R ²	.03	.41

⁺ p < .10; * p < .05; ** p < .01; *** p < .001; entries represent standardized regression coefficients

Additional analysis

The results presented in Table 2 supported the existence of a mediating effect of rank on accuracy in the perception of the advice network via effects on centrality in the advice network. Such a mediation was supported by the fact that the significant, positive relationship between rank and accuracy was eliminated after controlling for the positive effects of centrality in the advice network (Baron & Kenny, 1986). To assess whether rank could significantly predict indegree and/or outdegree centrality in the advice network, I performed two additional, separate regression analyses. In each analysis, I entered tenure on the first step as control, and rank on the second step.

Table 4 presents the result of the regression analyses examining the effects of rank on indegree centrality and outdegree centrality in the advice network. As expected, controlling for tenure, I found a strong positive association between rank and prominence in the advice network ($\beta = 3.63$, $p < .001$). To summarize, the overall pattern of results concerning the advice network indicated that higher-ranking individuals were more likely to occupy prominent positions in the advice network, and these positions were in turn likely to provide individuals with more accurate perception of the overall network structure.

Table 4
Results of Regression Analyses Predicting Structural Positions in the Advice Network (N=45)

Variable	Advice indegree		Advice outdegree	
	Model 1	Model 2	Model 1	Model 2
Tenure	.01	.00	.00	.00
Rank		3.63***		.74
Model F	2.16	19.64***	.50	1.02
ΔF		35.39***		1.53
R ²	.05	.48	.01	.05
ΔR^2		.43		.04
Adjusted R ²	.03	.46	-.01	.00

+ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

DISCUSSION

The results of the present research provided new evidence supporting the importance played by individuals' position in both the formal and informal

structure of the organization in determining their accuracy in the social context (Bondonio, 1998; Casciaro, 1998; Krackhardt, 1990). The impact of the formal structure on individuals' accuracy is demonstrated by the impact of rank on individuals' perceptions of the advice network. According to my results, the effects of rank on accuracy are completely mediated by the position that individuals occupy in the informal structure of the advice network. This finding contradicts previous research but is line with general theoretical arguments and expectations: Krackhardt (1990) did not find support for his prediction that people holding higher positions in the formal hierarchy had a more accurate perception of the advice network in the organization, while Casciaro (1998) found an expected negative relationship between rank and accuracy in the perception of the advice network. Building on Krackhardt's (1990) finding that accuracy in the perception of the advice network lead to power, Casciaro (1998) interpreted this finding as a consequence of the fact that higher-level employees were not interested in developing a more accurate perception of the advice network since they did not need to acquire power. Although contrasting with previous research and subsequent interpretations, my findings are consistent with my argument that high-ranking individuals have greater relevant experience and greater understanding of the expectations and responsibilities associated to lower job positions than peers (Morrison, 2002), are therefore more likely to be sought for professional advice and feedback.

As for the findings proving the impact of the informal structure on individuals' accuracy, I found that the position individuals occupy in the informal network affected the perception that they have of the network itself. Both indegree and outdegree centralities in the advice network significantly contributed to explain

individuals' differences in accurately perceiving the advice network. These findings are in line with previous research: Bondonio (1998) and Casciaro (1998) found a positive association between prominence (incoming ties) in the advice network and accuracy in the perception of the network. In the present study, I also demonstrated a positive relationship between the number of *outgoing* advice ties and accuracy. Indegree and outdegree centrality in the friendship network explained variability in individuals' accuracy in perceiving friendship ties. Particularly interesting was the positive effect of outdegree on accuracy. This result suggests that people with positive feelings toward others are more interested in their social surroundings than people who do not regard their coworkers as friends. Being more interested in getting involved in the friendship network, these people probably pay more attention to the friendship dynamics in their social group.

As for the effects of self-monitoring on accuracy, I found that this personality trait was unrelated to accuracy in perceiving both the advice and friendship networks. High self-monitors were not more likely than low self-monitors to accurately perceive the social ties connecting others in their own environment. This result, although surprising on the basis of the sensitivity that characterizes the trait, was found also in previous research (Casciaro, 1998). Casciaro justified this finding as something probably due the ambiguity of Snyder and Gangestad's (1986) Self-monitoring Scale as a measurement instrument (e.g., Briggs & Cheek, 1988) and to the fact that she found a low reliability of the scale, therefore as a methodological problem. Although I found a high reliability of the scale, self-monitoring was unrelated to accuracy in this study too. This suggests that high self-monitors pay attention to their surroundings in search for cues to

social appropriateness but are not specifically interested in getting accurate perceptions of others' social relations.

CONCLUSION

In summary, in this study I addressed the question of what determines individuals' perception of the structure of their social groups. In trying answering this question, I analyzed the effects of two classes of potential determinants: the position that the individual occupies in the social structure of the organization and his ability and tendency to monitor his behavior and that of those in his surroundings (i.e., self-monitoring). I found that individuals who occupy more central position in their social networks have also more accurate perceptions of the overall structure of those networks. Instead, I did not find support for my hypothesis stating a positive association between self-monitoring and accuracy in social network perception. These results have been compared and discussed in the light of those provided by the few existing studies on these issues.

REFERENCES

- Baron, R. M., & Kenny, D. A. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51: 1173-1182.
- Bernard, H. R., & Killworth, P. 1977. Informant accuracy in social network data II. *Human Communications Research*, 4: 3-18.
- Bernard, H. R., Killworth, P., & Sailer, L. 1980. Informant accuracy in social network data IV: A comparison of clique-level structure and behavioral and cognitive data. *Social Networks*, 2: 191-218.
- Bernard, H. R., Killworth, P., & Sailer, L. 1982. Informant accuracy in social network data V: An experimental attempt to predict actual communication from recall data. *Social Science Research*, 11: 30-66.
- Bondonio, D. 1998. Predictors of accuracy in perceiving informal social networks. *Social Networks*, 20: 301-330.
- Borgatti, S. P., Everett, M. G., & Freeman, L. C. 2002. UCINET for Windows: Software for Social Network Analysis. Harvard: Analytic Technologies.
- Brandt, D. R., Miller, G. R., & Hocking, J. E. 1980. Effects of self-monitoring and familiarity on deception detection. *Communication Quarterly*, 28: 3-10.
- Briggs, S. R., & Cheek, J. M. 1988. On the nature of self-monitoring: Problems with assessment, problems with validity. *Journal of Personality and Social Psychology*, 54 (4): 663-678.
- Casciaro, T. 1998. Seeing things clearly: Social structure, personality, and accuracy in social network perception. *Social Networks*, 20: 331-351.

- Casciaro, T., Carley, K. M., & Krackhardt, D. 1999, Positive affectivity and accuracy in social network perception. *Motivation and Emotion*, 23: 285-306.
- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, 16: 297-334.
- Day, D. V., Schleicher, D. J., Unckless, A. L., & Hiller, N. J. 2002. Self-monitoring personality at work: A meta-analytic investigation of construct validity. *Journal of Applied Psychology*, 87, 2: 390-401.
- Freeman, L. C. 1979. Centrality in social networks: Conceptual clarification. *Social Networks*, 1: 215-239.
- Freeman, L., & Romney A. K. 1986. Words, deeds and social structure. *Human Organization*, January.
- Gangestad, S. W., & Snyder, M. 2000. Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin*, 126: 530-555.
- Geizer, R. S., Rarick, D. L., & Soldow, G. F. 1977. Deception and judgment accuracy: A study in person perception. *Personality and Social Psychology Bulletin*, 3: 446-449.
- Killworth, P., & Bernard, H. R. 1976. Informant accuracy in social network data. *Human Organization*, 35: 269-286
- Killworth, P., & Bernard, H. R. 1979. Informant accuracy in social network data III: A comparison of triadic structures in behavioral and cognitive data. *Social Networks*, 2: 19-46.
- Krackhardt, D. 1987. Cognitive social structures. *Social networks*, 9: 109-134.
- Krackhardt, D. 1990. Assessing the political landscape: structure, cognition, and power in organizations. *Administrative Science Quarterly*, 35: 342-369.

- Krackhardt, D. 1992. The strength of strong ties: the importance of philos. In N. Nohria, & R. G. Eccles (Eds.), *Network and Organization*. Boston: Harvard Business School Press.
- Krackhardt, D., & Hanson, J. 1993. Informal networks: the company behind the chart. *Harvard Business Review*, 71: 104-111.
- Mehra, A., Leonard, A. S., & Katerberg, R. 2003. *Self-monitoring and social network in academia: The social capital of minority doctoral students*. Paper presented at the Academy of Management Annual Meeting, Seattle, WA.
- Mill, J. 1984. High and low self-monitoring individuals: Their decoding skills and empathic expression. *Journal of Personality*, 52: 372-388.
- Morris, A. 1996. *Accurate cognition of social structure and managerial effectiveness*. Paper presented at the Annual Meeting of the Society of Industrial and Organizational Psychology, San Diego, CA.
- Morrison, E. W. 2002. Newcomers' relationships: The role of social network ties during socialization. *Academy of Management Journal*, 45: 1149-1160.
- Rhodewalt, F., & Comer, R. 1981. The role of self-attribution differences in the utilization of social comparison information. *Journal of Research in Personality*, 15: 210-220.
- Simpson, B., & Borch, C. 2005. Does power affect perception in social networks? Two arguments and an experimental test. *Social Psychology Quarterly*, 68 (3): 278-287.
- Snyder, M. 1974. Self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30: 526-537.
- Snyder, M. 1987. *Public appearances, private realities: The psychology of self-monitoring*. New York: W. H. Freeman.
- Snyder, M., & Gangestad, S. 1986. On the nature of self-monitoring: Matters of assessment, matters of validity. *Journal of Personality and Social Psychology*, 51: 125-139.

- Snyder, M., Gangestad, S., & Simpson, J. A. 1983. Choosing friends as activity partners: The role of self-monitoring. *Journal of Personality and Social Psychology*, 45 : 1061-1072.
- Wasserman, S., & Faust, K. 1994. *Social Network Analysis: Methods and Applications*. Cambridge University Press.

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Titolo tesi di dottorato: Personality and social networks at work: Implications for managerial performance, commitment and network perception

Abstract of the PhD dissertation

This dissertation is about social relations in organizations and their implications for individuals. The dissertation is divided into three parts. In the first part, I analyze the effects of individual structural positions within social networks and the effects of self-monitoring, a personality trait, on work performance. In the second part, I analyze the effects of social relations and self-monitoring on the degree of organizational commitment of the members of the organization. Finally, in the third part I analyze the effects of structural positions and self-monitoring on the degree of accuracy with which individuals perceive their social networks. I address all my research questions and test my hypotheses in the context of a large multinational company.

Abstract della tesi di dottorato

La presente tesi di dottorato ha come oggetto le relazioni sociali esistenti all'interno delle organizzazioni e le implicazioni che queste hanno per gli individui. L'elaborato è suddiviso in tre parti. Nella prima parte analizzo gli effetti delle posizioni individuali nelle reti sociali e del *self-monitoring*, un tratto della personalità, sulla performance lavorativa. Nella seconda parte, analizzo gli effetti delle relazioni sociali e del *self-monitoring* sul livello di *commitment* (impegno) dei membri dell'organizzazione. Infine, nella terza parte, analizzo gli effetti delle posizioni strutturali e del *self-monitoring* sull'accuratezza con la quale gli individui percepiscono le loro reti sociali. Tutte le domande di ricerca e le ipotesi della presente ricerca sono analizzate e testate nel contesto di una grande impresa multinazionale.

Firma dello studente