

**ROUTES TO ORGANIZATIONAL INFLUENCE: THE FACETS OF
POLITICAL SKILL AND SOCIAL NETWORK CENTRALITY**

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**ROUTES TO ORGANIZATIONAL INFLUENCE: THE FACETS OF
POLITICAL SKILL AND SOCIAL NETWORK CENTRALITY**

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SUMMARY

Political skill describes an individual's ability to successfully navigate the political arena of organizations (Ferris et al., 2007). The present study tested whether political skill and its four dimensions (i.e., social astuteness, interpersonal influence, apparent sincerity, and networking ability) are related to individuals' occupancy of central positions in three types of interrelated organizational social networks (i.e., workflow, communication, and friendship networks). A survey was administered to the employees of a university IT department. From employee self-reports, the three networks were drawn upon 141 employees, and hypotheses were tested with exponential random graph modeling. Findings reveal that political skill is related to high activity (i.e., sending many ties) in all three networks, but only related to high popularity (i.e., receiving many ties) in the friendship network. Findings further reveal nuanced distinctions in which facets of political skill predict which social networks. The patterns of results for networking ability were the same as for the political skill composite score. Findings suggest that politically skilled individuals carefully and strategically measure their level of activity in at-work relationships, and accrue recognition and influence through informal networks.

CHAPTER 1

INTRODUCTION

Work in organizations is facilitated by interrelated communications between interdependent groups and individuals (Lincoln & Miller, 1979). This was true three decades ago, and more so today: employees send and receive emails, arrange meetings, discuss work projects during impromptu break visits, invite and accept invitations for after-work outings. Relationships that build around formal task communications, and around informal friendships, permeate the organization and connect all the employees therein. Employees of an organization are thus embedded in a *social network*, “a set of nodes (i.e., social actors such as individuals, groups, or organizations) and ties representing some relationship or absence of a relationship among the actors,” (Brass & Krackhardt, 2012, p. 356).

The idea that relationships have important implications for the effective functioning of groups and organizations is the focal point of the field of social network analysis. An extensive body of literature supports research into the social patterning of interconnected individuals and the mechanisms by which individuals influence, and are influenced by, the networks of which they are a part (Hanneman & Riddle, 2005; Wasserman & Faust, 1994). A substantial portion of the research in social networks has studied influence related to certain prominent individuals, whose impact is described as *central* to the network. A host of different measures describe this centrality based on different structural characteristics (Bonacich, 1987; Freeman, 1979; Friedkin, 1991), the

most basic conceptualization of which is that central individuals have many connections between them and others in a network.

Unsurprisingly, central positions are associated with a substantial degree of influence in organizations (Barsness, Diekmann, & Seidel, 2005; Brass, 1984; Ibarra, 1993; Mullen, Johnson, & Salas, 1993). The idea is simple: central individuals make themselves known throughout the network, by building both formal and informal relationships with many different people in the organization. Connections to a wide variety of others privilege central individuals to a wide variety of important organizational knowledge inaccessible to those who do not enjoy comparable levels of social connection. Since information is an organizational currency of sorts, such influence is likely to ease the way to desired individual outcomes, such as faster promotions (Burt, 1992), positive performance ratings (Baldwin, Bedell, & Johnson, 1997) and personal power accumulation (Brass & Burkhardt, 1992; Ibarra & Andrews, 1993).

Central individuals reap the benefits of these positive outcomes in part because they possess a unique understanding of relative social positioning within their networks. Indeed, individuals demonstrating more accurate perceptions of relational patterning in their networks were the most central in their network (Krackhardt, 1990). A few studies have attempted to tie these differences in understanding network relationships to an individual characteristic possessed by central individuals (e.g., self-monitoring, neuroticism, openness to experience, agreeableness) (Mehra, Kilduff, & Brass, 2001; Klein, Lim, Saltz, & Mayer, 2004). Though the aforementioned constructs have well-established validity regarding individual behavior in social situations, they are not

optimized to address social understanding specific to the political underpinnings of communication exchanges and relationships occurring in an organization. Recent findings suggest that a relatively new construct, *political skill*, defined as the ability to understand the political landscape of an organization and influence the people therein (Ferris et al., 2005), may be particularly well suited to the task of predicting organizational network centrality.

Politically skilled individuals are said to possess keen understanding and influence of organizational communication and relationships, both of which likely lead to positions of prominence in social networks. Political skill operates through four facets (i.e., social astuteness, interpersonal influence, apparent sincerity, and networking ability) which function interdependently to allow skilled individuals to navigate organizational politics and achieve personal and organizational goals (Ferris et al., 2007). Understanding the role each facet plays in social effectiveness at work has been noted as an important need in the organizational literature (Ferris et al., 2012), and might be met in part via study of social network positioning. Before making specific predictions about the ways in which political skill and its facets are likely to lead to various forms of positioning within specific types of social networks, it is first necessary to better understand the nature and structure of social networks in organizations as well as the ways in which various positions within these networks are conceptualized and quantified.

Organizational Networks

Within organizations, multiple types of networks have been the focus of prior research including task exchange networks (Brass, 1981), affective networks (Hansen, 1999; Labianca & Brass; 2006), instrumental networks (Brass & Burkhardt, 1993), and

friendship networks (Lincoln & Miller, 1979). Examining various network types can be a valuable way to understand an organization's structure (and the relationships among individuals therein) because each of these networks differ in terms of formality/informality and the specific content that defines them. Social network researchers have investigated multiple overlapping types of networks, ranging from those comprising formal transactions of task-specific inputs and deliverables to those comprising informal affect-laden communication (Brass, 1984; Brass, Galaskiewicz, Greve, & Tsai, 2004; Lincoln & Miller, 1979). Simultaneously examining multiple types of networks that vary in terms of their formality and informality thereby provides valuable insight into the flow of information through organizations (Monge & Contractor, 2003).

Workflow networks

Workflow networks are the foundation of the formal network of communications regarding work task exchange (Brass, 1984). Interactions within this network relate to performance of one's job in that they contain flows of task-relevant inputs and outputs between employees. Actors in these networks differ in the extent to which they serve as critical intermediaries in the reception and distribution of workflow throughout the organization, as well as their management of task-relevant resources. An individual with strategic positioning builds influence through facilitating multiple different tasks as well as controlling the speed of transfer and weight given to certain project tasks over others (Brass, 1981; Brass, 1984; Brass & Burkhardt, 1993).

Communication networks

Communication networks facilitate the exchange of non-task information among employees. These networks differ from workflow networks in that the information resource transacted may not directly relate to work inputs and outputs, but rather to other organizationally-relevant information (e.g., organizational restructuring, opportunities for advancement, project initiatives). An individual with strategic positioning realizes influence through access to a variety of information sources, which represent different alternatives to tap for additional input (Brass et al., 2004). Information about changes or opportunities for advancement would quickly reach a strategically-placed individual, who would then have a leg up on taking advantage of this information (Brass, 1984).

Friendship networks

Friendship networks are informal social networks occurring within organizational contexts, and are based on interpersonal liking as well as shared attitudes and interests (Brass, 1984; Brass & Burkhardt, 1992; Lincoln & Miller, 1979; Morrison, 2002). The ties that link actors in a friendship network tend to be stronger as a result of frequent, intimate and reciprocal interactions. The power derived from positioning in a friendship network in an organization may not at first seem beneficial; it is well established that weak ties tend to connect to others of different circles who provide unique information (Granovetter, 1973). However, accruing friendly relations in the workplace can be an unobtrusive means toward gaining influence in an organization. Strong ties are more trust-laden and result in higher quality of shared information (Uzzi, 1997). Friendships are also beneficial in coalition building (Krackhardt, 1992) and in determining transfer of tacit information (Hansen, 1999). Thus, building strong ties can be well worth the effort.

In organizations, the three aforementioned networks comprise the salient working and nonworking relationships faced by employees on a daily basis. Moreover, in a study testing the formal and informal routes to influence among employees, Brass (1984) noted that “from a power perspective, [workflow, communication, and friendship networks] are the bases of interdependencies among workers” (p. 519). Employees able to secure prominence by accruing more connections than others will realize better control over task handoffs, information, and trust. Managed correctly, they become central to communications and, thus, integral to resource transactions in the organizational network. The next section extends this idea by discussing conceptualizations of centrality and known characteristics of central individuals.

Centrality

Networks do not afford the same opportunities to all actors. Specifically, distributions of ties among nodes commonly demonstrate a power law function (Adamic, Lukose, Puniyani, & Huberman, 2001; Barabási & Albert, 1999) wherein few nodes have many ties, while most nodes have few ties. Networks with this unequal distribution have a few, densely packed hub patterns centered on high degree nodes; these actors are identified as central in that many of the relationships, communications, and exchanges within a network involve them. Organizational research has demonstrated that the centrality of an actor’s position within a given network is associated with power and influence (Brass & Burkhardt, 1992; Ibarra & Andrews, 1993). Actors within the overlapping networks occurring within an organization enjoy levels of support and influence that are commensurate with their level of strategic, or central, positioning.

Central positioning in the workflow interactions between individuals facilitates the flow of inputs and outputs in support of organizational goals. A central individual in this network would be invaluable to supporting their own job effectiveness as well as that of others, and be invested with authority and status (Burt, 1992). Communication centrality provides access to diverse and non-redundant information about organizational shifts and trends; a central communication figure could hold and strategically share information about project initiatives, promotion opportunities, and other organizational happenings (Brass, 1984). Central positions in a friendship network are associated with trust and could lead to coalition formation; a central friend to many would realize greater backing for their own ideas (Krackhardt, 1992). These patterns of relationships are interrelated in an organizational context, given that they often work in conjunction with each other to provide information or other resources to the individual (Brass et al., 2004). Understanding the influence that central people wield within their networks requires an understanding of the patterns of connections that represent their position.

Degree centrality

A variety of different structural patterns have been proposed to distinguish central individuals and their comparative levels of influence (e.g., betweenness, closeness, eigenvector; Bonacich, 1987; Freeman, 1979; Friedkin, 1991). The simplest form of centrality is known as *degree centrality*, which is defined as the extent to which an actor has a greater number of connections than others in this same social network (Wasserman & Faust, 1994). This idea is further delineated by the direction of the relationship ties connecting actors (i.e., whether one indicates many others as connections, or is indicated by many others). An actor who sends many ties is said to have *out-degree centrality*

(Borgatti, Everett, & Johnson, 2013). A high level of activity emanating from a node may indicate that the individual spreads their views and opinions widely throughout the network (Hanneman & Riddle, 2005). By contrast, an actor who is selected by many others is said to have high *in-degree centrality*, which can also be conceptualized in terms of “popularity” (Borgatti et al., 2013). In-degree centrality is highly associated with power; the more people who turn to the actor for information, the more nonredundant resources (e.g., information) the actor has available (Knoke & Burt, 1983).

In either conceptualization of network positioning (i.e., out- or in-degree) the central individual enjoys strategic organizational advantages as the focal point for the transmission and/or reception of organizationally relevant resources (e.g., workflow, information). Extant research on the antecedents of network formation focuses primarily on homophily (i.e., the idea that similarity breeds connection – Brass, 1985; Ibarra, 1992) or demographic characteristics of the individuals in relation to others of the network of interest (Lincoln & Miller, 1979). Comparatively, little coverage is afforded to the psychological characteristics of the individuals maintaining these dense and strategic social networks (e.g., Klein et al., 2004; Mehra et al., 2001). As mentioned previously, *political skill* may help to fill in this gap (Ferris et al., 2007). Given that politically skilled individuals demonstrate greater effectiveness in understanding, and responding appropriately to, social information at work, political skill is expected here to be an important characteristic of central actors in organizational social networks.

Political Skill

Political skill is a multidimensional social competence construct that describes an individual’s ability to understand the political landscape of an organization and the

people within it, then use this understanding to influence others, achieve desired personal goals, and affect organizational outcomes. The effectiveness of influence tactics and political behaviors is, of course, contingent upon the individual's ability to identify and effectively implement the most appropriate influence strategies for a given social situation. Thus, political skill is conceptualized as "the ability to effectively understand others at work, and to use such knowledge to influence others to act in ways that enhance one's personal and/or organizational objectives," (Ferris et al., 2005, p. 127).

Politically skilled individuals possess a keen understanding of social situations and can more effectively wield influence behaviors to achieve positive outcomes (Kolodinsky, Treadway, & Ferris, 2007; Treadway, Ferris, Duke, Adams, & Thatcher, 2007). Specifically, the effective utilization of influence tactics exhibited by politically skilled individuals is illustrated by its interaction with five impression management behaviors (i.e., intimidation, exemplification, ingratiation, self-promotion, and supplication) which have been shown to be positively related to supervisor ratings when employees have high political skill, but not when they have low political skill (Harris, Kacmar, Zivnuska, & Shaw, 2007).

Political skill also has been associated with a number of organizational outcomes, including job performance (Ferris et al., 2005; Jawahar, Meurs, Ferris, & Hochwarter, 2008; Liu, Ferris, Zinko, Perrewé, Weitz, & Xu, 2007; Semadar, Robins, & Ferris, 2006), promotions, reward recommendations, and job satisfaction (Ferris et al., 2008; Shi, Johnson, Liu, & Wang, 2013), leader and follower effectiveness (Brouer, Douglas, Treadway, & Ferris, 2013; Ewen, Wihler, Blickle, Oerder, Ellen, Douglas, & Ferris, 2013), occupational choice (Kaplan, 2008), and career success (Blickle, Oerder, &

Summers, 2010). For recent reviews of the political skill research literature, see Ferris et al. (2012) and Kimura (in press), and for a recent meta-analysis, see Munyon, Summers, Thompson, and Ferris (in press).

The same understanding of organizational politics that leads to the aforementioned behaviors and outcomes among politically skilled individuals might also lead to strategic positioning within social networks. Specifically, the ability of politically skilled individuals to categorize social cues and influence others in ways that support their goals should result in high activity and, concurrently, high popularity within organizational social networks (Ferris et al., 2007). Indeed, a study examining the effects of political skill revealed a main effect on positioning in influence networks (Treadway, Breland, Williams, Yang, & Shaughnessy, 2011). The present study extends this finding by testing the proposition that the positive relationship of political skill and network positioning extends to workflow, communication, and friendship networks, and for both out- and in-degree centrality¹.

H1: Political skill predicts out-degree centrality and in-degree centrality such that individuals' political skill positively predicts the likelihood of sending workflow (H1a), communication (H1b), and friendship ties (H1c), and receiving workflow (H1d), communication (H1e), and friendship (H1f) ties.

Fully assessing individual connectedness within organizational social networks, however, requires a more thorough investigation of political skill's underlying dimensions. As mentioned, political skill is composed of four facets (i.e., social astuteness, interpersonal influence, apparent sincerity and networking ability), each of

¹ The rest of this manuscript will refer to “activity/sending” and “popularity/receiving” as equivalent terms for degree centrality via the analytic procedure used by this study. See Analytic Procedure section for details.

which is expected to be a nontrivial predictor of various organizational outcomes (Ferris et al., 2007). Thus far, however, there has been a lack of a clear and precise articulation of how the dimensions of political skill may be related separately, or in conjunction with each other, to particular individual or organizational outcomes. For this reason, Ferris et al. (2012) highlighted research and theory development on the specific dimensions of political skill as the top research need for this construct.

This multidimensional conceptualization lends itself to the examination of political skill from a variety of behavioral perspectives, ranging from passive (e.g., understanding of social interactions and individuals therein) to active (e.g., directly influencing patterns of influence and information flow). Those high on political skill are expected to possess these capabilities, and are thus optimally equipped for successful and strategic social network development. Thus, all facets of political skill are expected to influence centrality (i.e., relational patterning) within each of the network types under study. The present study uses social network analysis to examine this proposition.

Social Astuteness

The *social astuteness* dimension of political skill refers to an individual's ability to "understand social interactions well and accurately interpret their behavior and the behavior of others," (Ferris et al., 2007, p. 293). Those who are more socially astute have a high capacity for identifying and interpreting relevant cues in social interactions, and referencing them against their goals for the interaction. In terms of workflow relationships, highly socially astute individuals better understand who holds needed resources for task performance, and the best ways to go about encouraging those individuals to share those resources. This understanding similarly contributes to

effectiveness in building communication relationships; individuals can a) correctly identify the types of information that are the most important/useful, b) connect with those who have more and more useful information, and c) exercise appropriate discretion in sharing information. Additionally, socially astute individuals better understand the interests and perspectives of influential individuals within an organization, and are thus better equipped to strategically target potential friendships. Previous research has related higher levels of social astuteness to higher ratings of job performance (Ferris et al., 2005) and higher hierarchical positioning (Ferris et al., 2008). It is expected, then, that social astuteness is related to high activity (i.e., sending ties) and popularity (i.e., receiving ties) in all three organizational networks.

H2: Individuals' social astuteness positively predicts the likelihood of sending workflow (H2a), communication (H2b), and friendship (H2c) ties, and receiving workflow (H2d), communication (H2e), and friendship (H2f) ties.

Interpersonal Influence

Interpersonal influence reflects one's "unassuming and convincing personal style...[enabling] people to adapt and calibrate their behavior to different situations to elicit the desired responses from others," (Ferris et al., 2007, p. 293). In any given social interaction, interpersonal influence reflects the process where politically skilled individuals effectively access, select, and enact the response that will allow them to achieve their social goals. In terms of workflow relationships, individuals with high interpersonal influence are able to persuade others to share otherwise inaccessible resources with them, and to strategically share those resources with others in ways that garner power and influence. In much the same way, highly influential individuals will

also manage communication relationships to acquire, manage, control, and share valued information. In friendship networks, interpersonal influence will describe the extent to which the individual is able to leverage their friendships to persuade others to grant favors and support their goals. Previous research has shown that a leader's interpersonal influence inspires effectiveness among work units that leads to higher ratings of unit performance (Douglas & Ammeter, 2004). An individual exhibiting this capacity for influencing others will be extremely active, and thus, popular in all of the organizational networks.

H3: Individuals' interpersonal influence positively predicts the likelihood of sending workflow (H3a), communication (H3b), and friendship (H3c) ties, and receiving workflow (H3d), communication (H3e), and friendship (H3f) ties.

Apparent Sincerity

Politically skilled individuals are characterized by *apparent sincerity*—they put on an authentic, genuine appearance (Ferris et al., 2007). This discreet and unassuming personal style is the result of an expertly chosen and enacted social response which inspires trust in others. Sincerity, and thus, trust, in workflow relationships permits the individual access to resources from those who are not otherwise obligated or inclined to assist with work efforts. In communication-laden relationships, sincerity inspires trust that sharing of information would be for the benefit of the sharer or the organization as a whole, not just for the politically skilled individual's self-interest. Friendships build from authentic interaction of shared interests between individuals (Byrne, 1961; 1971), thus, apparent sincerity contributes to this process. Apparent sincerity is associated with hierarchical positioning (Ferris et al., 2008), therefore, it is likely related with central

positioning in organizational networks. Apparent sincerity, then, will be related to high activity and popularity in all three networks of interest.

H4: Individuals' apparent sincerity positively predicts the likelihood of sending workflow (H4a), communication (H4b), and friendship (H4c) ties, and receiving workflow (H4d), communication (H4e), and friendship (H4f) ties.

Networking Ability

The *networking ability* dimension of political skill refers to an individual's ability to readily develop potentially beneficial relationships with a wide variety of others (Ferris et al., 2007). Individuals with networking ability are effective in building all types of relationships; their connectedness is the result of repeated successful social interactions across multiple people. In workflow relationships, individuals with high networking ability can easily build lasting, productive connections to others who might help them obtain task-relevant resources and place them in a strategic position for task exchanges. Similarly, a high ability to build relationships in communication networks will allow the individual access to a diverse array of critical or otherwise useful information, which can be used to their advantage. An individual successful at networking will also build more and higher quality friendships with others. Networking ability has been previously shown to be an important predictor of hierarchical position (Ferris et al., 2008) and leader performance (Douglas & Ammeter, 2004). Thus, it is expected that networking ability is related to high activity and popularity in all three organizational networks.

H5: Individuals' networking ability positively predicts the likelihood of sending workflow (H5a), communication (H5b), and friendship (H5c) ties, and receiving workflow (H5d), communication (H5e), and friendship (H5f) ties.

CHAPTER 2

METHOD

Procedure

All 244 employees of a southeastern university's information technology department were contacted by email and invited to participate in two online surveys. Each survey was available for three weeks for participants to take at their leisure, separated by a one-week break. For the first survey, participants supplied data on their social network relationships. For the second survey, participants responded to individual differences, demographic, and occupational questions. Participation was explicitly noted as voluntary and confidential for all employees.

Participants

In all, 186 employees completed the first survey, 158 employees completed the second survey, and 141 employees (57.8%) provided complete data on both surveys. The final sample was 65% male, with a mean age of 45.77.

Materials

Social Networks

Social network data were collected with the first survey. All participants responded to questions regarding their workflow, communication, and friendship relationships using the "roster method." Respondents were provided with a list of all employees, organized by department and workgroup, and asked to indicate those colleagues with whom they were acquainted. This initial question reduced the response burden for the remaining questions because participants only responded to questions regarding their specific relationships (i.e., workflow, communication, friendship) based

on the subset of colleagues they personally knew. Respondents were allowed to choose as many contacts as they deemed appropriate (i.e., as many as they personally knew), which has been shown to minimize measurement error in the network data (Holland & Leinhardt, 1973). On average, participants indicated that they had 51.17 acquaintances (SD 29.15, Min = 2, Max = 139).

Workflow Network

Participants were asked to indicate which colleagues (from the subset of those they previously indicated knowing) they considered “workflow contacts,” defined as: “people who provide you with your workflow inputs taken together with the set of people to whom you provide your workflow output.” For clarification, workflow input was defined as: “any materials, information, clients, etc. that you must acquire in order to do your job,” and workflow output was defined as: “the work that you send to someone else when your job is complete.” (Mehra et al., 2001, p. 130). Workflow input and output contacts were combined into a single questionnaire for parsimony because prior research has determined that there are no differences in predictive capacity of either set of contacts (Brass, 1984, Mehra et al., 2001). On average, participants indicated that they had 28.45 workflow contacts (SD = 22.90, Min = 0, Max = 105).

Communication Network

Participants were asked to indicate which colleagues they considered communication contacts. Communication contacts were defined as: “people with whom you talk frequently about work-related topics” (Brass, 1984, p. 526). On average, participants indicated that they had 20.75 communication contacts (SD = 18.95, Min = 0, Max = 94).

Friendship Network

Participants were asked to indicate which colleagues they considered to be friends. Friends were defined as: “people with whom you like to spend your free time, people you have been with most often for informal social activities” (Mehra et al., 2001, p. 130). On average, participants indicated that they had 4.62 friends ($SD = 6.42$ Min = 0, Max = 33).

The three networks were moderately related to one another. A QAP analysis shows workflow and communication are related 0.52², workflow and friendship are related 0.12, and communication and friendship are related 0.18.

Attributes

Individual differences, demographic, and occupational data were collected both from the second survey and occupational records. A political skill scale was used to measure the focal predictor variables, and organizational level and tenure were used as control variables. See Table 1 for the descriptive statistics of these variables.

Political Skill

Political skill was measured with the Political Skill Inventory (PSI; Ferris et al., 2005). This instrument consists of 18 items on which respondents are asked to indicate the extent of their agreement on a 7-point Likert-type scale (1=strongly disagree, 7=strongly agree). Scales generate a composite score as well as scores for the four dimensions of political skill: networking ability (example item: “At work, I know a lot of important people and am well connected,”), apparent sincerity (example item: “When communicating with others, I try to be genuine in what I say and do,”), social astuteness

² Results presented here are Jaccard coefficients. The Jaccard coefficient is considered to be a standard measure when dealing with binary relations for both matrices (Hanneman & Riddle, 2005).

Table 1
Attribute Variables Descriptive Statistics

	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>	<i>Skew</i>	<i>Reliability (α)</i>
<i>Political Skill</i>						
Political Skill Composite	5.28	0.82	2.67	6.89	-0.45	0.93
Networking Ability	4.81	1.14	1.33	6.83	-0.57	0.90
Interpersonal Influence	5.64	0.82	3.00	7.00	-0.62	0.83
Social Astuteness	5.02	1.02	2.00	7.00	-0.58	0.84
Apparent Sincerity	6.18	0.74	4.00	7.00	-1.05	0.75
<i>Control Variables</i>						
Tenure (years)	11.39	8.27	0.33	33.00		
	<i>Executive</i>		<i>Manager</i>		<i>Employee</i>	
Org. Level (% of sample)	2.9		37.2		59.9	

(example item: “I understand people very well,”), and interpersonal influence (example item: “I am able to communicate easily and effectively with others”).

Control Attributes

The present study controlled for several occupational variables (i.e., organizational level and tenure) that were expected to covary with political skill. These variables represent institutional (i.e., not psychological) differences between individuals contributing to social network popularity. Individuals in higher positions of authority (Lincoln & Miller, 1979) and those who have a long history working in the organization (Krackhardt, 1987) are likely to be natural receivers of ties in organizations. Thus, the threshold for acceptance of political skill’s contribution to popularity is raised above and beyond the effects of these variables.

Organizational Level

Organizational records provided data on the formal organizational level of each of the participants. Participants were coded as follows: 1 = Executive; 2 = Manager; 3 = Employee.

Tenure

Participants indicated the amount of years they had been employed in the department. Participants employed less than a year were asked to express the amount of time in terms of a fraction of a year.

CHAPTER 3

ANALYSIS PROCEDURE

Social Network & Attribute Data

Relational data on workflow, communication, and friendship relationships were arranged in separate $N \times N$ binary matrices. The cell value X_{ij} corresponds to employee i 's reported relationship to employee j , where: 0 = not a relation; 1 = a relation. All possible reported unidirectional relationships of i to j were included in the three matrices. Attribute data for political skill and its facets, organizational level, and tenure were arranged into vectors with values assigned to each employee. The hypotheses regarding in- and out-degree centrality were tested using exponential random graph models via the *statnet* package in R (Handcock et al, 2008). This procedure is described below.

Exponential Random Graph Modeling

Exponential random graph modeling (ERGM; i.e., p^*) is a recent development in the field of social network analysis that enables researchers to better model and predict an observed network (Robins, Pattison, Kalish, & Lusher, 2007). Specifically, social networks are understood to be stochastic, self-organizing systems of relational ties, which have an assumed dependence upon each other (e.g. i 's relation to j depends to an extent on j 's relationship to i). Thus, traditional OLS approaches, which assume independence among observations, are inappropriate for analyzing social network data. ERGM addresses this by fitting a statistical model to an observed social network, accounting for these dependencies, and allowing for inferences regarding the endogenous and exogenous predictors of social network patterning. Hence, ERGM can be used to assess the

statistical likelihood of self-organizing patterns as well as individual (i.e., node) attributes that contribute to the observed network structure (Shumate & Palazzolo, 2010).

Structural (i.e., endogenous) effects represent the core of social network analysis; thus, their inclusion allows for well-established sociological effects (Lusher, Koskinen, & Robins, 2013). At its most basic, a social network model must account for the network's propensity for tie development, represented by a statistic labeled "edges." Another common statistic accounts for "reciprocity," the extent to which edges are mutual. All successive inferences about the network tie development (e.g., node attributes' influences) thus occurs above and beyond the network tendencies, regardless of actors involved, to develop or reject ties, and to reciprocate ties. The models used in the present study account for both of the aforementioned structural effects, as well as for individual attribute effects, described below.

Node attributes are represented as covariate effects (i.e., continuous variables) or factor effects (i.e., categorical variables), which are meant to explain differences in certain nodes' tendencies regarding ties. Node attributes can account for a node's tendency to send ties (i.e., activity), receive ties (i.e., popularity), or send ties to those who match on the selected attribute (i.e., homophily). The five hypotheses were tested by estimating the sender and receiver covariate effects of political skill; in essence, testing whether or not nodes with higher levels of political skill, or its facets, are more active and/or popular within the social network. The control attributes of organizational level and tenure were entered as node factor and covariate receiver effects, to control political skill's receiver effect. Acceptance of hypotheses regarding political skill's popularity

effect, therefore, will account for structural tendencies, politically skilled activity, and other attributes which might otherwise explain popularity.

Model Construction

For each hypothesized relationship, a model was constructed with the aforementioned endogenous and exogenous effects. Models were tested with a Maximum Likelihood Estimation (MLE) approach generated by a Markov Chain Monte Carlo (MCMC) sampling procedure. The MCMC procedure generates successive network graphs in each step by choosing a random pair of nodes, changing the observed tie between them (i.e., present to absent, absent to present) and tests the likelihood of the set of parameter estimates on the newly generated matrix, then accepts or rejects the change. Graphs are thus generated iteratively, taking account only of the present graph arrangement (i.e., previous arrangements are “forgotten”) for estimation purposes, until the specified iteration limit has been reached (Koskinen & Snijders, 2013). Hypotheses for political skill effects are supported if parameter estimates (θ) are significant and positive, indicating that political skill has an effect above and beyond the structural and attribute controls. Odds ratios were calculated and reported for all effects that exceeded $\alpha = .05$ cutoff value. Odds ratios are calculated by taking the exponent of the parameter estimate (i.e., e^θ), and are interpreted as the increasing/decreasing likelihood of the parameter effect for every unit increase in the attribute (Robins & Daraganova, 2013).

CHAPTER 4

RESULTS

Control Variables

Tables 2 through 4 present the results of each model, separated by network type. Estimates and standard errors are reported for each model parameter. Results from the structural and attribute controls are discussed only in the aggregate in this section; the following sections will address hypothesized relationships. Edge parameters in each model were significant and negative, suggesting that social networks had sparse amount of connections. Reciprocity parameters were significant and positive, suggesting that nodes were more likely, in every network to reciprocate ties. These structural parameters increased in magnitude from the workflow, to the communication, to the friendship network, which indicate that the networks get less dense, but more reciprocated, as the relationship content shifts from task exchanges, to information exchanges, to affect and shared interests. Node attribute effects of organizational tenure were significant and positive in each network, but had minimal effects. Organizational level effects were mixed in significance, but mostly negative. This means that managers are less likely in every network to have received any type of tie than executives, and employees are even less likely still.

Political Skill

As stated in the Model Construction section, significant effects are expressed as “odds ratios,” indicating the increasing/decreasing likelihood of the activity/popularity effect for every unit increase in political skill or the relevant facet (Robins & Daraganova, 2013). The sender effects for the political skill composite measure were

Table 2
Workflow Network ERGM Results

Effect	PS_C		PS_SA		PS_II		PS_AS		PS_NA	
	Estimate (S.E.)	Odds Ratio								
<i>Endogenous Controls</i>										
Edge	-1.96*** (0.22)		-1.18*** (0.23)		-1.19*** (0.27)		-1.17*** (0.32)		-2.52*** (0.22)	
Reciprocity	1.39*** (0.06)	4.01	1.39*** (0.07)	4.01	1.38*** (0.06)	3.97	1.41*** (0.08)	4.09	1.35*** (0.07)	3.86
<i>Exogenous Controls</i>										
Manager	-0.22 (0.13)		-0.25* (0.11)	0.77	-0.22 (0.13)		-0.24 (0.13)		-0.20 (0.13)	
Employee	-0.48*** (0.13)	0.62	-0.52*** (0.13)	0.59	-0.51*** (0.13)	0.60	-0.53*** (0.14)	0.59	-0.46*** (0.14)	0.63
Tenure	0.01*** (0.00)	1.01	0.01** (0.00)	1.01	0.01** (0.00)	1.01	0.01** (0.00)	1.01	0.01*** (0.00)	1.01
<i>PS Covariates</i>										
PS_C Activity	0.09** (0.03)	1.09								
PS_C Popularity	0.01 (0.02)									
PS_SA Activity			-0.06** (0.02)	0.94						
PS_SA Popularity			0.01 (0.02)							
PS_II Activity					-0.03 (0.03)					
PS_II Popularity					-0.01 (0.02)					
PS_AS Activity							0.02 (0.04)			
PS_AS Popularity							-0.07* (0.03)	0.93		
PS_NA Activity									0.19*** (0.02)	1.21
PS_NA Popularity									0.02 (0.03)	

Notes. * $p < .05$. ** $p < .01$. *** $p < .001$; PS_C = Political Skill Composite, PS_SA = Social Astuteness, PS_II = Interpersonal Influence, PS_AS = Apparent Sincerity, PS_NA = Networking Ability

significant and positive for all three networks, supporting Hypotheses 1a, 1b, and 1c.

Employees higher in political skill were 1.09 times more likely to be active in the workflow network (see Table 2), 1.39 times more likely to be active in the communication network (see Table 3), and 1.30 times more likely to be active in the friendship network (see Table 4). The receiver effects were not as well supported.

Table 3
Communication Network ERGM Results

Effect	PS C		PS SA		PS II		PS AS		PS NA	
	Estimate (S.E.)	Odds Ratio								
<i>Endogenous Controls</i>										
Edge	-3.44*** (0.25)		-2.31*** (0.19)		-2.67*** (0.24)		-2.56*** (0.38)		-3.59*** (0.24)	
Reciprocity	1.55*** (0.07)	4.71	1.55*** (0.07)	4.71	1.56*** (0.07)	4.76	1.57*** (0.07)		1.50*** (0.08)	4.48
<i>Exogenous Controls</i>										
Manager	-0.26 (0.13)		-0.22 (0.12)		-0.28* (0.12)	0.76	-0.29 (0.15)		-0.20 (0.13)	
Employee	-0.57*** (0.13)	0.56	-0.54*** (0.13)	0.58	-0.59*** (0.13)	0.55	-0.63*** (0.15)	0.53	-0.50*** (0.14)	0.60
Tenure	0.01*** (0.00)	1.01	0.01** (0.00)	1.01	0.01*** (0.00)	1.01	0.01*** (0.00)	1.01	0.01** (0.00)	1.01
<i>PS Covariates</i>										
PS_C Activity	0.33*** (0.03)	1.39								
PS_C Popularity	-0.02 (0.03)									
PS_SA Activity			0.11*** (0.02)	1.12						
PS_SA Popularity			-0.01 (0.02)							
PS_II Activity					0.22*** (0.03)	1.25				
PS_II Popularity					-0.06* (0.02)	0.94				
PS_AS Activity							0.24*** (0.03)	1.27		
PS_AS Popularity							-0.11** (0.04)	0.89		
PS_NA Activity									0.33*** (0.03)	1.39
PS_NA Popularity									0.03 (0.02)	

Notes. * $p < .05$. ** $p < .01$. *** $p < .001$; PS_C = Political Skill Composite, PS_SA = Social Astuteness, PS_II = Interpersonal Influence, PS_AS = Apparent Sincerity, PS_NA = Networking Ability

Specifically, employees higher in political skill were not any more likely to be popular in the workflow or communication networks, but were 1.25 times more likely to be popular in the friendship network (see Table 4), thereby failing to support Hypotheses 1d and 1e, but supporting Hypothesis 1f.

Table 4
Friendship Network ERGM Results

Effect	PS_C		PS_SA		PS_II		PS_AS		PS_NA	
	Estimate (S.E.)	Odds Ratio								
<i>Endogenous Controls</i>										
Edge	-5.72*** (0.50)		-3.69*** (0.34)		-5.56*** (0.51)		-4.98*** (0.53)		-5.61*** (0.37)	
Reciprocity	1.62*** (0.18)	5.05	1.69*** (0.17)	5.42	1.64*** (0.15)	5.16	1.66*** (0.18)	5.26	1.56*** (0.19)	4.76
<i>Exogenous Controls</i>										
Manager	-0.40* (0.20)	0.67	-0.42* (0.19)	0.65	-0.40* (0.20)	0.67	-0.43* (0.19)	0.65	-0.34 (0.22)	
Employee	-0.54** (0.21)	0.58	-0.60** (0.19)	0.54	-0.57** (0.21)	0.56	-0.61*** (0.18)	0.54	-0.46* (0.22)	0.63
Tenure	0.01* (0.00)	1.01	0.01* (0.00)	1.01	0.01** (0.00)	1.01	0.01* (0.00)	1.01	0.01 (0.00)	
<i>PS Covariates</i>										
PS_C Activity	0.26*** (0.06)	1.30								
PS_C Popularity	0.22*** (0.06)	1.25								
PS_SA Activity			0.00 (0.04)							
PS_SA Popularity			0.11* (0.05)	1.11						
PS_II Activity					0.25*** (0.05)	1.28				
PS_II Popularity					0.17** (0.06)	1.19				
PS_AS Activity							0.26*** (0.06)	1.30		
PS_AS Popularity							0.04 (0.06)			
PS_NA Activity									0.28*** (0.04)	1.32
PS_NA Popularity									0.21*** (0.04)	1.23

Notes. * $p < .05$. ** $p < .01$. *** $p < .001$; PS_C = Political Skill Composite, PS_SA = Social Astuteness, PS_II = Interpersonal Influence, PS_AS = Apparent Sincerity, PS_NA = Networking Ability

Social Astuteness

Contrary to the expectation under Hypothesis 2a, the sender effect for social astuteness was significant, but negative for the workflow network. In support of Hypothesis 2b, the sender effect was significant and positive for the communication network. There was no sender effect found in the friendship network. Thus, Hypothesis

2c was not supported. Employees higher in social astuteness were 0.94 times as likely (i.e., less likely) to be active in the workflow network (see Table 2), 1.12 times more likely to be active in the communication network (see Table 3), and no more likely than less socially astute individuals to be active in the friendship network (see Table 4). The receiver effect for social astuteness was only significant in the friendship network, and in the positive direction. Thus, Hypotheses 2d and 2e were not supported, and Hypothesis 2f was supported. Employees higher in social astuteness were not any more likely to be popular in the workflow (see Table 2) or communication networks (see Table 3), and 1.11 times more likely to be popular in the friendship network (see Table 4).

Interpersonal Influence

The sender effect for interpersonal influence was not significant for the workflow network. However, it was positive and significant for the communication and friendship networks. Thus, Hypothesis 3a was not supported, and Hypotheses 3b and 3c were supported. Employees higher in interpersonal influence were no more likely to be active in the workflow network (see Table 2), were 1.25 times more likely to be active in the communication network (see Table 3), and were 1.28 times more likely to be active in the friendship network (see Table 4). The receiver effect for interpersonal influence was not significant in the workflow network, significant but negative in the communication network, and significant and positive in the friendship network. Thus, Hypothesis 3d and 3e were not supported, and Hypothesis 3f was supported. Employees higher in interpersonal influence were not any more likely to be popular in the workflow network (see Table 2), 0.94 times likely to be popular in the communication network (see Table 3), and 1.19 times more likely to be popular in the friendship network (see Table 4).

Apparent Sincerity

The sender effect for apparent sincerity was not significant for the workflow network, but significant and in the positive direction for both the communication and friendship networks. Thus, Hypothesis 4a was not supported, while Hypotheses 4b and 4c were supported. Employees higher in apparent sincerity were no more likely to be active in the workflow network (see Table 2), 1.27 times more likely to be active in the communication network (see Table 3), and 1.30 times more likely to be active in the friendship network (see Table 4). The receiver effect for apparent sincerity was significant and negative for the workflow and communication networks, and not significant for the friendship network. Thus, neither Hypotheses 4d, 4e, nor 4f were supported. Employees higher in apparent sincerity were 0.93 times as likely to be popular in the workflow network (see Table 2), 0.89 times as likely to be popular in the communication network (see Table 3), and not any more likely to be popular in the friendship network (see Table 4).

Networking Ability

The sender effects for networking ability were significant and in the positive direction for all three networks, supporting Hypotheses 5a, 5b, and 5c. Employees higher in networking ability were 1.21 times more likely to be active in the workflow network (see Table 2), 1.39 times more likely to be active in the communication network (see Table 3), and 1.23 times more likely to be active in the friendship network (see Table 4). The receiver effects were not as well supported; networking ability was only significant and in the positive direction for the friendship network. Thus, Hypothesis 5d and 5e were not supported, while Hypothesis 5f was supported. Employees higher in networking

ability were not any more likely to be popular in the workflow (see Table 2) or communication networks (see Table 3). But they were 1.23 times more likely to be popular in the friendship network (see Table 4).

CHAPTER 5

DISCUSSION

As expected, politically skilled individuals were generally more active in their organization's social networks. Across the three networks of interest, political skill was associated with more frequent sending of ties. However, the results are not similarly supportive for receiving ties (i.e., "popularity"). Neither in the workflow nor the communication networks were politically skilled people nominated significantly more than others. Only in the friendship network was political skill associated with higher levels of tie reception.

The differences between the formal workflow and communication networks on the one hand and the informal friendship network on the other suggests that more formally structured networks leave little room for the influence of political skill, or indeed any of its facets, to contribute to higher popularity within the network. There are a number of different ways this finding can be interpreted. First, it could be that an emphasis on reciprocity, and the desire to foster relationships upward (i.e., towards superiors), drive much of the decision of who to connect with in formal networks. This is consistent with a hierarchical pattern of work-relevant communications in organizations: that communication is generally siloed in workgroups and back and forth from employee to supervisor. Only among friendships are these formal structures loosened and people's preferences for interacting with politically skilled people able to be known.

The above interpretation suggests that the high activity observed among politically skilled individuals to foster connections for resources and information was generally in vain. However, this seems inconsistent with the expectation that politically

skill is associated with a keen understanding for organizational politics and the routes to obtaining prominence and influence. There might be an alternative interpretation of politically skilled individuals' high activity: that they act with a purpose, carving a strategic position for themselves with their network of relationships. Politically skilled people might be avoiding being overburdened by popularity associated with centrality in formalized networks. They strategically manage their relationships, actively seeking out others for needed resources and information, and obscuring their own access to the same. In so doing, they avoid being inundated with requests for more work, or more information about organizational developments, and focus on gaining influence through popularity in informal friendship networks. Further study is needed to explore this potential interpretation.

The present study extends findings from Treadway et al. (2011) in that (a) different organizational network relationships were tested (i.e., performance, influence, and advice; to workflow, communication, and friendship), (b) the political skill facets provided additional explanation for the differential effects in each network, and (c) the social network modeling procedures used provide more accurate tests of these ideas by placing them in the context of structural controls as well as individual attribute controls. A major limitation to Treadway et al.'s (2011) conclusions is the use of OLS regression techniques to test hypotheses regarding the relation of political skill to organizational network centrality. The modeling procedures used account properly for dependencies in tested network variables, thereby preventing biased standard errors resulting from regression-based techniques (Borgatti et al., 2013). Political skill researchers are, therefore, encouraged to utilize stochastic social network modeling both for robust

predictions and to longitudinally model political skill's effects on networks (e.g., SIENA; Snijders, van de Bunt, & Steglich, 2010).

Facet-level predictions, by contrast with political skill as a whole, produced mixed and inconsistent results. Social astuteness was related to more activity only in communication-based networks, and more popularity only in friendship networks. Socially astute individuals understand the measure of every social interaction, and, seemingly, only actively pursue influence in seeking out information sources. In other relationships, they prefer passivity. Their popularity among friendship connections suggests that others in the network appreciate an individual who is adept at reading social situations and making others feel understood.

Interpersonal influence had a similar pattern of results in that it was associated with higher activity in communication networks and popularity in friendship networks, with the addition of higher activity in friendship networks. Interpersonally influential individuals, after assessing opportunities for influence, actively pursue contacts in communication and friendship networks. In turn, others are more likely to nominate them as friends, but less likely to nominate them as communication contacts. This suggests that, despite not viewing the individuals in question as fonts of information, the nominators are nonetheless swayed by nominees' adaptable style and well-chosen social responses.

Apparent sincerity could be described as having backfired. Despite apparently sincere individuals' activity in communication and friendship networks, they were not any more popular in any network, and indeed less popular in workflow and communication networks. Interestingly, the more an individual emphasized apparent

sincerity as an important part of how they present themselves in social interactions, the less popular they seemed to become. Reviewing Table 1 indicates that this facet exhibited nontrivial negative skew, with not one person rating himself or herself below the midpoint on the response scale. It would seem, then, that those who tempered their emphasis on apparent sincerity were less likely to be unpopular. Further issues with this subscale are discussed in a subsequent section.

Networking ability was the one facet that was fully consistent with the larger political skill composite measure's associations with high activity in all networks and high popularity only in the friendship network. Individuals with networking ability repeatedly pursue opportunities to connect with a diverse array of individuals, though recognition for these efforts was only given in high friendship popularity. In essence, popularity in the friendship network due to this ability could be interpreted in terms of the *mere exposure effect* (Zajonc, 1968): simply put, the more that an individual with networking ability is active, making connections, the more familiar, and thus, liked, the individual will become. More active networking would seem, then, to be its own reward.

Overall, the present study found support for facet-level predictions of the operation of political skill in a social network. The prediction of the facets upon different at-work relationships suggest that the operation of the facets contribute to strategic, carefully measured activity in most networks, and higher degrees of recognition and influence in informal friendship networks. Though not all predictions were supported, these findings pave the way for further research on the specific ways in which the facets of political skill affect social relationships at work.

Limitations & Future Directions

The present study has several limitations that might inform future studies. First, the relatively low response rate (57.8%) of the sample participants makes it difficult to trust that the observed network pattern reflects the true pattern of relationships in the organization. Similar studies on organizational networks conducted their results on 70% or higher participation rates (e.g., Brass, 1984; Mehra et al., 2001; Treadway et al., 2011). As noted earlier, the true network pattern depends on having all of the individuals' responses. Any nonresponse results in the loss not only of the data related to that node, but also of data from that node indicating other nodes. Thus, important network substructures may be inaccurately represented, and certain individuals' importance may be artificially inflated (Robins, Pattison, & Woolcock, 2004). The addition of other participants' responses might paint a different picture about the influence of political skill in the network.

In addition, it is possible that an Information Technology (IT) department may yield relatively unique effects regarding political skill on network patterning. As noted previously, task and information exchanges may take place largely in siloed workgroups, wherein communications occur mainly between team members and with their direct supervisors. This is corroborated by the lack of support for the effects of political skill in network popularity in the more formalized networks. In other types of organizations, it may be possible that forging relationships with colleagues and accruing responsibility via contacts in workflow and communication networks is critical for job performance/advancement and thus would be highly valued among a different sample of employees. Future research across a variety of organizations might reveal the place of

political skill in so-called “flatter” organizational structures, wherein employees are freer to choose among their colleagues for achieving their task-relevant goals.

Interesting in light of this limitation are the relatively high scores on political skill among respondents. The observed negative skew in all facets suggests that the employees have a highly elevated opinion of their skill in understanding and managing social situations at work, with relatively fewer individuals characterizing themselves as low in political skill. Considering that in the workflow and communication networks, high political skill was associated with activity but not popularity, this might be indicative of socially desirable responding on the political skill measure and/or misperceptions regarding the effectiveness of one’s political skill. Further, the finding that apparent sincerity was associated with activity, but less popularity in most of the networks, suggests that the employees may have misjudged how their attempts at being authentic and genuine were perceived by others. Apparent sincerity in particular has several issues noted by several political skill researchers (Ferris et al, 2008; Kivamura, 2014) including low reliability due to only being comprised of three items, and that apparent sincerity might be more of an outcome rather than a dimension of political skill. With this said, future research would do well to continue to study the dimensions of political skill and their prediction to employee-, team-, and organization-relevant outcomes.

Social network analysis is a particularly fertile area for such research to take place. Not only might researchers of political skill find more compelling results across a larger variety of organizational network types and sizes (e.g., Treadway et al., 2011), the versatility of social network analysis would allow for a large variety of meaningful relationships. The present study concerned itself with only binary relationships (i.e.,

simple acknowledgement of the relation), but social network analysis allows for study of value-laden relationships (e.g., ranking relationships) or of relational behaviors (e.g., email frequency; meetings). Since political skill is primarily a relational attribute, there is a substantial potential for further study.

In turn, the findings regarding political skill and its component facets' contributions to network positioning open up a range of possibilities for individual differences predictions for social network analysis. In particular, the influence of psychological variables has been a critically understudied aspect of social networks (e.g., Klein et al. 2004, Mehra et al. 2001), inviting organizational researchers for a critical opportunity for remediation. New advances in stochastic modeling in social network analysis, which improve not only cross-sectional predictions (e.g., the present study) but also open the door for longitudinal studies, might be particularly attractive for organizational researchers. Combinations of self-organizing patterns in the network in conjunction with individual attributes could paint interesting pictures of social patterning and influence in organizations.

Conclusions

The present study tested the influence of political skill and its facets as predictors of social network positioning in three types of organizational networks. In general, politically skilled individuals were expected to utilize their keen understanding and subtle influence to participate actively in multiple overlapping at-work relationships, which in turn would be associated with high levels of recognition by other members of the networks. The results support the proposition that individuals with higher standing on political skill, particularly those with networking ability, were more active in all three

networks of interest. However, while this activity is also associated with popularity in informal friendship networks, this is not the case for more formalized networks of workflow and communication. The remaining facets of political skill (i.e., interpersonal influence, social astuteness, and apparent sincerity) had mixed results for activity and popularity, but mostly in friendship networks. Based on this pattern of results, it seems that politically skilled individuals make themselves prominent through a high level of networking activity in their social networks, but that this prominence is only recognized by others in less formal networks, where task performance and other critical organizational information is not at stake. This is not to say that politically skilled individuals are not important in social networks. On the contrary, amassing friendships may involve the practice of after-work happy hours and golf outings with the boss, thereby helping employees develop meaningful relationships that have an indirect, yet important, role in attaining influence within organizations.

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