A SOCIAL NETWORK PERSPECTIVE ON TURNOVER INTENTIONS: THE ROLE OF DISTRIBUTIVE JUSTICE AND SOCIAL SUPPORT

SCOTT M. SOLTIS, FILIP AGNEESSENS, ZUZANA SASOVOVA, AND GIUSEPPE (JOE) LABIANCA

Organizations are increasingly concerned about retaining human talent, particularly within knowledge-based industries where turnover is expensive. Our study employs a social network perspective to explore the influence of employees’ formal and informal workplace relationships on their turnover intentions. We do this in a life sciences organization experiencing employee turnover at over twice the rate of the industry average. Drawing on extant work on the effects of distributive justice at work, we argue that employees who are heavily sought out for advice see themselves as being under-rewarded for the time and effort that goes into providing advice, thus increasing turnover intentions. Additionally, we argue that employees see the ability to seek out advice as a form of social support that embeds them into the organization and decreases intention to quit. By exploring the network positions of individuals in the workflow and advice networks, we demonstrate that when employees are either providing advice to someone they are obligated to work with or are able to seek out advice from others who are not required to work with them, the relationship with turnover intentions is most intense. We conclude by discussing contributions to the theory and practice of human resource management.

Keywords: social networks, multiplexity, turnover intentions

Employee turnover is ubiquitous in organizational life, even in the midst of severe economic recessions where jobless rates are higher than normal. It is among the most frequently studied topics in the human resource management literature. Our understanding of what leads to employee turnover and the impacts of that turnover on the organization has increased considerably after decades of research (see Holtom, Mitchell, Lee, & Eberly, 2008; Shaw, 2011, for recent reviews). Turnover often has
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Rather than explore these informal and formal relationships separately, as is the case with most network studies, we examine them jointly to determine where overlapping, multiplex ties do and do not occur. Specifically, we argue that the extent to which a social tie is perceived to be voluntary or required by formal workflows can drastically alter the relationship between giving or receiving advice and turnover intentions. For example, employees giving advice to a coworker even though they do not feel required to do so by the formal workflow design would be interpreted as acts of social support being received by the coworker. Those individuals feeling socially supported might be less apt to want to leave a positive social workplace environment compared to those who are not feeling so supported. Whether or not formal and informal ties are intertwined may also have an effect on the advice giver. Providing advice, particularly to those with whom one feels required to work, takes away from one’s abilities to complete their own tasks and may even reduce the advice giver’s individual performance. The frustration that may be associated with feeling as if one is required to give informal advice, especially if one is not being potential influence of the social structures within which these employees are embedded through their social ties (Griffeth, Hom, & Gaertner, 2000). In contrast, we explore how these informal and formal workplace social ties may be related to turnover intentions. Exploring informal relationships, such as whom one goes to for work-related help or advice, and formal relationships in the organization, such as whom one is required to work with, is important for theoretical and practical reasons. Formal relationships are important theoretically because employees cannot easily avoid them and may have little agency in determining their existence. Informal workplace ties are crucial to understanding how work actually gets done in an organization. Informal ties supplement the formal structures of the organization by providing other avenues to overcome problems that the formal structure cannot handle; without them, organizations would likely grind to a halt (e.g., Morey & Luthans, 1991).

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rewarded for advice giving, might adversely affect how attached one is to the organization.

Our main contribution is to examine the multiple direct and indirect effects of required and voluntary workplace ties on turnover intentions, which allows us to begin to answer calls for greater attention to the role of social networks in turnover (Dess & Shaw, 2001; Holton et al., 2008; Shaw, 2011). We also add greater specificity to the Job Embeddedness Model by exploring the network positions of individuals in the organization’s informal advice network and the required workflow network, and identifying the positions that lead employees to harbor greater or lesser intentions to exit the organization. In terms of those advice-giving relationships that may increase turnover intentions, we explore the possibility that these behaviors are not adequately rewarded and test the mediating effect of employee perceptions of the fairness of rewards in the organization (distributive justice). We examine these relationships in a fast-growing life sciences organization focused on food safety and animal health products driven by research performed by highly skilled knowledge workers. This organization’s continued rapid growth was threatened by a turnover rate over twice the industry average, motivating them to participate in the study and to be concerned about their employees’ advice giving and seeking.

**Social Network Influences on Turnover**

The Job Embeddedness Model suggests that employee turnover is a function of a broad range of concerns, including ties to others, their job’s fit with other aspects of their life, and what they would need to sacrifice if they left (Mitchell et al., 2001). This study’s focus is on the ties—the relationships that an individual has to other people or activities that embed them in the workplace—while controlling for fit and sacrifice. More specifically, we study those ties within the workplace that should have an influence on turnover intentions. While the full JEM includes ties within the workplace and those to family, community, and other external entities, research suggests that those ties internal to the workplace have greater influence on attitudes such as satisfaction or commitment than do external ties (T. W. Lee, Mitchell, Sablynski, Burton, & Holton, 2004). Also, to the extent to which fit and sacrifice are malleable employee attitudes, it stands to reason that ties, and especially internal ties, would be the most crucial portion of the JEM warranting greater attention (Allen, 2006; cf. Felps et al., 2009).²

The few studies that focus on these ties using social network analysis typically take a social capital theory approach (e.g., Coleman, 1990), arguing that ties to other people within the organization provide access to resources that make employees feel more “attached” to the organization. Studies using this social capital approach to turnover (Friedman & Holton, 2002; Krackhardt & Porter, 1986; Moss holder, Settoon, & Henagan, 2005) have examined different types of social ties between employees. The seminal study by Krackhardt and Porter (1986) explored communication ties between employees at a fast-food restaurant. This study found that turnover occurred in clusters of employees who communicated together intensively and who occupied similar structural positions (patterns of ties to similar others). Mossholder et al. (2005) found that employees who were more central in informal networks were less likely to turn over. They defined central individuals as those to whom others reported having either many social communication ties or work-related advice ties. Friedman and Holton (2002) studied how membership in minority “network groups” provides social capital and support, which reduces turnover intentions.

Our study likewise explores how ties to employees affect an individual’s intention to turn over, but it differs from previous work in several key ways. Whereas Krackhardt and
Porter (1986) focused on the similarity of structural positions, we instead focus on the content of an employee’s ties (i.e., whether they are formally required by the organization or voluntary advice ties), as well as the extent to which those ties do or do not overlap for individuals. Additionally, in contrast to Mossholder et al.’s (2005) research, we explore two specific types of work-related ties (required workflow and advice giving/seeking) to understand whether multiplexity in the relationship (the overlap or lack of overlap between workflow and advice ties with the same coworkers) is related to turnover intentions. Our work also differs from the Friedman and Holtom (2002) study in that we are not examining network or identity groups, but rather each individual’s personal network as it is embedded in the overall organizational social network.

The manner in which the concept of links was examined initially in the JEM has tended to be a bit vague in comparison to social network approaches. For example, Felps et al. (2009) operationalized it as the average embeddedness among an individual’s coworkers in a particular department, while Mitchell et al. (2001) asked individuals about their informal relationships in the workplace, including items such as “How long have you been in your present position?” “How long have you worked in the industry?” and “How many work teams are you on?” which are not specifically eliciting social ties.

In contrast, we focus on the specific social links to other employees within the organization in order to isolate their effects (and we will thus employ the traditional social network reference to these links as “ties”). This level of specification enriches the JEM in several ways. First, it challenges the initial notion that more ties equal greater embeddedness and, in turn, lower turnover intentions. Network theory and research pushes us to go beyond the mechanism of “more ties” to explain embeddedness to consider combinations of ties of a certain type when explaining phenomena. This is also in line with recent work by Oldroyd and Morris (2012), who suggest that having too much social capital (obtained through social ties) can become detrimental to an employee. Second, it delineates between multiple types of ties within the workplace accounting for both the informal emergent ties and the more formal, organizationally dictated ties. Finally, we specify two mechanisms by which social ties influence turnover intentions: directly, by providing social support, or indirectly, by influencing perceptions of distributive justice.

Two types of ties should theoretically influence the amount of social support an employee perceives or an employee’s perceptions of distributive justice: those social ties mandated by the organization’s workflows and those that emerge informally through the seeking and providing of advice. We now turn to describing these relationships and the underlying manner in which they might be independently or jointly related to turnover intentions.

**Mandatory Workplace Ties**

In all organizations, employees experience some form of formal interdependence. A cursory glance at an organization chart can give some sense of how many other employees one has reporting to them and how many others one must report to. Going beyond the
organization chart, however, studies of workflow networks directly ask employees questions such as “whom are you required to work with to get your job done” and are therefore potentially able to capture both reporting lines and lateral task interdependencies (e.g., Brass, 1984; Umphress, Labianca, Brass, Kass, & Scholten, 2003). By examining this “workflow network,” we can determine the extent to which individuals perceive that they are required to work with others and, conversely, how many others report a requirement to work with those individuals. This required workflow network reflects how employees interpret the collective desire of an organization’s managers and supervisors to direct the work-related interaction patterns within the workplace context.

**Advice-Seeking Workplace Ties**

No organization can operate only on the formally dictated ties and interactions between employees established by management, because the environment with which the organization deals is often more complex than the workflow network set up to handle it. Voluntary social ties, and particularly advice ties, are a critical source of flexibility and resources that allow tasks to be accomplished and organizations to adapt to changing circumstances rapidly (e.g., Morey & Luthans, 1991). Contemporary organizations, particularly in knowledge-based industries, cannot operate effectively without this voluntary network of ties to help them adapt and maintain their alignment with rapidly changing business environments. In turn, establishing and maintaining these voluntary social ties becomes an important employee capability needed to accomplish their tasks.

In their initial presentation of the JEM, Mitchell and colleagues (2001, p. 1104) suggest that “certain ties may be more important than others.” Advice-seeking relationships should be particularly important in determining the level of support from the organization’s social network experienced by the employee. Individuals actively choose whom they seek out for advice (rather than having it chosen for them by management) and so these relationships should provide support that is strongly perceived and appreciated by the individual. Various streams of literature speak to the importance of access (real or perceived) to others in the workplace to help create social capital (Coleman, 1990), social integration (O’Reilly, Caldwell, & Barnett, 1989), or general embeddedness (Mitchell et al., 2001), which all serve to further tie one to his or her organization. We expect that the more access an individual has to others for advice seeking, the less likely that individual will be to want to leave the organization.

**Hypothesis 1:** An employee’s number of advice-seeking ties will be negatively related to his or her turnover intentions.

To this point in this article, we have introduced the workflow and advice networks of the organization separately, which is typical of social network analysis. Network analysts often discuss and empirically test each type of relationship separately rather than combining or juxtaposing them, although this is clearly not how employees experience their social world in the workplace (e.g., Borgatti, Mehra, Brass, & Labianca, 2009). Increasingly, network researchers are considering how different types of relationships work together (LePine, Methot, Crawford, & Buckman, 2012; Shah, Bendersky, & Waldstrom, 2011). In our context, it is important to consider how both advice giving and advice seeking (and presumably receiving) might be quantitatively different when accompanied or devoid of workflow obligations with those same coworkers.

If an employee is able to seek out advice from coworkers who genuinely want to help, the employee is more likely to feel as if he or she is being done a favor and perceives greater social support (thus harboring lower turnover intentions). Conversely, if an employee seeks out advice from a coworker who is required to work with him/her, it may not be clear if the coworker is providing advice out of a desire to help or an obligation derived from their part of the organization’s workflow. This is not to say that there is no social support gained from having informal advice-seeking ties to those who
are required to work with the seeker. Rather, we argue that the employee might perceive that some of the advice may be given from a sense of obligation due to the required nature of their tie, thus conveying less social support that would serve to embed the employee in the organization. This idea is underscored in Figure 1a, where fictional Employee B seeks advice from two employees who are required to work with him or her and two other employees not required to work with him or her. Employee A, by contrast, is able to seek advice from all four others who are not obligated by workflow ties to provide assistance and is therefore more clearly socially supported in the workplace (since those who are giving the advice are not being required to do so due to their perceived workflow obligations).

This idea is not entirely novel. The literature surrounding extra-role or organizational citizenship behaviors (OCBs) is founded on the idea that such behaviors are beneficial when the behavior is discretionary and not directed by the organization (Organ, 1988). As helping behaviors such as advice giving become part of the job, not only can conceptual and pragmatic confusion occur (Turnipseed & Wilson, 2009), but one would
also expect the organizational benefits of OCB would likely diminish since it is no longer going “above and beyond.” Similarly, if one perceives that someone is giving them work-related help or advice due to a work obligation, the positive psychological benefits of this action (including a potentially enhanced feeling of embeddedness) might be diminished. Social support is most clearly conveyed to the recipient when employees are helped by others who have no obligation to do so.

_Hypothesis 2: The number of advice-seeking ties to employees outside of the required workflow network (voluntary advice-seeking ties) will be negatively related to turnover intentions._

**Advice-Giving Workplace Ties**

One of the main ways in which the notion of social ties in the JEM needs greater nuance is in recognizing that each tie can be a source of both social capital as well as social liability—that is, every tie is not necessarily helpful for each employee (Labianca & Brass, 2006). The underlying assumption of the JEM is that increasing numbers of ties are positive and should decrease turnover intentions to varying extents. However, it may be the case that some specific types of ties could actually lead to increased turnover intentions.

We argue that when employees are highly sought out for advice (that is, they are in the position of being advice givers), they are distracted by the request, must set aside what they are currently working on to consider the request, decide on whether to provide that assistance, actually provide the assistance or turn down the request for assistance, and then switch back to their own tasks (cf. Oldroyd & Morris, 2012). Research into task switching suggests that there is a steep cognitive price to pay when employees are forced to switch often (Mitchell et al., 2001; Waller, 2007). The employee who is in the situation of being asked advice by a large number of people would be more prone to burnout and may become frustrated with an inability to get his or her own work done due to the heightened demands of helping others.

Aside from the frustration that comes from switching tasks, employees who provide a great deal of advice also face cognitive burdens. When employees provide advice to one another, they must go through the process of interpreting the information embedded in the request, consider options to solve the problem, and choose and communicate what route they feel their coworker should take. As one can imagine, there is a great deal of information to be processed, suggesting the potential for an “information overload” that might be detrimental (O’Reilly, 1980; Tushman & Nadler, 1978). Clearly, employees who have important skills will be sought out more than those without those skills. As is suggested by Oldroyd and Morris (2012), these “star employees” who have high human capital (i.e., knowledge, skills, abilities, and performance) will be more heavily sought out in organizational social networks, providing them with access to increased social capital. The downside of this situation is that these star employees might become overloaded with information that, in time, will hurt their performance, increase the likelihood of turnover, and may even negatively impact organizational performance.

_Hypothesis 3a: An employee’s number of advice-giving ties will be positively related to his or her turnover intentions._

The liabilities associated with advice giving would likely be enough to increase turnover intentions directly, but we further suspect that there will be an indirect effect through distributive justice. Advice giving or helping is typically more discreet and unlikely to be noticed by managers, which can lead to a lack of reward for advice giving. In studies of how accurately individuals perceive the networks around them, managers have not fared well, with hierarchical position in the organization either being unrelated to accuracy (Krackhardt, 1990) or even negatively related (Casciaro, Carley, & Krackhardt, 1999). If managers not only frequently miss these behaviors, but also see (and potentially reward) advice and helping that does not actually exist, those employees who take the
time and effort to give advice are likely to feel the organization’s rewards are unjust. Equity theory (Adams, 1965) suggests that when employees are not being adequately rewarded for their efforts relative to others—that is, they perceive distributive injustice—they will take steps to create equity such as reducing effort, attempting to gain more rewards, or exiting the situation to search for something more equitable. With this backdrop, it is not surprising that extant research has shown strong negative effects of distributive justice on withdrawal behaviors and perceptions, suggesting those who perceive that the organization is rewarding unjustly will be more likely to harbor increased turnover intentions (Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

Hypothesis 3b: Distributive justice perceptions will mediate the relationship between an employee’s number of advice-giving ties and his or her turnover intentions.

As was the case with advice seeking, we suspect that the intertwining of advice-giving and required workflow ties may again play an important role in revealing the employee’s turnover intentions. Whereas previously we sought to isolate advice seeking to those who are not required to work with the employee, as this would better represent social support and reduce turnover intentions, for advice giving it is likely that where it overlaps with the required workflow ties, turnover intentions will increase. For example, if an employee were approached for advice by colleagues he or she feels required to work with, the employee would have to oblige these information requests or risk upsetting the required workflow. These formally prescribed, intertwined workflow and advice-giving ties allow no escape from the task-switching costs of having to drop what you are working on to help the other person, and its attendant information overload, burnout, and frustration. This hypothesis is illustrated in Figure 1b, where four others seek both employees out for advice. Employee A does not feel required to work with any of the four employees who seek him or her out for advice, whereas Employee B would feel required to give advice to two through the intertwined ties. These intertwined required advice-giving ties are therefore problematic for several reasons, as outlined earlier.

Hypothesis 4a: An employee’s number of advice-giving ties perceived to be required by the workflow (required advice-giving ties) will be positively related to the employee’s turnover intentions.

While the advice giver might derive some intrinsic satisfaction from helping others, many organizations’ human resources systems are not designed to reward these types of behaviors, even when these advice-giving behaviors might be very time-consuming and distracting from the employee's primary role. Since many organizations preach collaboration but do not adequately reward collaborative behaviors such as providing advice, we argue that those who give advice (particularly when they feel required to do so) will see the organization as low in distributive justice. Distributive justice exists when the goals of management or the organization are aligned with provided outcomes (Deutsch, 1975; Leventhal, 1976). When advice giving becomes perceived to be a required behavior (thus facilitating organizational goals), intrinsic satisfaction is reduced and the need for extrinsic reward becomes greater in order to maintain a just organizational rewards system. Given the propensity for advice-giving behaviors to be overlooked even if they are mandated by the organizational workflow, distributive injustice is likely to increase with increased required advice-giving ties, and should act as a mediator leading to increased turnover intentions.

Hypothesis 4b: Distributive justice will mediate the relationship between the employee’s number of required advice-giving ties and his or her turnover intentions.

Method

Sample, Settings, and Procedure

The data for our study were collected from two divisions of a midsized food and animal
safety product manufacturing company located in two different states in the midwestern United States. A survey was administered including demographic, attitudinal, behavioral, and sociometric (network) items. There were 183 employees in Division One, of which 154 returned usable surveys (a response rate of 84.2 percent). This division also housed the corporate offices for the firm. The second division was a branch office in a different state that housed 99 employees, of which 75 participated fully (a rate of 75.8 percent). This gave us 229 usable surveys for a final overall response rate of 81.2 percent.

The employees were involved in a wide variety of jobs organized mainly in a traditional functional structure that included research and development, manufacturing, warehousing, sales and marketing, and general administration. As a consequence, the organization employed individuals with a broad diversity of educational backgrounds, from high school degrees in areas such as warehousing to PhDs with significant research experience in their R&D department. The organization is a leader in a particular segment of its industry and was strategically pursuing numerous acquisitions in order to maintain its preeminent position, as well as to access the R&D and product capabilities of other smaller firms in its industry. This required it to maintain a tight control over its finances, which also meant that its pay levels were below the industry average, even within their geographic region. This contributed to a turnover rate that at the time of survey administration was at roughly 22 percent, nearly twice the industry average (Culpepper Survey Trends, 2010). The HR systems were designed and maintained by the corporate HR department located in Division One, although there were two HR department members located within Division Two that assisted management and employees with HR-related issues, such as performance appraisals and scheduling. Employees were rewarded based on their manager’s annual performance assessment of their work as individuals, despite the fact that some departments worked interdependently to accomplish their tasks (e.g., R&D, production). The criteria for assessment were fairly vague, and the assessments did not explicitly assess the employees’ interpersonal helping behaviors or other organizational citizenship behaviors.

Independent Variables

All of our independent variables were based on two sociometric questions. To create the workflow network, we presented a list of the names of all employees at the participant’s division, along with the question “Are you required to work directly with this person in order to get your work done (e.g., receiving inputs or providing outputs)?” All the data were input into UCINET VI (Borgatti, Everett, & Freeman, 2002). We aggregated these responses to create a matrix where a “1” exists in a cell if the name in that row reported that they feel as if they are required to work with the name in the column for each branch. Because we were interested in the perceived obligations that may exist when someone reports that they are required to work with someone else, we left our matrix unsymmetrized.

To capture the advice network, we posed the question, “Do you go to this person for work-related advice and knowledge?” followed by a list of names of all the employees in the division. One semantic detail of the wording of this item is of particular importance for our setting. We asked employees who do they go to, rather than who would they go to, as is sometimes done when eliciting an advice network. By asking about the actual and not potential set of employees one seeks out, we have a higher level of certainty that advice is being sought out (and likely given). This is important because if one employee could seek out another (but never does), the employee being sought out would not have any of the frustrations that may come from dealing with requests for giving. We again aggregated these responses to create a matrix where a “1” exists in a cell if the name in that row reported that they go to the name in the column for advice. Advice seeking is an inherently asymmetric construct (i.e., we often seek advice from those who do not seek advice from us), and we were interested.
theoretically in understanding the distinction between advice seeking and advice giving, so we left this matrix unsymmetrized as well. To construct our measures of advice seeking, we summed each individual’s row of the matrix that counts how many others each employee said they go to for advice (technically known as outdegree centrality). For advice giving, we summed each individual’s column that indicates the number of times someone was listed by another employee as someone whom they would seek out for advice (also known as indegree centrality).

To obtain the number of times an advice-seeking tie was not accompanied by a required workflow tie, we combined the two network matrices. Here we were interested in ensuring that the advice-seeking tie was not embedded in a required incoming workflow relationship. We first transposed the workflow network so that a “1” in a row would now indicate that the person in the column reported that they are required to work with the person in the row. We then recoded the advice network so that an advice tie would be represented by a “2” instead of a “1.” Finally, we added the transposed workflow network to the recoded advice network so that a value of “1” in a row would represent the presence of an incoming workflow-only tie, a “2” would represent an advice-seeking-only relationship, and a “3” would indicate that there is an intertwined advice-seeking and a required workflow relationship reported by the advice seeker. We counted all “2s” in each row as the number of advice-seeking ties without any required workflow requirements from the individual giving help and advice. We labeled these advice-seeking ties to employees not required to work with the seeker “voluntary advice-seeking ties” in the tables.

The procedure for computing the presence or absence of advice-giving ties intertwined with required workflow ties again involved combining these two matrices. To measure the number of intertwined required workflow outgoing ties and incoming advice-giving ties overlaps, we employed matrix algebra. We transposed the advice network so that rows would now represent the individuals who were seeking advice from the focal employee. We then added the workflow matrix to the transposed advice network so that a value of “2” in a cell would indicate that the employee listed in the row is both required to work with and is sought out for advice from the employee in the column. We then counted the number of “2s” in each row to act as our measure of advice-giving ties intertwined with a required workflow relationship, and we labeled these “required advice-giving ties.”

Our mediating variable, distributive justice, was adapted from a scale developed by Leventhal (1976). The three items included in our survey were: “Do organizational rewards reflect the effort you have put into your work?” “Are organizational rewards appropriate for the work you have completed?” and “Do organizational rewards reflect what you have contributed to the organization?” The scale had a Cronbach’s alpha of .87.

**Dependent Variable**

We employed the three-item Intention to Turnover scale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). The scale used the following items: “I often think about quitting,” “I will probably look for a new job in the next year,” and “How likely is it that you could find a job with another employer with about the same pay and benefits you now have?” The scale had a Cronbach’s alpha of .66.

**Controls**

Although the primary focus of this study is on the “links” portion of the Job Embeddedness Model, we control for fit by including individuals’ organizational tenure in our analyses. Those who have been in the organization for a longer period should possess greater fit because they would otherwise likely have already exited the organization either voluntarily or involuntarily (Schneider, 1987). Tenure has been shown to have a positive relationship to several types of person–environment fit in meta-analytic research (Kristof-Brown, Zimmerman, & Johnson, 2005). We statistically control for the “sacrifice” portion of the
Those who have been in the organization for a longer period should possess greater fit because they would otherwise likely have already exited the organization either voluntarily or involuntarily.

We controlled for several attitudinal measures that have been shown to be important in predicting turnover intentions. We included a three-item job-satisfaction scale (Cammann et al., 1979; Cronbach’s alpha = .89) and a four-item affective commitment derived from Meyer and Allen (1984) with a Cronbach’s alpha = .80. Finally, we included a four-item self-reported measure of interpersonal organizational citizenship behaviors (OCBs) based on K. Lee and Allen (2002) to act as a proxy for how much time an individual spends at work helping others in order to isolate the effects of advice giving and receiving more specifically. The items used in our survey were “Help others who have been absent,” “Willingly give your time to help others who have work-related problems,” “Adjust your work schedule to accommodate other employees’ requests for time off,” and “Go out of the way to help newer employees feel welcome in the work group.” The OCBI scale’s Cronbach’s alpha was .71.

Results
Table I presents the means, standard deviations, and correlations among all variables. As expected, there were strong correlations between our measures of advice seeking/giving and workflow/advice overlaps, with some correlations reaching as high as 0.87. This created some multicollinearity concerns in subsequent regression models. In particular, attempting to place the advice giving and advice seeking in the same model as the multiplex measures created variance inflation factors (VIFs) over 4 in some models and over 8 in others, which were unacceptably high. These issues stem from the large degree of overlap between the two networks and the fact that the multiplex measures are actually subsets of the advice-giving and advice-receiving measures (see the next section, for more details; full models, including all the VIFs are available upon request). We dealt with this by running separate models for hypotheses involving overall numbers of advice-seeking and advice-giving ties and for our two multiplex measures.3 There were also strong negative correlations between the traditional psychometric measures of organizational withdrawal and the intention to turnover (−0.67 and −0.68 for job satisfaction and affective organizational commitment, respectively), as well as between distributive justice and turnover intention. Among the controls, age and tenure were both significantly negatively correlated to turnover intentions.

We used stepwise ordinary least squares (OLS) regression analyses to test our hypotheses. Our analyses included five models. Model 1 included all of our demographic, attitudinal, and behavioral controls. Model 2 included our advice-seeking and advice-giving measures. Model 3 added our mediator, distributive justice. Model 4 included only our controls and our two measures of workflow/advice multiplex ties (voluntary advice-seeking and required advice-giving ties). Finally, Model 5 adds the mediator, distributive justice, to the variables found in Model 4.

Advice-Seeking Workplace Ties
We expected that a higher number of advice-seeking ties would be negatively related to
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Note: **p < .01, *p < .05.
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*Coefficient is significant at the .05 level (two-tailed).
**Coefficient is significant at the .01 level (two-tailed).
***Coefficient is significant at the .001 level (two-tailed).
While the overall number of coworkers an employee seeks out for advice does not impact turnover intentions, the ability to seek advice from coworkers outside of regular required workflow ties decreases turnover intentions. This suggests that other employees’ willingness to engage in purely voluntary helping behaviors (i.e., advice giving) helps bind the focal employee to the organization.

Advice-Giving Workplace Ties

Hypothesis 3a exploring advice giving was supported, as those employees who were heavily sought out for advice were significantly more likely to have higher turnover intentions (Model 2, $b = .15$, $p < .05$). We found similar support for Hypothesis 4a, which suggested that when employees were sought out for advice and these advice ties were intertwined with required workflow relationships, turnover intentions would be higher. This was, indeed, the significant relationship we found between required advice-giving ties and intent to turnover (Model 4, $b = .19$, $p < .01$).

Across these stepwise models, we see that the control variables as a whole explain 56.6 percent of the variance in turnover intentions. Adding network variables directly to these models explains up to 3.8 percent of additional variance in the dependent variable.

All of the results were replicated (albeit with slightly weaker levels of significance) if we used a required workflow network symmetrized on minimum, where both respondents reciprocated a required workflow tie (results available on request from the authors).

If we remove the traditional attitudinal psychometric controls for job satisfaction and organizational commitment, all of which were highly correlated with turnover intentions ($r$ from 0.47–0.68) and were collected at the same time as the turnover intentions, and thus potentially most vulnerable to percept-percept bias (Crampton & Wagner, 1994), the variance explained in the control model drops to 7 percent. Including the network variables in this control model doubles the variance explained to 14 percent (results not shown). We should note, however, that social network measures such as advice seeking might also be somewhat susceptible to percept-percept bias. However, our self-reported measure of advice seeking was not significantly related to turnover intentions, suggesting that this type of bias was less of an issue in our case.

Distributive Justice as a Mediator

We also argued that distributive justice was the mediating factor between advice giving and turnover intentions. As employees take on a greater advice-giving role in the organization, we argued that they would feel that their rewards were not keeping up with the additional effort they were putting in, and their turnover intentions should increase. We tested for the mediating effect of distributive justice on the relationship between the employee’s number of advice-giving ties and turnover intentions using the significance of indirect effects approach (MacKinnon, Fairchild, & Fritz, 2007; Preacher & Hayes, 2004; Shrout & Bolger, 2002). We used both the Sobel test (Sobel, 1982) and bootstrapped confidence intervals (1,000 permutations) around the indirect effect. We found that distributive justice was negatively related to turnover intentions (Figure 2a, Path B: $b = -.14$, $p < .05$). Furthermore, the indirect effect of advice-giving ties on turnover intentions through distributive justice was significant.


<table>
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<tr>
<th>(Constant)</th>
<th>Model 1</th>
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Unstandardized coefficients reported above with standard errors in parentheses.

*Coefficient is significant at the .05 level (two-tailed).

**Coefficient is significant at the .01 level (two-tailed).

***Coefficient is significant at the .001 level (two-tailed).
Our analyses demonstrated that when distributive justice is accounted for as a mediator, advice giving no longer had a significant effect on turnover intentions (Figure 2a, Path C'), suggesting a full mediation effect in support of Hypothesis 3b.

We performed similar tests for the mediating effect of distributive justice on the relationship between advice-giving ties that were intertwined with required workflow relationships and turnover intentions. We found a significant, negative relationship between the employee’s number of required advice ties and his or her perceptions of distributive justice (Figure 2b, Path A: \( b = -0.23, p < .01 \)). Given the previously established negative relationship between distributive justice and turnover intentions, we then tested the indirect effect of advice-giving ties to required work partners. The indirect effect of these particular advice-giving ties on turnover intentions through distributive justice was significant (Sobel \( z = 1.83, p < .05 \); 95% CI around indirect effect: [.0009, .0251]). Our results suggest a partial mediation effect as the number of required advice-giving ties is still significantly related to intent to turn over after distributive justice is accounted for, albeit to a lesser extent (Figure 2b, Paths C and C'), supporting Hypothesis 4b.

In sum, these findings suggest that those who are heavily sought out for advice become overextended, do not perceive themselves to be adequately rewarded by the organization for their extra efforts, and are more likely to intend to leave. This is especially acute when employees are obliged to honor those advice requests because they are coming from employees whom managers are requiring them to work with due to workflow considerations.
Discussion

Our study contributes to current theorizing regarding the turnover process and opens the door to a multitude of possibilities for better integrating social network analysis into studies of turnover intentions. Our main theoretical contribution is to clarify the relationship between social ties and turnover intentions suggested in the Job Embeddedness Model by demonstrating that the mere presence of ties in the workplace will not necessarily deter employees from considering leaving the organization. Rather, some types of ties were beneficial for keeping employees from strongly considering quitting, such as when employees were able to seek advice from others who are not required to work with them. However, we also found situations where too many of certain types of ties actually increase intention to quit. For example, when an employee is being sought out by many others for workplace-related advice, the employee’s turnover intentions rise significantly. This underscores the importance of social ties and demonstrates that operationalizing these ties in a sociometric, network fashion as opposed to the Likert-type scales typically used in JEM studies can provide a great deal more understanding of what leads to turnover intentions.

Another theoretical contribution we offer is in showing the mediating role of distributive justice perceptions. Those employees who are heavily taxed in the informal advice-giving network feel as if they are not being rewarded adequately for these behaviors, as captured by their lower distributive justice scores, which increased their desire to exit the organization. We also found that when employees are informally approached for advice by those whom they would be obligated to help due to mandatory workflow requirements, they are more likely to intend to turn over. This result was only partially mediated by distributive justice, suggesting either a direct effect or the potential for these ties to influence other mediators not included in this study. Future research on the effects of social ties in the JEM should be careful to take a nuanced view of both the content of ties and the social context within which they exist.

Implications for Practice

Our study also provides practical insights to managers who are concerned about turnover. While there is a difference between intent to turnover (what we studied) and actual turnover, meta-analytic research (e.g., Griffeth et al., 2000) has established a clear linkage between intention and behavior suggesting managers should pay attention to this intent. One need not know the intricacies of the informal social structure to be able to implement changes that attempt to accentuate the network features that reduce turnover intentions and reduce those features that lead to increased intent to quit. An important step management can take is to attempt to cultivate extra-workflow informal ties. Employees like being able to get advice from those outside of their formal workflows and do not like when they are forced to give advice to those with whom they work directly. Research by Kaše, Paauwe, and Zupan (2009) suggests that HR practices are able to exert at least some influence on the social structures within organizations where knowledge management is crucial (as is the case in our setting). Facilitating interaction between employees who may not be required to interact could be a place to start trying to create more robust social structures. Establishing many types of informal workplace groups could be fertile ground for the cultivation of extra-workflow informal ties stretching beyond the coworkers with whom they are required to interact (cf. Friedman & Holtom, 2002). Organizational actions such as creating communities of practice, establishing online-mediated knowledge sharing, utilizing mentoring programs, and cross-staffing informal committees are some potential ways to aid in the creation of more robust informal networks.
Another finding that should be of particular interest to managers is that those who are frequently sought out for advice are more likely to consider leaving the organization. The frustration associated with required advice giving may push key employees out of the organization, and it may also be the case that this prominence within the organization can also lead to forces pulling the employee out of the organization (i.e., other firms actively recruiting these employees). Whether it is frustration pushing the individuals toward leaving or social capital creating a market pulling the employee from the organization, the fact that they are considering exiting the organization is troubling due to the losses in both human and social capital. First, if these employees do leave the organization, they take with them their knowledge, which is what made them so sought out by coworkers in the first place. This loss of human capital could be very detrimental to organizational functioning. Additionally, when these employees leave, they leave a gap in the social capital of the organization. Advice-giving/-seeking relationships are not prescribed by the organization, but rather emerge informally over time. When a gap is created in the advice network, it takes time to fill and this could create a reduction in the organization’s efficiency and effectiveness in the interim period.

Ideas for how to avoid these gaps can be seen when exploring ways to reduce information overload. To prevent star employees from burning out when heavily sought out for information, Oldroyd and Morris (2012) suggest organizations take steps to make information search processes more efficient by making the right information easier to access via training or information technology. We suggest that these tactics could also reduce the amount of advice needed to be given within the organization and would therefore weaken the relationship between advice-giving and turnover intentions. Furthermore, if employees still exit the organization after these tactics have been implemented, the detriment should be lessened, as there would be systems in place for new employees to more easily utilize (i.e., an online knowledge repository or a listing of who to call when various problems arise).

Another way to eliminate many of the detriments that emerge from employees being overutilized in the advice network may be to ensure that these behaviors are being adequately monitored and rewarded. Recall that distributive justice mediated the effect of advice giving on turnover intentions. Those giving a great deal of advice did not feel that the organization fairly rewarded their efforts and were more likely to harbor higher turnover intentions. If managers are cognizant of the efforts of their employees in helping coworkers and can provide either formal (pay) or informal (praise) rewards for those who are particularly helpful to their coworkers, the effect on turnover intentions may be diminished or even reversed. This particular organization had no mechanism in place to appraise these behaviors. Potential options to increase managers’ awareness include instituting 360-degree feedback so that they can hear when employees are being helpful in the organization’s social networks and providing managerial training on the effects of employee perceptions of justice (Greenberg, 2004).

**Limitations and Future Research**

Our results suggest that simply looking at the reports of key informants on how many others they go to for advice or taking a cursory glance of organization or process charts might not prove overly enlightening in predicting who is likely to leave. We used in-depth social network analysis to enhance our understanding of the effects of various types of social ties in the workplace. Of the two most straightforward hypotheses regarding advice seeking and giving, we found that only one (advice giving) had a relationship with intent to turnover, a
relationship that was fully mediated by perceptions of distributive justice. It appears that even the significant finding for advice giving only tells part of the story given the complex nature of these relationships. These relationships may be moderated by factors currently not included in the research design such as characteristics of those who are giving or receiving the advice (e.g., whether they are a superior, a subordinate, or a coworker with a similar job). In addition, while we find partial mediation for this result through distributive justice, other factors, such as advice quality, frequency, and complexity, may alter the nature of this relationship, while characteristics of those involved in the specific dyads may alter the strength of these effects. Testing these possibilities would require a more elaborate research design and provide suggestions for future research endeavors in the area of social networks with potential impact in the HRM field.

Our study was cross-sectional in nature and did not allow us to investigate changes in social ties and implications of such churn over time (Oldroyd & Morris, 2012; Sasovova, Mehra, Borgatti, & Schippers, 2010). For instance, we assume that advice-seeking behavior results in an actual advice flow. Perhaps part of network churn in the advice ties (lost advice-seeking ties) can be related to the fact that the person’s problems were not adequately solved or the requests were repeatedly turned down, which may be a reason for turnover. On the other hand, a different part of network churn (new advice-giving ties) may be an indication of an increasing burden on the advisor and, possibly with some delay, lead to an increase in the person’s social status within the organization.

We also had concerns about the low reliability of our measure of the control variable continuance organizational commitment (Cronbach’s alpha = .55). These concerns were partly alleviated due to the fact that we used a widely validated measure developed by Meyer and Allen (1984) and that when rerunning the analyses without this control variable, our pattern of results remained unchanged. Moreover, a relatively low reliability usually means that it becomes increasingly difficult to find any significant relations with other variables, but we find consistent significant effects of this control variable in the predicted direction.

A final limitation is related to the fact that we utilized a single sample in our study that raises concerns about the generalizability of our findings. While we only focused on one organization, the organization we studied contained a diverse array of jobs, ranging from janitorial employees to administrative support staff to research scientists, suggesting some generalizability to our findings. Furthermore, our findings that advice giving increases turnover intentions center on the idea that these behaviors were overlooked and not adequately rewarded by the organization (hence, the mediation through distributive justice). We suspect that since these informal helping behaviors have been shown to be difficult to accurately observe (Casciaro et al., 1999; Krackhardt, 1990), this situation repeats itself in many organizations. Still, replication of our results in other settings, possibly in a very different context in which such behaviors are formally acknowledged and appraised, would greatly bolster the generalizability of our findings.

Our study suggests strongly that the type of social tie (or combination of ties) studied is very important in determining attitudes regarding quitting. We looked at two types of instrumental ties (required workflow ties and advice ties), but this is far from an exhaustive list of the types of ties that might affect turnover intentions. Negative ties (such as interpersonal dislike or conflict) could play a very important role in pushing individuals out of the organization (Labianca & Brass, 2006). Recently, a social network perspective has been applied to positive and negative gossip in organizations (Ellwardt, Labianca, & Wittek, 2012; Grosser, Lopez-Kidwell, & Labianca, 2010), and these studies suggest that particular individuals, including

Replication of our results in other settings, possibly in a very different context in which such behaviors are formally acknowledged and appraised, would greatly bolster the generalizability of our findings.
A longitudinal study that integrates the concept of shocks with a social network perspective on turnover intentions could prove illuminating.

Yet another network lens that could be fruitfully applied to the study of turnover, and that would further elaborate the JEM, would be to extend Krackhardt and Porter’s work (1986) on individual perceptions of networks within organizations. Other work on the cognition of networks has shown that even perceived ties could be real in their consequences (Kilduff & Krackhardt, 1994). It could well be the case that where people perceive themselves as fitting into the social structures of the organization could affect their turnover intentions. This idea would be commensurate with the fit dimension of the JEM, since Mitchell and colleagues (2001, p. 1104) define fit as “an employee’s perceived compatibility or comfort with an organization and with his or her environment” (italics added).

While we utilized the JEM as our primary theoretical lens, our research could also be extended to contribute to the unfolding model of turnover (T. W. Lee & Mitchell, 1994). The unfolding model of turnover suggests that turnover frequently begins with some sort of shock that causes an employee to reevaluate his or her situation. After the shock, the employee begins to consider exiting the organization and takes stock of his or her satisfaction, fit with the organization, and job alternatives. Employees who have a strong social support system within the organization may be insulated from shocks or, when a shock occurs, evaluate their overall situation favorably, both of which result in reduced turnover intentions. Additionally, information frequently travels through informal channels, and so employees who occupy different positions in the informal networks of the organization would have more or less access to information about shocks that may, in turn, influence how the shock information is processed. A longitudinal study that integrates the concept of shocks with a social network perspective on turnover intentions could prove illuminating.

In conclusion, informal social structures exist beyond the formal workflow requirements of a job and play a large role in determining how work gets done (Krackhardt & Hanson, 1993). The human resource management community could be strengthened in research and in practice by better accounting for the informal networks of organizations. Our study spoke to the importance of these ties in networks on the issue of turnover that has been of theoretical and practical significance since the dawn of research and practice in human resource management. The research presented here elaborates the Job Embeddedness Model and shows that the complex interplay between formal and informal social ties influences employee propensity to harbor turnover intentions. Given what we have learned over the decades about the diffusion of attitudes and practices within and between organizations, antecedents to employee performance, and the general complexity of organizational life by employing a social network perspective, we can see that the potential to turn these volumes of research toward HR-specific issues is virtually boundless.

Notes
1. We acknowledge the “Unfolding Model of Turnover” initially developed by T. W. Lee and Mitchell (1994) offers an alternative perspective on the turnover process and discuss implications of our research for this line of inquiry in the discussion section.

2. Although the primary focus of this study is on the “links” portion of the JEM, in our analyses we statistically control for the “sacrifice” portion of the Model by accounting for continuance organizational commitment (Meyer & Allen, 1984). Also, we control for tenure, which if applying Schneider’s (1987) Attraction-Selection-Attrition model would constitute a form of “fit” since those who have been in the organization for longer times should possess greater fit; otherwise they would have
likely exited the organization either voluntarily or involuntarily. Tenure has been shown to have a positive relationship to several types of person–environment fit in meta-analytic research (Kristof-Brown et al., 2005).

3. An alternative way to deal with the multicollinearity issue would have been to construct two additional multiplex measures (required advice-seeking ties and voluntary advice-giving ties). We conducted these analyses (available upon request) and found that our pattern of results was not significantly changed.

4. We recognize that these findings are somewhat contradictory of the findings of Mossholder et al. (2005), but this is likely due to a key difference between that work and the present inquiry. While the network centrality index used in their prior work was measuring indegree, it combined social (communication) and work-related (advice) links, whereas we look solely at work-related ties and examine networks separately and in combination. Also, Mossholder and colleagues were looking at actual turnover, whereas we are exploring turnover intentions. It could well be the case that frustration with unrewarded behaviors in the work-related network can be overcome by strong social relations when it comes to the actual quitting decision. In addition, direct or indirect social ties can help create interpersonal obligations and a better leverage for dealing with work-related resource dependence (Gargiulo, 1993; Gargiulo, Ertug, & Galunic, 2009).

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References


