

©2019

Aleksandra Pustovit

ALL RIGHTS RESERVED

WHOSE ACTIONS SPEAK LOUDER THAN WORDS? THE ROLE OF REFERENTS  
IN THE TURNOVER CONTAGION PROCESS

by

ALEKSANDRA PUSTOVIT

A dissertation submitted to the

School of Graduate Studies

Rutgers, The State University of New Jersey

In partial fulfillment of the requirements

For the degree of

Doctor of Philosophy

Graduate Program in Industrial Relations and Human Resources

Written under the directions of

David G. Allen and Patrick F. McKay

And approved by

---

---

---

---

New Brunswick, New Jersey

May, 2019

## **ABSTRACT OF THE DISSERTATION**

### **WHOSE ACTIONS SPEAK LOUDER THAN WORDS? THE ROLE OF REFERENTS IN THE TURNOVER CONTAGION PROCESS**

By ALEKSANDRA PUSTOVIT

Dissertation Directors:

David G. Allen and Patrick F. McKay

Building on the stream of literature that seeks to better understand the effects turnover has on those who remain with the organization, this manuscript answers calls for understanding the mechanism through which turnover contagion operates and identifying the types of individuals disproportionately responsible for its spread. Delving into human motivations for engaging in imitation and the significance of employment, I identify cues emitted by leavers, and colleagues engaging in Pre-Quitting Behaviors, about the organizational attractiveness as a mechanism responsible for the spread of turnover. I apply Theories of Normative Influence and Social Comparison to identify the types of individuals whose turnover is most consequential.

In a sample of 144 public university newcomers, results suggest that presence of turnover related behaviors among colleagues need not be evidence of contagion. It's not so much the behaviors themselves, but the interpretation of cues behind these behaviors, and whether these cues speak negatively about the organization, that are responsible for the spread of turnover.

## **ACKNOWLEDGMENTS**

I would like to acknowledge my thanks and appreciation for the support of faculty affiliated with Rutgers University. I thank David Allen for believing in my ideas and providing guidance and support throughout his time with Rutgers, and while at Texas Christian University. I thank Patrick McKay for being my steward throughout the doctoral program, and being a source of advice and support. I would like to thank the members of my dissertation committee, Patrick Downes and Dong Liu, for their advice and helpful feedback. I am also grateful to other members of the Rutgers faculty who helped me develop as a scholar and who were there to offer advice and encouragement. Specifically, I would like to thank Jessica Methot, Ingrid Fulmer, Rebecca Kehoe, Joo Han, Sanghee Park, and Michael Sturman.

I thank my parents for making sacrifices to make sure that I get a good education and being supportive of my career decisions. I would like to thank my friends in the doctoral program for providing support, advice, and encouragement. I thank Emily Rosado-Solomon for being a good friend and sticking by me throughout our time in the program. I thank Scott Bentley for advice and encouragement, especially during the critical early years. I also thank Dan Weltmann and Sargam Garg for their friendship and support. Finally, I thank all my friends who believed in me and who were there to listen and show support- Ibraiz Tarique, Vaida Carpenter, Kathleen Krouse, Jill David, Nisha Lalchandani, and Pinar Durmus.

## TABLE OF CONTENTS

<b>Abstract of the Dissertation .....</b>	<b>ii</b>
<b>Acknowledgements.....</b>	<b>iii</b>
<b>Table of Contents.....</b>	<b>iv</b>
<b>List of Tables.....</b>	<b>vi</b>
<b>List of Illustrations.....</b>	<b>vii</b>
<b>Introduction.....</b>	<b>1</b>
<b>Review of Relevant Literature.....</b>	<b>10</b>
Significance of Turnover to Employees and Employers .....	10
The Role of Social Context/Networks in Shaping Employee Behavior....	12
Behavioral Cues/Looking to the Behaviors of Others.....	14
Role of Organizational Actors in the Newcomer Experience.....	16
<b>Theory and Hypothesis Development.....</b>	<b>21</b>
Turnover Contagion: Turnover and Pre-Quitting Behaviors as Behavioral Cues.....	21
Organizational Attractiveness as the Cue Behind Turnover and PQBs....	24
So, Whose Actions Speak Louder? Individual Attributes as Behavioral Cues .....	27
Lateral Comparison.....	32
Upward Comparison.....	33
Frequency of Interaction.....	35
Organizational Knowledge Prior to Entry.....	37

<b>Methods.....</b>	<b>41</b>
Research design.....	41
Sample and Procedures.....	41
Measures.....	44
Analytical Strategy.....	49
Applying NAM to Determine PQB and Turnover Network Influence.....	52
<b>Results.....</b>	<b>56</b>
<b>Discussion.....</b>	<b>75</b>
Theoretical Implications.....	75
Practical Implications.....	76
Limitations and Future Research.....	77
<b>References.....</b>	<b>79</b>
<b>Appendices</b>	
<b>A</b> Wave 1 Survey.....	92
<b>B</b> Wave 2 Survey.....	97

## LIST OF TABLES

<b>Table 1</b> Means, Standard Deviations, and Correlations Pertaining to Turnover Contagion (Figure 1).....	58
<b>Table 2</b> Means, Standard Deviations, and Correlations Pertaining to PQB Contagion (Figure 2).....	60
<b>Table 3</b> Logistic Regression Results Predicting Ego Turnover.....	63
<b>Table 4</b> Hierarchical Regression Results Predicting Ego PQB.....	64
<b>Table 5</b> Direct, Indirect, and Total Effects of PQB Network Influence on Ego PQB .....	67
<b>Table 6</b> Sequential Multiple Regression Analysis Predicting Organizational Attractiveness (Turnover Contagion) .....	71
<b>Table 7</b> Sequential Multiple Regression Analysis Predicting Organizational Attractiveness (PQB Contagion).....	72

## LIST OF ILLUSTRATIONS

<b>Figure 1</b> Hypothesized Model - Turnover Contagion.....	39
<b>Figure 2</b> Hypothesized Model - PQB Contagion.....	40
<b>Figure 3</b> Results of Simple Mediation Predicting Ego PQB.....	68



## INTRODUCTION

Turnover, or why employees choose to voluntarily leave their jobs, is one of the most studied subjects in organizational science, with a history of over 100 years of study (Hom, Lee, Shaw, & Hausknecht, 2017). This long record of study is testament to the importance of employee retention to organizations. In a financial sense, the costs of replacing an employee typically range from 90 to 200% of the leaver's salary (Allen, Bryant, & Vardaman, 2010). Beyond immediate monetary loss, turnover impacts the rest of the organization through ensuing work disruptions and loss of value human capital, which can have a negative effect on organizational performance (Hancock, Allen, Bosco, McDaniel, & Pierce, 2013; Shaw, Gupta, & Delery, 2005). Employee turnover can also have a profoundly negative impact on employees who remain with the organization, contributing to decreased embeddedness, organizational trust, organizational attachment, and increased propensity to turnover, among the stayers (Ballinger, Lehman, Schoorman, 2010; Felps, Mitchell, Hekman, Lee, Holtom, & Harman, 2009; Gardner, Iddekinge, & Hom, 2018, Ng & Feldman, 2013; Shapiro, Hom, Shen, & Agarwal, 2016).

Throughout its long history of study, scholars have taken a number of perspectives that shed light on various aspects of turnover and its effects. Starting with their seminal work, March & Simon (1958) established movement desirability and ease (job satisfaction and perceived job opportunities) as focal determinants of turnover. According to their model, factors that contribute to greater job satisfaction are associated with lower desirability of leaving the organization, while greater availability of positions in the external market that an employee is qualified for and willing to accept is associated with greater perceived ease of movement. Building on job satisfaction and alternative em-

employment options as core explanatory concepts, the next generation of researchers refined and expanded upon the process(es) through which these antecedents impact turnover (e.g., Mobley, 1977; Price, 1977; Mobley, Griffeth, Hand, & Meglino, 1979). In his intermediate linkages model, Mobley (1977) identified a more comprehensive withdrawal process and theorized a linear sequence of events to explain how dissatisfaction evolves into eventual turnover. His model portrays turnover as following this process: dissatisfaction → thoughts of quitting → subjective expected utility (SEU) analysis of the benefits and costs of seeking alternative jobs and turning over → search intentions → evaluation of alternative job offers → comparison of job offers with the present job → intentions to quit (after choosing a job offer) → actual quitting. Price (1977) derived the first content model of turnover, identifying *why*, rather than *how*, employees quit. His model specified workplace antecedents of job satisfaction, such as pay and centralization, with availability of alternative employment moderating the relationship between dissatisfaction and turnover. Price and Mueller (1981, 1986) expanded upon this model by identifying causes external to the workplace, such as kinship responsibilities and occupational professionalism, as playing a role in turnover decisions. In line with the attention given to the importance of job affect as a predictor of turnover in this era, scholars added organizational commitment as an important antecedent of study (Porter, Steers, Mowday, & Boulian, 1974; Steers & Mowday, 1981).

Breaking away from the job satisfaction-turnover paradigm, Lee and Mitchell (1994) proposed the unfolding model of voluntary turnover, which is credited for radically reshaping our understanding of turnover (Holtom, Mitchell, Lee, & Eberly, 2008). The unfolding model introduced the idea of shocks, or jarring events that prompt thoughts of

leaving. The unfolding model also specified four distinct turnover paths, each specifying different motives and processes, that that may lead employees to turnover. Lee and Mitchell's theorizing departed from three fundamental assumptions underlying March and Simon's view-namely, 1) job satisfaction is the principal cause of turnover, 2) dissatisfied employees seek and leave for alternative (better) jobs, and 3) prospective leavers compare alternative employers based on a rational calculation of subjective expected utility (SEUs) (Hom et al., 2017). Lee and Mitchell's departure from traditional assumptions made way for future theorizing that expanded upon their novel perspectives.

Redirecting the conceptual focus from why people leave to why people stay, Mitchell, Holtom, Lee, Sablinski, and Erez (2001) introduced the concept of embeddedness, which captures a broad array of on- and off-the-job contextual factors that keep employees from leaving their organization. Embeddedness is comprised of three facets- 1) links to other people and/or activities, 2) perceptions of fit with one's job, organization, and community, and 3) sacrifices associated with leaving one's job (Mitchell et al., 2001). These three facets of embeddedness highlight the idea that aspects of employees' environments not related to their actual jobs, or their abilities to get a job somewhere else, play a major role in their decisions to stay. Embeddedness has been shown to explain unique variance in turnover beyond job attitudes and perceived job alternatives, and to buffer against the effects of shocks (Burton, Holtom, Sablinski, Mitchell, & Lee, 2010; Jiang, Liu, McKay, Lee, & Mitchell, 2012).

In recent years there has been a growing emphasis on the social determinants of turnover (Ballinger, Cross, Holtom, 2016; Felps et al., 2009; Porter, Woo, Allen, & Keith, in press; Soltis, Brass, & Lepak, 2018; Troster, Parker, van Knippenberg, &

Sahlmuller, in press). While relational considerations, such as attachment and satisfaction with one's colleagues, as well as socially-oriented aspects of embeddedness, such as connections with others and family and community pressures (Maertz & Campion, 2004; Mitchell et al., 2001; Waters & Roach, 1971), have been present in turnover research, turnover research has been examined and conceptualized primarily as a consequence of an individual decision process, with the individual acting in isolation (Pfeffer, 1991; Lee et al., 2017, p.209). An individualistic approach to turnover stands in contrast to the increasingly interconnected and collaborative nature of work in today's economy (Miller & Miller, 2010). Relationships with others, as well as the social context individuals are embedded in, provide opportunities and constrain behavior, shape behavioral norms, and provide a greater context in which one's actions are viewed (Brass, 1995; Johns, 2006; Salancik & Pfeffer, 1978; Ramesh & Gelfand, 2010). An individualistic orientation fails to consider and examine these important influences on one's decision to turnover. Studies that focus on social determinants of turnover examine how one's social network position influences turnover decisions and cognitions (Ballinger et al., 2016; Porter et al., in press; Troster et al., in press; Vardaman, Taylor, Allen, Gondo, & Amis, 2015), the spread of turnover among employees (Felps et al., 2009; Krackhardt & Porter, 1985), as well as the importance of familiar and community obligations in one's turnover decision (Ramesh & Gelfand, 2010).

Another recent trend in the literature is a focus on the impact turnover has on the organization and those who stay behind. This approach stands in sharp contrast to the one traditionally espoused in the turnover literature, where examining predictors of individual turnover has been the objective. Both macro and micro researchers have contributed in

this stream. Researchers have examined the effect collective turnover has on outcomes such as organizational performance, productivity, quality of workgroup and supervisory relations, shared attitudes toward the organization, etc., (Hancock, Allen, Bosco, McDaniel, & Pierce, 2013; Hausknecht & Holwerda, 2013; Heavey, Holwerda, & Hausknecht, 2013). Researchers have also examined the impact leavers have on outcomes such as stayer's embeddedness, organizational trust, attachment to the organization, and subsequent propensity to turnover (Ballinger et al., 2010; Felps et al., 2009; Gardner et al., 2018, Ng & Feldman, 2013; Shapiro et al., 2016, etc). In synergy with the flourishing focus on the social determinants of turnover, much of the research in this domain is relational in nature.

Literature on turnover contagion builds on the streams of inquiry that emphasize social determinants of turnover and the impact colleague turnover has on stayers. Turnover contagion is the increased propensity of employees to leave as a result of colleagues' turnover (Felps et al., 2009; Krackhard & Porter, 1986). Krackhardt and Porter (1986) were the first to explore the idea of turnover contagion, using the term "snowball effect" to portray the idea that individuals in organizations don't turnover randomly or independently of each other, but exhibit an increased propensity to turnover when colleagues quit. Krackhardt and Porter's (1986) contribution lies in both theorizing, and empirically demonstrating, the turnover contagion effect. Felps et al., (2009) expanded upon Krackhardt and Porter's work and coined the term "turnover contagion," suggesting an element of imitation in this phenomenon. Using multilevel analysis, Felps and colleagues (2009) showed that coworkers' job embeddedness and job search behavior explained variance in individual voluntary turnover above and beyond that explained by traditional individual

and group level predictors (job satisfaction, commitment, embeddedness, perceived job alternatives, etc., at both individual and group levels). An important contribution of Felps and colleagues (2009) is the theoretical development of turnover contagion as a phenomenon; originally hypothesized as “turnover itself caus(ing) more turnover,” (Krackhardt and Porter, 1986, p.50), Felps et al.’s conceptualization highlighted that colleague behaviors indicative of imminent turnover can have the same effect. In other words, turnover contagion may begin taking hold before, and potentially without, colleagues actually leaving the organization.

Although literature on turnover contagion is not vast, the existence of the phenomenon is well-established. In fact studies in disciplines outside of management, including communication, marketing, and sociology, have considered and empirically documented the occurrence of turnover contagion, and did so largely independently, without reliance or reference to the management literature (Feeley & Barnett, 1997; Fernandez, Castilla, & Moore, 2000; Sunder, Kumar, Goreczny, & Maurer, 2017). For example, in a study of outcomes associated with hiring new workers via employee referrals, Fernandez et al., (2000) noted that employees who were hired through peer referrals were more likely to turnover if their referrer left than employees whose referrer remained with the organization. In a study of salesperson turnover, Sunder et al., (2017) showed that peer turnover greatly increases turnover probability, with peer effects exerting a stronger influence on turnover than a salesperson’s individual antecedents, such their relative performance and the satisfaction of their customers. Each of these studies examined the phenomenon of turnover contagion without using the term “turnover contagion” or referencing other studies in this domain. A few studies in the management literature also exam-

ined aspects of turnover contagion without explicitly referencing or invoking the concept. For instance, Shapiro et al., (2016) proposed that leader departures often foreshadow higher turnover intentions and lower attachment among subordinates, especially when their LMX with the departing leader was high. Bartunek, Huang, and Walsh (2008) and Wang, Dong, Si, and Dou (2017) aimed to attain a better understanding of the mechanisms behind collective turnover, but also examined aspects pertaining to turnover contagion as part of their inquiry. Turnover contagion studies have been conducted in a siloed manner due to a lack of common vocabulary, which has not been established until 2009 (Felps et al., 2009), as well as the relative recency and novelty of inquiry in this domain. This siloed approach has hampered the accumulation of knowledge on turnover contagion, with establishing and empirically demonstrating the existence of turnover contagion, as opposed to building on the work of others, being the primary aim of many studies.

Due to the novelty of this domain of study, a number of questions about turnover contagion and its effects on the organization remain. There have been several calls in the literature for a greater understanding of how turnover contagion “works,” or the processes and factors responsible for its spread (Lee, Hom, Eberly, Li, & Mitchell, 2017; Rubenstein, Eberly, Lee, & Mitchell, 2018). A related conundrum is whether turnover contagion has a positive or negative effect on those who stay behind. A number of studies demonstrated that turnover contagion is associated with subsequent turnover among stayers (Bartunek et al., 2008; Feeley & Barnett, 1997; Felps et al., 2009; Fernandez et al., 2000; Krackhardt & Porter, 1986; Sunder et al., 2017). On the other hand, a recent meta-analysis by Rubenstein et al., (2018) has shown that colleagues’ turnover might *not* lead

to an increased propensity among individuals to turnover. Krackhardt and Porter (1985) demonstrated that colleague turnover is associated with *higher* commitment and job satisfaction among stayers. The aim of this study is to resolve this tension, and address calls in the literature, by shedding light on the process through which turnover contagion spreads. Understanding *who* is leaving is another factor that may explain the discrepancy in the observed effects of colleagues' turnover on stayers (Rubenstein et al., 2018), as the behaviors of some individuals are more influential than the behaviors of others (Angst, Agarwal, Sambamurthy, & Kelley, 2010; Burt, 1987). With individuals looking to the behaviors of different types of people in different circumstances (Kulik & Ambrose, 1992; Shah, 1998), the questions of how turnover contagion works, and which colleagues contribute most to the process, are inextricably intertwined. Delving into the mechanism behind turnover contagion allows me to build and test theory regarding which types of individuals are most influential in the turnover contagion process. To understand the mechanism behind turnover contagion, I delve into human motivations for engaging in imitation and the significance of employment in today's workplace.

In addition to resolving tension in the literature, this study is positioned to make a practical contribution to the field of management. Due to our limited understanding of turnover contagion as a phenomenon, there is limited guidance available to management regarding how to contain or prevent the spread of turnover among employees. Likened to the spread of an illness (Felps et al., 2009; Lee et al., 2017), turnover contagion is portrayed as a somewhat cryptic, unidentifiable, phenomenon that inflicts organizations. Better understanding the nature of turnover contagion (hereafter referred to as TC), and the



mechanism through which it propagates, can provide us with the knowledge necessary to mitigate its detrimental effects.

## **REVIEW OF RELEVANT LITERATURE**

In this section I delve into the significance of employment in today's workplace and human motivations for engaging in imitation. These two literatures will serve as building blocks for understanding why employees look to imitate the turnover behavior of colleagues.

### **Significance of Turnover to Employees and Employers**

Work is a core activity in society, and is central to individual identity and economic well-being (Kalleberg, 2008). Jobs provide employees with income and benefits they need for their livelihood, and the livelihood of their families, as well as a place in society. A change in the employment relationship between employees and companies has taken place over the past few decades, and is consequential for employee turnover. Following the stable economic times after WWII, the internal labor market system was prevalent (Hollister, 2011). The internal labor market (ILM) provides long-term, stable employment relationship between employees and their employer (Williamson, 1975). This type of a system was characterized by internal promotion, long-term employment, and long-term commitments between employers and workers (Doeringer & Piore, 1971; Bidwell, Briscoe, Fernandez-Mateo, & Sterling, 2013). To reinforce this type of system, firms structure HR practices to reward employees for loyalty and tenure, with eligibility for promotion and higher pensions reserved for more highly tenured employees (Jacoby, 1997). Upon joining an organization at that time, employees could be confident in the security of their employment, as well as the stable income and benefits that employment provided.

Several economic factors resulted in a fundamental change in the employment relationship, bringing long-term, stable employment to a decline (Cappelli, 1999; Osterman, 1999). Starting around 1980, global competition, rapid technological change, and a decline in the power of labor unions increased the need for companies to be flexible and focus on short-term outcomes (Cappelli, 2001; Hollister, 2011). These changes forced organizations to adapt to changing demands by employing practices such as restructuring, downsizing, and outsourcing, largely eroding the long-term commitments between employers and workers that were characteristic of ILMs. As a result, companies no longer guarantee employees long-term employment and reward based on tenure. Instead, employees are left to their own means when they lose a job. As a result, employees are now in charge of their own careers, responsible for finding employment, and developing marketable skills that will allow them the opportunity to find that employment in the external labor market (Arthur & Rousseau, 1996; Hall, 2002). With employees squarely responsible for finding work, it is in their best interest to find employment in an organization that treats them well, provides them with valuable rewards, and offers stable employment. If an employee thinks that a company does not provide him or her with acceptable treatment, rewards, or hope for stable employment, he or she has the option of finding employment in another organization. As working in an organization that does not provide favorable treatment and rewards is a missed opportunity for finding employment in an organization that does, it is in the employee's best interest to stay attuned to, and continuously evaluate, the conditions of his or her present employer. In that vein, employees have a vested interest in staying abreast of conditions in an organization as unfavorable conditions, such as poor productivity and ethical misconduct, may lead companies to turn

to cost cutting methods such as downsizing and outsourcing, which put employees at a risk of losing their jobs, and shouldering the loss of income and benefits associated with job loss (Uchitelle, 2006).

Organizations also have a stake in preventing employee turnover. With employees free to leave the organization at any time to pursue employment with another organization, companies are at risk of losing valuable talent, along with the investments they made in the training and development of those employees (Cascio, 2006; Holtom et al., 2008; Kammeyer-Mueller & Wanberg, 2003). The costs of replacing an employee typically range from 90 to 200% of the leaver's salary (Allen et al., 2010). These costs represent a fraction of the costs an individual's turnover can have on the rest of the organization through work disruptions, decreased embeddedness, organizational trust, attachment to the organization, and increased propensity to turnover, on those employees who remain with the organization (Ballinger et al., 2010; Felps et al., 2009; Gardner et al., 2018; Ng & Feldman, 2013; Shaw et al., 2005; Shapiro et al., 2016).

### **The Role of Social Context/Networks in Shaping Employee Behavior**

Context plays an important role in shaping organizational behavior (Johns, 2006). Broadly, social context provides individuals with cues that shape their attitudes and behaviors through both direct and indirect means (Salancik & Pfeffer, 1978). Social context provides cues indirectly by focusing individuals on certain aspects of their environment, thus making those aspects more salient (Salancik & Pfeffer, 1978). Social context provides individuals with cues directly by offering guidance on what attitudes and behaviors are appropriate in a given situation (Salancik & Pfeffer, 1978). Social context is also known to provide opportunities and constraints on behavior (Borgatti & Foster, 2003;

Johns, 2006). Inevitably, people make social connections at their workplace (Fine, 1986). These connections come to comprise, and define, an individual's social environment in the workplace (Chiaburu & Harrison, 2008; Schneider, 1987).

One way scholars have viewed social interactions, and the workplace social context in which they take place, is through the lens of social networks. Networks are a way of thinking about social systems that focus our attention on the relationships among entities, also called actors, who make up the system (Borgatti, Everett & Johnson, 2013). A social network consists of a set of social actors and the ties among them (Borgatti & Halgin, 2011; Wellman, 1988). Taking the perspective that individual attitudes, perceptions, intentions, and behaviors are a function of the patterns of relational ties among individuals, social network scholars examine how aspects of the social environment, such as the number, type, and pattern of employees' ties, influence individual, team, and organizational outcomes (Borgatti & Halgin, 2011).

Network scholars take two different approaches to how they treat ties and their functions. Most studies approach ties between individuals as "pipes," or conduits or channels through which resources, affect, and information flow (Borgatti & Foster, 2003; Podolny, 2001). The type of network designates the content of exchange between actors in the network. For example, an advice network designates an exchange of work related information, while a friendship network designates the flow of affect, among the individuals in a network. The second approach is to view ties as "prisms" that provide cues through which qualities of network actors can be inferred (Borgatti & Foster, 2003; Podolny, 2001). For example, individuals connected to high ranking officials can be

viewed as having higher influence in an organization than individuals whose networks don't comprise of these types of individuals.

Whereas some studies focus on analyzing and hypothesizing about entire networks (that is, a “complete network”), others focus on examining the unique social contacts of individuals, which are referred to as ego-networks (Borgatti et al., 2013). In contrast to a “complete” network, egocentric studies do not provide an overall description of the social structure within an organization or department. Instead, egocentric studies provide information about how a focal person's (or ego's) unique web of contacts relate to variables at the individual level of analysis (Morrison, 2002; Walker, Wasserman, & Wellman, 1993). Studies that take a network approach, as this study does, focus on two groups of individuals. Focal individuals of interest, the ones whose outcomes are the primary concern of a study, are referred to as “ego(s),” while their ties or connections are referred to as “alter(s)” (Borgatti & Foster, 2003)."

### **Behavioral Cues/Looking to the Behavior of Others**

As discussed earlier, employees' social context shapes their attitudes and behaviors in a number of ways. Of particular interest to this study is how individuals rely on cues in their social context, such as the behavior of their colleagues, to determine an appropriate course of action for themselves (Salancik & Pfeffer, 1978). In this section, I provide a background on how and why humans rely on behavioral cues from their social environment.

Humans have an advanced capacity for observational learning that enables them to expand their knowledge and skills by observing others (Bandura 1986, 1989). Because a great deal of the learning and information that can result from direct experience can al-

so be obtained vicariously by observing the behaviors of others, individuals stand to gain much knowledge by observing the actions of others, as well as the subsequent consequences associated with these types of behavior (Bandura, 1986; Rosenthal & Zimmerman, 1978). Individuals look to learn from the behaviors of others because they have a fundamental motivation to attain an accurate understanding of reality and to behave “correctly” in light of that reality (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1955; Festinger, 1954; Suls & Wills, 1991; Wood, 2000). This propensity is an evolutionary adaptation that has promoted survival over thousands of generations by allowing individuals to take advantage of the hard-won information of others and avoid danger (Bikhchandani, Hirshleifer, & Welsh, 1998; Festinger, 1954). Judging that one is likely to experience similar outcomes for similar courses of action, individuals can determine the correct course of action for themselves by repeating behaviors that result in favorable outcomes, and avoiding those that result in unfavorable outcomes (Bandura, 1989). For example, if employees see their manager criticize a colleague for sharing information with another department, they will learn that such behavior can lead to negative outcomes.

While today it is possible to obtain information through verbal communication, the ability to speak had not evolved until a much later time in the evolution of human development. Prior to that, humans learned about their world through observation, where actions reflect information (Cabane, 2013). As a result, nonverbal communication is hardwired into our brains much deeper than language-processing abilities, and exerts a far greater impact on us as a result (Cabane, 2013). Humans are also very adept at understanding the behaviors of others; the human mind can “read,” and react to, facial expres-

sions in as little as seventeen milliseconds (Li, Zinbarg, Boehm, & Paller, 2003). Thus, humans are both well accustomed to looking to the behaviors of others to learn about their environment, and well equipped to accurately interpret what they are seeing.

Beyond simply repeating, or choosing not to repeat, the actions of others, individuals also engage in abstract modeling to extract rules governing the specific modeled judgements or actions, and then adjust their behaviors to follow the learned rule in ways they see fit (Bandura, 1997). For instance, seeing colleagues express dissatisfaction with the organization may lead individuals to conclude that it is not a good place to work. Subsequently, individuals can follow this rule in a myriad of ways; some may follow suit by expressing dissatisfaction with the organization, others may become less committed and less attached to the organization, while others can quit their job and pursue employment elsewhere.

### **Role of Organizational Actors in the Newcomer Experience**

In the latest integrative review of the current state of turnover research, Hom et al., (2017) advocate consideration of how turnover theories apply differently across different types of employee populations in the spirit of considering special circumstances that would push generation of results and theory than can then be applied more broadly. While TC is a phenomenon that has been documented in a variety of settings, including fast-food restaurants, professional organizations, supermarkets, academic institutions, recreation and hospitality organizations, etc., it is a phenomenon that cannot be readily observed in all contexts. For example, while researchers can be reasonably confident that participants in a given sample possess a range of personalities or vary on organizational satisfaction, and thus be confident that they can reasonably study the effects of these var-



ables on turnover, the propensity to leave a job simply because colleagues are leaving presents a challenge as TC may not be present in a given sample. As it is impossible to study a phenomenon in a sample where it does not occur, it is important to choose a setting where there is a high probability of TC occurrence. In this investigation, I contextualize the study in a newcomer setting for four reasons. Firstly, newcomers face a context of uncertainty and ambiguity, in which people exhibit a natural need and tendency to look to the behavior of others (Degoey, 2000; Festinger, 1954). Secondly, more seasoned colleagues serve as a valuable resource that newcomers turn to for information that will help them make sense of their new environment (Louis, 1980; Liu, Wang, Bamberger, Shi, & Bacharach, 2015; Miller & Jablin, 1991; Morrison, 1993, 2002). Thirdly, turnover is highest among newcomers when compared to more highly tenured employees (Griffeth & Hom, 2001). In this section, I review relevant literature on organizational socialization and the manner in which newcomers seek information from more experienced peers to provide a background that will facilitate understanding of the role of TC in this context.

Organizational socialization is the process by which newcomers transition from being organizational outsiders to being insiders (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). Entering a new organization is a challenging time for newcomers, characterized by uncertainty, novelty, and surprise (Louis, 1980; Van Maanen, 1977). Not only are newcomers unfamiliar with their role and organization, but frequently they may experience reality shock when their former assumptions about people and behaviors are no longer accurate in their new contexts (Hughes, 1958). While organizations also institute formal socialization programs that are aimed at facilitating newcomer adjustment, these are usually more effective in specifying organizational imperatives and task objectives

than providing guidance on how these objectives are to be achieved in the context of ambiguity and uncertainty (Ashforth, Sluss, & Harrison, 2007; Wang et al., 2015). Individuals are particularly influenced by their social context in times of uncertainty and ambiguity, when they are not sure about the appropriate course of action themselves (Degoey, 2000; Festinger, 1954; Tesser, Campbell, & Mickler, 1983). Faced with a context of uncertainty and ambiguity, newcomers are particularly susceptible to influence from their social environment as they seek to make sense of different aspects of their job and organization in order to become better adjusted (Louis, 1980; Morrison, 1993).

Organizational insiders, or more experienced members in the organization, facilitate newcomer adjustment by providing newcomers with valuable information about the performance of job tasks and behavioral norms, and by helping them make sense of their new environment (Fang, Duffy, & Shaw, 2010; Louis, 1980; Liu et al., 2015; Miller & Jablin, 1991, Morrison, 1993; Saks & Ashforth, 1997). Examples of the types of information newcomers may turn to their colleagues for include anything from where the printer is, the boss's preference for presentation formatting, and the type of clothing that is appropriate to wear on Fridays. Some (e.g., Jones, 1986) even go so far as to say that organizational members may more strongly influence newcomers' perceptions of context than the objective characteristics do.

There are two tactics newcomers can engage in to obtain information from organizational insiders: direct inquiry and monitoring (Ashford & Cummings, 1983; Morrison, 1993). Inquiry involves requesting information directly. Monitoring is a covert way of obtaining information by observing others and gauging information by reliance on social cues (Ashford & Cummings, 1983). With monitoring, individuals interpret any action or

lack of action on behalf of their colleagues as a form of feedback (Feldman & Brett, 1983), vicariously observing how they and others are responded to and reinforced (Ashford, 1986; Bandura, 1977). There are different costs and benefits associated with each of these strategies. Through direct inquiry, individuals are typically able to obtain the specific type of information they desire. However, direct inquiry may be associated with social costs, which employees may be reluctant to take (Sproull & Kiesler, 1986; Morrison, 1993). Individuals may refrain from asking for information directly for self-presentation concerns, such as not wanting to appear incompetent, insecure, or annoy the informational target (Anseel, Beatty, Shen & Sackett, 2015; Ashford & Cummings, 1983; Levy, Albright, Cawley, & Williams, 1995; Miller & Jablin, 1991; Morrison & Bies, 1991). Furthermore, direct inquiry may not be an appropriate method for obtaining information that is personal, private, or unfavorable in nature. For instance, prior researchers theorized that individuals may abstain from asking colleagues about areas where they have failed in order to avoid the damage to interpersonal relationships that results from causing embarrassment to one's colleagues (Gong, Wang, Huang, & Cheung, 2017). In the same vein, employees may abstain from asking colleagues for information about performance because colleagues may feel reluctant about disclosing "secrets" to their success (Gong et al., 2017). Given these considerations, colleagues may only feel comfortable sharing information that is personal, private, or unfavorable in nature with those they have developed great trust. Having recently joined the organization, newcomers are not likely to have formed the type of deep trust that would allow them to ask colleagues for this type of sensitive information, or get accurate answers if they venture to ask for it. While minimal costs are associated with the use of monitoring, the information an individual gauges

through monitoring is open to personal interpretation, is less specific, and may be misconstrued (Ashford & Cummings, 1983).

## **THEORY AND HYPOTHESIS DEVELOPMENT**

### **Turnover Contagion: Turnover and Pre-Quitting Behaviors as Behavioral Cues**

As discussed in greater detail in the previous section, individual attitudes and behaviors are adapted from their social context. The social environment provides individuals with social cues through both indirect and direct means (Salancik & Pfeffer, 1978). Social context provides individuals with social cues indirectly by focusing their attention on certain aspects of their environment, thus making them more salient (Salancik & Pfeffer, 1978). In the instance of newcomers, those who have joined an organization are not likely to be thinking about quitting right away. However, witnessing certain behaviors among organizational insiders, such as turnover, is likely to make turnover, and the possibility of their new organization being an unfavorable place of employment, salient in their minds. Social context also provides individuals with cues directly by offering guidance on what attitudes and behaviors are appropriate in a given situation (Salancik & Pfeffer, 1978). Colleagues' exit from the organization is a direct cue that suggests that the current organization is not a favorable place of employment and/or that there are better opportunities available in the external labor market. Having reached the conclusion that leaving the organization is the right thing to do, and being aware of the costs associated with working for a mediocre employer, the logical step for newcomers is to leave the organization, or at least consider leaving the organization, in pursuit of employment elsewhere.

In support of the earlier based logic, studies by Felps et al., 2009 and Krackhardt and Porter (1986) theorized and empirically demonstrated the impact of quitter's turnover on the increased turnover propensities of those who stay behind. Krackhardt and Porter (1986) use the snowball metaphor to portray the idea that individuals in an organization

don't turnover randomly or independently of each other, but exhibit an increased propensity to turnover when their colleagues quit. Felps et al., (2009), use the term "turnover contagion" as a metaphor for the increased propensity of individuals to turnover over as a result of job search behaviors and (lack of) embeddedness among their colleagues.

In addition to leaving the organization, colleagues may exhibit other behaviors that suggest that they are thinking about or getting ready to turnover, known as Pre-Quitting Behaviors (Gardner et al., 2016), which also speak to the unfavorability of employment at a newcomer's current place of work. Recent work suggests that individuals who are about to leave an organization emit behavioral cues that "leak" information about their progression toward and intention to quit (Gardner et al., 2016). PQBs are defined as behavioral changes reflecting progression through the turnover process that (a) observers can notice and (b) are associated with future turnover behavior (Gardner et al., 2016). Examples of PQBs include losing enthusiasm for the mission of the organization and exhibiting less effort and work motivation than is usual. PQBs serve as a useful guide because they provide a greater range of information about organizational attractiveness than actual turnover alone. As mental states, attitudes, and intentions are exhibited in behaviors, PQBs are able to capture the cognitively and affectively complex process of mental states (e.g., desire to stay/leave), attitudes (e.g., job satisfaction), intentions (e.g., intentions to leave or search) and behaviors (e.g., work avoidance, interviewing) that lead to turnover (Gardner et al., 2016, Lee & Mitchell, 1994). Heraldizing a colleagues' progression towards turnover, PQBs are behavioral cues that speak negatively about the attractiveness of employment at a newcomer's current organization prior to the actual occurrence of colleagues' turnover.

PQBs are also useful because they can send cues regarding the attractiveness of employment in one's organization even in instances when colleagues are looking to quit their jobs, but may be constrained from actually doing so by the lack of available and desirable jobs. As mentioned earlier, the quality of an individual's employment and ability to sustain that employment have a great impact on the economic well-being of an employee and his or her family, as well as the individual's place in society (Kalleberg, 2008). As such, employees are not inclined to leave an organization until, and unless, they have some degree of certainty that their next employer is more satisfactory than their current employer. Furthermore, desire to find employment and leave the current organization may not result in an offer if market conditions are unfavorable and there is no demand for their skillset (March & Simon, 1958).

While turnover and PQBs are different types of behaviors, they both act as a cue that speaks to the unfavorability of working for a given employer, and may elicit similar types of responses from a newcomer who is evaluating the organization. Having received cues about the lack of attractiveness of employment with a given organization, a newcomer's response depends on the individual and his or her circumstances. For instance, a newcomer may observe colleague turnover, interpret this to mean that the organization is not a good place to work, and respond by leaving the organization. However, as discussed earlier, most individuals are not able to exit before they find another job, and a job that is more acceptable than the one they currently have. Having reached the conclusion that the current organization is not a good one to work, individuals can also respond by developing the desire to leave or the intention of leaving, which will be evident in their

behavior through the expression of PQBs. Similarly, individuals who have witnessed PQBs may respond either by quitting or by exhibiting PQBs.

A newcomer's propensity to turnover or engage in PQBs upon witnessing these behaviors among colleagues is contingent on the number of colleagues in his or her network who engage in these behaviors (Feeley & Barnett, 1997; Shapiro et al., 2016). The higher the percentage of colleagues in one's network engaging in turnover and PQBs, the stronger the message that this is not an attractive employer. Network influence refers to the influence exerted on a newcomer by the behaviors of colleagues in his or her network (Feeley & Barnett, 1997), with turnover network influence referring to influence exerted by colleagues' turnover behaviors, and PQB network influence referring to influence exerted by colleagues' PQBs.

*Hypothesis 1: There is a positive relationship between turnover network influence and the ego's subsequent propensity to turnover.*

*Hypothesis 2: There is a positive relationship between PQB network influence and the ego's subsequent propensity to display PQBs.*

### **Organizational Attractiveness as the Cue Behind Turnover and PQBs**

Evaluation of organizational attractiveness starts as soon as employment does. By organizational attractiveness, I mean the general sense of whether an organization is a good place to work. Newcomers entering an organization are looking to make sense of their environment, and figure out if their organization is a good place to work (Louis, 1980). As discussed earlier, an individual's livelihood, place in society, and economic well-being are heavily dependent on working for a good employer, and it is the worker's responsibility to find acceptable employment. Even though newcomers based their deci-



sions to join an organization on perceptions of favorable organizational attributes, newcomers are aware that organizations may engage in some degree of false advertising by overemphasizing the positive aspects of the organization, while downplaying the negative aspects of the organization, during the recruiting process (Buckley, Fedor, Veres, Wiese & Carraher, 1998; Milkovich & Boudreau, 1997).

Being free to pursue employment elsewhere, newcomers can quickly act upon perceptions of organizational unattractiveness by leaving the company. Leaving early may be easier for newcomers as they don't have to invest much effort in learning the ropes of their new organization. Furthermore, there may be fewer costs associated with leaving early as employees may not have had the chance to fall into a routine or become embedded in their new organization (Allen, Peltokorpi, & Rubenstein, 2016; Mitchell et al., 2001). Employees are most likely to turnover in the first few months of employment (Griffeth & Hom, 2001), which suggests that employees don't hesitate to leave if they perceive the organization as an unattractive employer.

People direct their attention to stimuli that is relevant to them (i.e., selective perception), which affects how they perceive and process information (Fiske, 1993; Squire, Knowlton, & Musen, 1993). The salience of a given cue determines the importance it is given, and shapes how it is perceived (Ilgen & Feldman, 1983). Looking to evaluate their employer and make sense of their environment, organizational attractiveness is a salient cue for newcomers. With newcomers' reliance on their colleague's behavior for information about their organization (Morrison, 1993), colleague turnover is likely to be perceived as evidence that the current employer is not a good place to work and/or that there are better opportunities available in other organizations. Krackhardt and Porter (1985)'s

findings provide empirical support for employees attributing workplace dissatisfaction to colleagues' turnover.

While information regarding organizational attractiveness is quite valuable, newcomers are not likely to ask about such information directly. As mentioned earlier, individuals typically avoid asking colleagues for information that is personal, private, or unfavorable in nature, unless they have established relationships of great trust (Ashford & Cummings, 1983; Gong et al., 2017). Information regarding whether an individual thinks his or her organization is a good place to work, or whether leaving the organization would be better, can be personal, private or unfavorable in nature. For example, a colleague may not feel comfortable sharing information about being on bad terms with his supervisor, or disclosing that he thinks another employer may be a better place to work because the flexible schedule offered there would allow him to take care of an ailing parent. Not only may asking for these types of details embarrass a colleague, but colleagues may not share accurate details or true opinions when asked to disclose this type of information. Instead, as evidenced by exit interviews, employees typically provide impersonal reasons for leaving, such as dissatisfaction with pay or benefits (Giacalone, Knouse, & Montagliani, 1997). Likewise, an employee, such as a senior manager, who has proprietary information about the company's business operations and future success, may be prohibited from disclosing these details to employees. Being new to an organization, newcomers are not likely to have established the type of deep trust with colleagues that would allow for an accurate exchange of details regarding the attractiveness of employment with their current organization. As such, newcomers are likely to seek this type of information by monitoring.

Being unable to ask for and discuss information about organizational favorability directly, newcomers gather cues which they can rely on to gauge valuable information by observing certain behaviors that may be indicative of colleagues' dissatisfaction with and desire to exit the organization, and base their subsequent actions on that information. Colleague turnover and display of PQBs is an example of a behavior that is a clear indication that the current organization is not a good place to work, and/or that there are better opportunities available elsewhere. Newcomers witnessing colleague turnover and PQBs may respond by turning over, and displaying behaviors indicative of those intentions, in response to the negative messages or cues about organizational favorability that colleagues' behavior speaks to.

*Hypothesis 3: Perceptions of organizational favorability mediate the positive relationship between turnover network influence and the ego's subsequent voluntary turnover.*

*Hypothesis 4: Perceptions of organizational favorability mediate the positive relationship between PQB network influence and the ego's subsequent display of PQBs.*

### **So, Whose Actions Speak Louder? Individual Attributes as Behavioral Cues**

In the management literature, studies have shown that the behavior of some is more influential on individuals' behaviors than that of others (Angst, Agarwal, Sambamurthy, & Kelley, 2010; Burt, 1987; Krackhardt & Porter, 1986). Burt's (1987) study suggests that physicians are more likely to adopt a new drug after physicians who are structurally equivalent to them, or who occupy similar positions to them in the social structure, have adopted the drug. Likewise, Krackhardt and Porter's (1986) study sug-

gests that individuals are more likely to leave organizations when structurally-equivalent coworkers turnover. The study by Angst et al., (2010) shows that hospital managers are more likely to adopt electronic medical records when hospitals that are greater in size and age and are spatially proximal have adopted electronic medical records. While these studies point to some individuals being more influential than others, or the asymmetrical influence of organizational actors, they mostly don't offer theory-derived arguments or explanations for this phenomenon.

I rely on the Dual Process Theory of Normative and Informational Influence (hereafter referred to as Dual Process Theory) to build theory about which types of individuals' behaviors are most consequential for newcomers' turnover. Dual Process Theory establishes that people influence others' behaviors through two main routes: normative and informational (Cialdini & Goldstein, 2004). Empirical research has affirmed the theory in a variety of contexts (Deutsch & Gerard, 1995; Taylor, 1991). Normative social influence is the kind of influence that inspires compliance, or acquiescence to a request in which the target recognizes that he or she is being urged to respond in a certain way (Cialdini & Goldstein, 2004; Cialdini & Trost, 1998). Desire for social approval and/or desire to build or maintain relationships with the requester is the main motive for engaging in compliance. Informational social influence encourages conformity, which is the act of changing one's behavior to match the responses of another or others (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1995). Conformity is an indirect type of social influence in which individuals choose to engage in behavior on their own accord. Desire for informational accuracy is the main motive for engaging in conformity. Operating primarily under conditions of uncertainty, Dual Process theory posits that conformist behavior oc-

curs when individuals turn to referent others for information needed to attain an accurate view of reality and behave correctly in light of that reality (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1995). Thus, individuals operating with the motive of informational accuracy will conform to, and be most influenced by, the behaviors of those they perceive to be the most knowledgeable on a given topic of inquiry.

Informational influence is the type of social influence behind the TC of newcomers. Trying to make sense of their new environment in times of uncertainty and ambiguity, newcomers look to organizational insiders, who are more knowledgeable about the organization (Louis, 1980; Liu et al., 2015; Miller & Jablin, 1991). When looking to make sense of colleague turnover and PQBs and determine the attractiveness of employment with their new organization, newcomers seek to form accurate perceptions of reality. With the question of the employer attractiveness being sensitive in nature, as per earlier theorizing, newcomers monitor for behavioral cues among informational insiders to attain accurate perceptions of organizational attractiveness, and to then base their decision regarding staying with the organization on those cues.

While Dual Process theory posits that individuals turn to referent others when seeking informational accuracy, the theory does not specify who serves as such referents. Dual Process theory points to Social Comparison theory for guidance on determining which referents individuals look to when it comes to conformity (Turner, 1982), with choice of referent being highly situation- and context-specific (Kulik & Ambrose, 1992; Shah, 1998; Turner, 1982). Theory of social comparison provides guidance on determinants of social referent choice.

Social comparison theory posits that people base referent choice on salience (also called relevance) of the referent and availability of referent information (Goodman, 1974; Levine & Moreland, 1987). Salience is a function of different criteria and evaluative outcomes of interest, with individuals comparing themselves to both similar and dissimilar referents (Kulik & Ambrose, 1992; Shah, 1998). The perceived instrumentality of the referent for satisfying the individual's comparison needs determines the salience of a referent (Kulik & Ambrose, 1992). Whom individuals choose to compare themselves to depends, in part, on their motive for engaging in self-evaluation. Individuals have four motives for engaging in social evaluation: self-assessment, self-enhancement, self-verification, and self-improvement (Fiske & Taylor, 1991; Taylor, Neter, & Wayment, 1995). Self-assessment motive refers to the desire to form accurate information about oneself. Self-enhancement refers to the need to achieve and maintain a positive sense of self. Self-verification motive refers to the desire for consistency in self-cognitions. Self-improvement is the desire to get better.

While availability of information about a referent determines referent choice, it is typically redundant with information already provided by referent saliency. Determining relevance of a referent requires that individuals possess information about the referent, and knowing that a given person is a referent encourages individuals to search for more information about those referents (Goodman, 1984; Levine & Moreland, 1987). I do not consider informational availability in the theoretical development of this manuscript because of the reasons cited above, and because the network methodology employed in this study only gathers data from those individuals with whom newcomers interact. Individuals can compare themselves to those who are similar to them (lateral comparison), indi-

viduals who are better than them (upward comparison), and individuals who are worse than them (downward comparison) on the evaluative outcomes of interest (Kulik & Ambrose, 1992). Motive for self-evaluation determines which type of comparison an individual makes. It is possible for more than one self-evaluative motive to be aroused simultaneously (Taylor et al., 1995).

With newcomers seeking to gauge organizational attractiveness, they will turn to and be most influenced by the turnover and PQBs of referents in their network who they believe to have the best information about the general conditions in their new workplace. I posit that newcomers desire self-assessment and self-improvement, and will engage in lateral and upward comparisons, respectively, to form judgments of organizational attractiveness. Self-assessment motives are typically made by comparison with those who are similar to oneself on the outcome of interest. When it comes to newcomers trying to determine the general conditions in the organization they can reasonably expect to experience with greater organizational tenure, they will turn to those who they expect to have organizational experiences similar to their own. However, sometimes, individuals look to others who know more or have greater access to information than they have on a topic of interest (Turner, 1991). Individuals looking to get the optimal information about conditions in an organization will thus be influenced to make an upward comparison, and look to those, and be most influenced by the actions of those they expect to have the best knowledge about organizational conditions. It is important to point out that individuals to whom newcomers are making comparisons to, and are influenced by, may not *actually* have the most accurate or most pertinent information for that newcomer. However, because newcomers are making decisions in a context of uncertainty, and have limited in-

formation about colleagues' actual knowledge, it is the newcomers' *perception* of who has the most pertinent information that will drive their evaluations.

In the remainder of this section I build theory on the types of individuals newcomers look to, and whose turnover and PQBs they are most influenced by, when making lateral and upward comparisons to attain information about organizational attractiveness.

### *Lateral Comparison*

Social comparison literature in general, and particularly in the field of management, focuses on individuals making comparisons to similar others as a default, almost irrespectively of the outcome of interest on which the evaluation is based (for exception, see Shah, 1998). There is good reason for this: similarity between the comparer and referent limits the complexity of comparison (Adams, 1963; Festinger, 1954). Since many factors determine someone's chances of promotion or experience in the organization, looking to those who are similar to us provides the most direct information, with comparison based on similarity acting as a natural control for the myriad factors that affect a given outcome of interest. When it comes to newcomers trying to determine the type of experience they are going to have in an organization they just joined, it is reasonable for them to look to those who they expect to have a similar organizational experience to themselves. I posit that newcomers can expect to have organizational experiences most comparable to those in their network they perceive as similar based on attributes such as demographics (race/ethnicity, sex, and age), skillset/job, etc., with newcomers looking to these individuals for information on the organizational attractiveness of their new employer most. Thus, the turnover and PQBs of colleagues who are similar to them on the aforementioned dimensions will influence newcomers most.



Individuals can perceive similarity with others on a number of dimensions, such as race, sex, marital status, political affiliation, hobbies of interest, job title, department, etc. While some individuals perceive similarity on one of these dimensions, such as race, they may not perceive it based on another dimension of similarity, such as gender. Because individuals identify with different social categories, the category of salience is individually determined (Hogg & Abrams, 1988; Tajfel & Turner, 1979). With this in mind I focus on the ego's perceived similarity with alters, as perceived similarity captures similarity on dimensions that are important to the ego (newcomer). Perceived network<sup>1</sup> similarity refers to the ego's perceived extent of similarity to alters in his or her network.

*Hypothesis 5: Perceived network similarity moderates the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness, such that the relationship is stronger when there is greater similarity in the ego's network.*

*Hypothesis 6: Perceived network similarity moderates the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness, such that the relationship is stronger when there is greater similarity in the ego's network.*

#### *Upward Comparison*

For the purpose of self-improvement, individuals make upward comparisons to those who have access to more or better quality information than they (Collins, 1996;

---

<sup>1</sup> Because this is an ego network study (as opposed to a whole network study), the term 'network' in the hypotheses is referring to the individuals in the ego's network (Ibarra, 1992; Morrison, 2002). For information regarding the distinctions between an ego network and a complete network, please see the section titled "The Role of Social Context/Networks in Shaping Employee Behavior," in Chapter 2.

Helgeson & Michekson, 1995; Taylor et al., 1995). For instance, a C student who is motivated to improve his grades will look to emulate the study habits of an A student precisely because the A student likely employs better study habits than the C student does himself. A C student is not likely to glean information about study habits that will help him improve his grades from another C student, making an upward comparison a more appropriate choice of referent. Upward comparison explains the influence of experts, who we look to because they have more, better, or more credible information at their disposal (Turner, 1991). Thus, individuals looking to make upward comparisons will be more influenced by the behaviors of those who are more knowledgeable than they on the evaluative outcome of interest, which is a phenomenon that has been noted in studies across a range of disciplines (Angst et al., 2010; Hernsberger & Spiller, 2016; Zimmerman & Zeitz, 2002).

Newcomers deciding whether to stay with their current organization or to move to a more favorable one are looking to improve, and are thus likely to make an upward comparison. Considering the gravity of the decision regarding which organization to work for, which can have consequences for a newcomer's livelihood, well-being, and place in society, it is a decision the newcomer will want to base on the best information available. Individuals with high organizational status typically have access to resources such as superior information, knowledge, and expertise (Huberman et al., 2004; Ridgeway, 2014), and come across as more competent and knowledgeable about the most appropriate course of action (Driskell & Mullen, 1990; Ridgeway, 2014). Regarding information about organizational attractiveness, employees of higher organizational status have access to more and better quality information and are likely to be a good choice of

referent. Hierarchical rank is a type of organizational status that signals superior access to information about the organization; an individual's hierarchical position is a determinant of informational availability (Goodman, 1974). Thus, the turnover and PQBs of colleagues who are of higher hierarchical rank than they will exert a stronger influence on newcomers' perceptions of organizational attractiveness. Network status refers to the status of alters in the ego's network.

*Hypothesis 7: Network status of alters who left the organization moderates the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness, such that the relationship becomes stronger when the ego's network is higher in status.*

*Hypothesis 8: Network status of alters who engage in PQBs moderates the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness, such that the relationship becomes stronger when the ego's network is higher in status.*

### **Frequency of Interaction**

In order for individuals to make sense of others' behaviors, these behaviors need to be available for observation (Funder, 1995, 2012). As noted earlier, PQBs are behaviors that observers can notice and typically represent an observation of a change in the behavior of another (Gardner et al., 2017). The PQB scale assesses a colleague's change in behavior from what he or she has exhibited in the past. For instance, all the items in the scale (except for one) speak to a comparison between an individual's typical behavior and the individual's current behavior, with items such as "They have been less interested in pleasing their manager *than usual*," "They have expressed dissatisfaction with their

supervisor more frequently *than usual*.” In order for observers to make judgements about an individual’s change in behavior from what is typical, they need to be familiar with that individual’s typical behavior as well as the changes in their behavior. For instance, simply noticing that a colleague is not interested in pleasing a manager does not constitute a PQB, and may just signal that this colleague is a poor performer. A change to a less favorable behavior constitutes a PQB. Frequency of a newcomer’s interaction with a given colleague determines the extent to which the newcomer can observe these changes in the colleague’s behavior. Frequency of interaction may be particularly relevant for a newcomer’s observation of PQBs as they cannot rely on previous knowledge about a colleague’s behavior and can only gather information about a colleagues’ behavior from the short period of time they have been with the organization. Frequent interaction with a colleague allows both for a higher likelihood of spotting a PQBs, and for the possibility of witnessing a more frequent and wider range of PQB display, thus increasing the influence of this type of behavior on a newcomer’s impression about the organization.

Turnover of colleagues one does not interact frequently with is more difficult to notice and easier to forget. Having limited knowledge of the members on one’s team or in one’s department upon the start of employment, newcomers are more likely to notice the turnover of those insiders they interact more frequently with (Christakis & Fowler, 2007; Shah, 1998).

*Hypothesis 9: Frequency of interaction with colleagues who turnover moderates the negative relationship between turnover network influence and the ego’s perceptions of organizational attractiveness, such that the relationship is stronger when frequency of interaction is higher.*

*Hypothesis 10: Frequency of interaction with colleagues who engage in PQBs moderates the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness, such that the relationship is stronger when frequency of interaction is higher.*

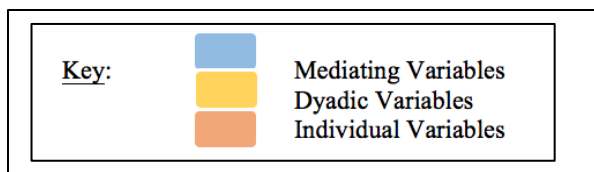
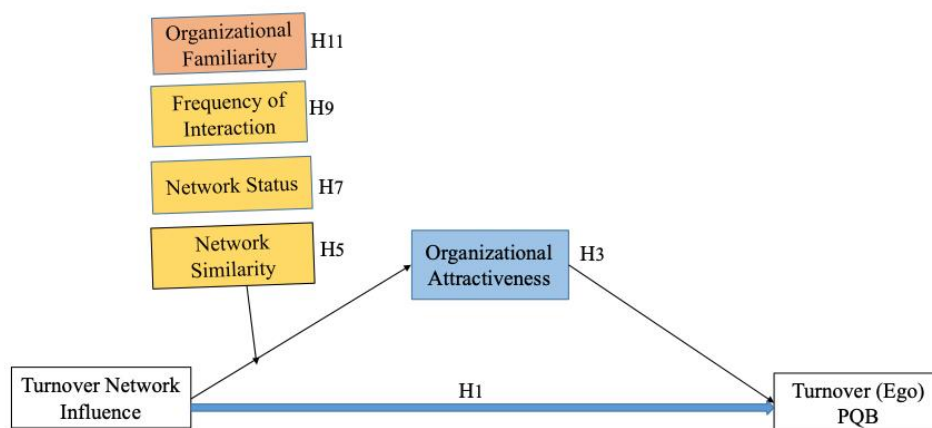
### **Organizational Knowledge Prior to Entry**

While a newcomer's early experience in an organization is characterized by ambiguity and uncertainty (Morrison, 1993), newcomers who had extensive knowledge about the organization prior to entry will have a better understanding of their new environment. While all employees receive information about the organization during the recruiting process, information communicated by organizational insiders who are involved in the recruiting process may be inaccurate and biased in favor of the organization. Newcomers who talked about the organization with organizational insiders informally prior to joining the organization are likely have a better understanding of the organizational environment and experience less uncertainty and ambiguity upon joining the organization. Likewise, newcomers who have worked for the organization in the past will have a better understanding of the organizational environment and experience less uncertainty and ambiguity upon rejoining the organization. Individuals look to the actions of others most in times of uncertainty (Castelli et al., 2001; Salancik & Pfeffer, 1978), but have less of a need to so when they have a solid understanding of a situation themselves. Being less dependent on others to make sense of their new organization, the turnover and PQBs of colleagues will have less influence on newcomers with previous familiarity of an organization.

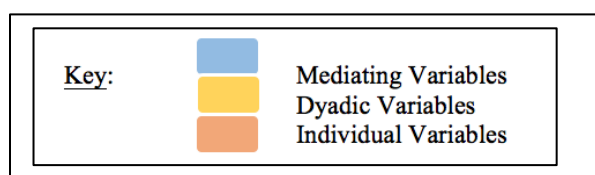
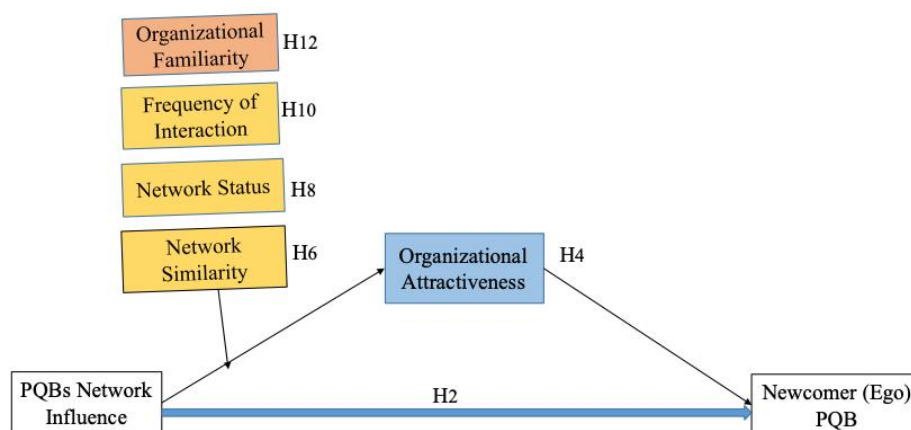
*Hypothesis 11: Organizational familiarity prior to entry moderates the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness, such that the relationship is weaker among egos who were more familiar with the organization prior to entry.*

*Hypothesis 12: Organizational familiarity prior to entry moderates the negative relationship between PQB network influence and the ego's subsequent perceptions of organizational favorability, such that the relationship is weaker among egos who were more familiar with the organization prior to entry.*

**FIGURE 1**  
*Hypothesized Model - Turnover Contagion*



**FIGURE 2**  
*Hypothesized Model - PQB Contagion*





## **METHODS**

### **Research Design**

This study employed a survey-based, lagged design in a network field study. The advantage of this design is that network relations at one point in time can be used to predict outcomes, such as voluntary turnover, at a future point in time (Borgatti, Everett & Johnson, 2013). This study employed an egocentric-network research design, which focuses on examining an individual's unique set of social contacts (Borgatti et al., 2013). In contrast to a "complete" network, egocentric studies do not provide an overall description of the social structure within an organization or department. Egocentric studies provide information about how a focal person's (or ego's) unique web of contacts relate to variables at the individual level of analysis (Morrison, 2002; Walker, Wasserman, & Wellman, 1993). Use of egocentric networks is ideal for studying organizational newcomers since they represent only a small fraction of the social system in which they are embedded (Morrison, 2002).

### **Sample and Procedures**

Data were collected from newcomers of a large, public university in the Northeast. I sent surveys to all newcomers who joined the organization between August 2017 and January 2018. Newcomers were full-time employees from across ranks, positions, and departments within the university, and included faculty, doctors from the medical school, administrative staff, etc. To solicit participation, the organization's human resources (HR) department sent an email to newcomers with details about the study. The email emphasized that participation was completely voluntary and that responses would be kept confidential, and indicated that the researcher would be following up with a link

to the survey. To mitigate concerns about common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), data was collected in two waves over a 5 month period.

*Wave 1.* Wave 1 was collected in mid-March to mid-April of 2018. During Wave 1, I gathered data on the newcomers' network, frequency of interaction, colleagues' PQBs, colleagues' status and similarity, as well as relevant controls, such as newcomers' deviance and advice networks.

I based my decision regarding timing of Wave 1 on guidance from the socialization literature. Because turnover is highest among newcomers (Griffeth & Hom, 2001), it is important to capture responses before newcomers have a chance to exit the organization, yet after they have a chance to develop a relatively stable network. In her study of newcomer information seeking, Morrison (1993) collected her network data three months after the newcomers' start date, citing Feldman (1977) and Katz (1978) for "suggesting" that three months would be a meaningful interval in the socialization process. While Feldman (1977) and Katz (1978) theorize that newcomer socialization occurs in stages, neither explicitly states three months to be a cutoff period. In his empirical study, Feldman states that newcomers focus on establishing new relationships with coworkers during the "Accommodation" stage of socialization, yet does not state the timeframe in which this occurs. Furthermore, Feldman's study did not employ a longitudinal design and therefore, as the author concedes, did not test assumptions made about the order in which socialization activities occur. Katz did not theorize about newcomers' relationships altogether. While the literature does not offer explicit guidance about the best timing of collecting data on the newcomer's network, tenure of around three months seems reason-

able based on precedent in the literature. I collected Wave I data from newcomers employed with the organization for around three months.

*Wave 2.* In August of 2018, I followed up with newcomers to ask which, if any, of the contacts they indicated in Wave 1 are no longer with the organization. I also collected data on newcomers' self-assessment of PQBs, perceptions of organizational attractiveness, as well as relevant controls for turnover, such as perceived ease of movement.

At the end of November 2018 I followed up with the organization's HR department to obtain a list of newcomers who left the organization, as well as the date and reason for their termination (whether voluntary or involuntary).

I sent Survey I to 854 newcomers. Thirty-nine emails were returned as invalid. A total of 329 newcomers completed the survey, for a total response rate of 38.52%. Out of these, 226 responses included the newcomer's network. As responses that don't include a newcomer's network cannot be used to examine contagion, they were excluded from the study. Survey II was sent to 226 newcomers. A total of 151 completed Survey II, for an overall response rate of 18.03%. Seven responses containing outliers were removed. A sizable number of personnel failed to report the organizational status of colleagues in their network, yet nonrespondents ( $M=4.54$ ) did not differ markedly from respondents ( $M=4.46$ ) in perceptions of organizational attractiveness. Final sample size was 144.

Women comprised 59.3% of respondents. Racial composition of final sample was 53.8% Whites, 17.2% Blacks, 12.4% Hispanics, and 10.3% Asians, .7% Pacific Islanders, and 4.8% Others. Mean age was in the 35-44 year range.

## Measures

*Ego (newcomer) turnover.* Ego's (newcomer's) turnover was assessed from organizational records six month after the survey 1 survey was administered. Respondents were coded as 0 for stayers and as 1 for voluntary leavers.

*Ego (newcomer) Pre-Quitting Behaviors (PQB).* Ego PQB was measured with a 13 item scale from Gardner et al., (2018). Respondents were asked to think of their behavior over the last two to three months and describe their level of agreement with a series of statements. Sample items include "I have been less interested in pleasing my manager than usual," and "I have exhibited less effort and work motivation than usual." Items were assessed using a five-point Likert scale, with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach's alpha is .93.

*Pre-Quitting Behaviors (PQB) network influence.* PQB network influence was calculated based on a newcomer's interaction network. I used a name generation technique to derive the composition of respondents' personal networks. Interaction network was operationalized as any colleague a newcomer indicated as having interacted with, with an interaction defined as "anything from greetings in the hallway to daily interaction" on the survey. Newcomers have been asked to list up to 10 coworkers in their network. Choice of network size was driven by the organization's turnover rates. With organizational yearly turnover rates ranging from 8 to 15% in 2015 to 2017, capturing a network of 10 should allow for examination of the effects of network turnover.

Survey length restrictions precluded use of the full PQB scale. Instead, a 2 item scale which measures global perceptions of colleague's likelihood of imminent turnover was used to assess PQBs. As per email communication with Dr. Timothy Gardner on 22

August 2017, this scale was used as a control in his 2018 study, and had a .80 correlation with the full PQB scale. The shortened scale was designed to focus on colleagues' display of behaviors which suggest imminent turnover. Items ask newcomers to assess "the chances that {Alter} will leave this organization within a year," as well as the extent to which a given alter "has exhibited behaviors in the past 2-3 month that make you think s/he will probably look for a new job." The first item was assessed using a five-point Likert scale, with responses ranging from 1 = *definitely not* to 5 = *definitely yes*. The second item was assessed using a five-point Likert scale, with responses ranging from 1 = *no chance* to 5 = *100% chance*. High scores indicated high display of PQBs. Cronbach's alpha was .88.

PQB network influence was operationalized by averaging PQB response values of all alters in the Ego's network. Operationalization of the influence coefficient was calculated based on guidance from NAM (Network Autocorrelation Model), and is detailed in the Analytical Strategy section.

*Turnover network influence.* Based on the newcomers' interaction network collected on survey 1, respondents were presented with a list of colleagues in their network and asked to indicate which are no longer with the organization. Stayers were coded as 0 and leavers were coded as 1. Turnover network influence was calculated as the proportion of alters who left to the total number of alters in a newcomers' network. For example, if 1 out of a newcomers' 10 connections turned over, that Ego's turnover network influence was 0.1. This operationalization is in line with Feely & Barnett's (1987) operationalization of turnover network influence.

*Frequency of interaction.* Frequency of interaction was operationalized as the av-

erage frequency with which newcomers talked to or exchanged information with colleagues in their network (Ibarra, 1995; Morrison, 2002). As per Morrison (2002), responses ranged from 1 = *daily* to 4 = *less than once a month*. For the model pertaining to PQBs, frequency of interaction was based on interaction with all alters in the ego network. For the model pertaining to turnover, frequency of interaction was based on interaction with alters in the ego network who left the organization.

*PQB/turnover network (organizational) status.* Status was operationalized based on hierarchical rank, as per earlier studies (Lin, 1982; Morrison, 2002). Network status refers to the organizational status of the ego network. Participants were asked to indicate how a colleague's organizational/hierarchical rank compared to theirs. Available responses were 1 = *higher ranking than me*, 2 = *of the same rank as I*, 3 = *lower ranking than I*, and 4 = *don't know*. Given that only the behaviors of alters higher in status than the ego were hypothesized to exert disproportionately greater influence, I operationalized network status based on the percentage of a newcomer's alters who were higher in status than the newcomer (Ibarra, 1992). PQB network status was calculated based on all alters in the ego network, while turnover network status was calculated based on the alters in the ego network left the organization. For example, if a newcomer indicated that 2 out of his 10 connections are higher in status than he, the newcomer's PQB network status was 0.2. If a newcomer indicated that 1 out of his 2 connected who left the organization are higher in status, the newcomer's turnover network status was 0.5.

*PQB/turnover network perceived similarity.* Perceived similarity was assessed with a scale adapted from Byrne (1971). Sample items include "{Name} has attitudes toward work that are similar to mine," and "Overall, {Name} is similar to me." Items

were assessed using a five-point Likert scale, with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Ego PQB network similarity was operationalized as the average score on the measure among all the alters in the ego network, while ego turnover network similarity was operationalized as the average score on the measure among alters in the ego network who left the organization (Ibarra, 1995). Cronbach's alpha is .97.

*Organizational attractiveness.* Organizational attractiveness was assessed with a 5-item scale from Highhouse, Lievens, & Sinar (2003). Sample items include, "For me, [This Organization] is a good place to work," and "A job at [This Organization] is very appealing to me." Items were assessed using a five-point Likert scale, with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. A reverse coded item that loaded poorly in the CFA was removed. Cronbach's alpha was .86.

*Organizational familiarity.* The extent to which newcomers may have been familiar with the organization prior to joining was assessed with the six item organizational familiarity scale from Allen, Mahto, & Otondo (2007). Responses were presented in a yes-no format and participants were asked to indicate whether they had familiarity with the organization in various facets. Sample items include, "1) Prior to joining [This Organization] please indicate whether you have ever heard of the organization," and "2) Prior to joining [This Organization] please indicate whether you have ever used the products or services of this organization". Responses indicating "Yes," were coded as 1, responses indicating "No," were coded as "0". Scores were calculated as the number of yesses.

## **Controls**

*Deviance network influence.* Deviance in the geo's network was controlled for in the PQB model due to the known correlation between the two variables (Gardner et al.,

2018). Specifically, I controlled for organizational deviance because attitudes and behaviors toward the organization are of interest in this study. For each colleague a newcomer has indicated as having interacted with, newcomers were presented with an adapted three item scale from Bennett & Robinson (2000) and asked to indicate the extent to which the alter engaged in each of the presented behaviors. The three mostly highly loaded items from the original scale were used due to survey length considerations. An item that loaded poorly in the CFA has been removed. Sample items include “[Name] put little effort in his/her work,” and “[Name] has taken additional or longer breaks than is acceptable at your workplace.” Scale items were assessed using a five-point Likert scale, with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*. I obtained the deviance network influence coefficient by averaging the deviance response values of all alters in a newcomer’s network as per guidance from NAM, which is detailed in the Analytical Strategy Section. Cronbach’s alpha is 1.00.

*Advice network.* To help rule out instrumental reasons that may be responsible for the impact of network turnover and PQBs on those of stayers, ego’s advice networks were assessed. To capture the advice network, newcomers were asked how often they seek work-related information from an alter they previously identified as a connection. Response options ranged from 0 = *not at all* to 4 = *very often*. I averaged the responses of all alters in the ego network (Morrison, 2002).

*Perceived ease of movement.* Perceived ease of movement has been controlled for in the turnover model due to the known correlation between the two variables (Griffeth, Steel, Allen & Bryan, 2005). Perceived ease of movement was measured using the three item ease of movement subscale from the Employment Opportunity Index scale (Griffeth



et al., 2005). Reverse worded items were recoded. Sample items include “There are many jobs for people like me in today’s market,” and “I can think of a number of organizations that would probably offer me a job if I was looking.” Items were assessed using a five-point Likert scale, with responses ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

### **Analytical Strategy**

Statistical analyses are typically based on the assumption of independence, or the idea that data obtained from one individual in the study is not related to data obtained from other individuals in the study (Grawitch & Munz, 2004). Contagion is based on the very idea of individuals influencing each other, which represents a form of non-independence. Network autocorrelation model (NAM), or network effects model, is the only analytical technique currently available for the study of contagion (Ibarra & Andrews, 1993; Kase, 2014). This model builds on the idea that individuals are embedded in networks of people, and is able to simultaneously take into consideration how the behaviors, attitudes, etc. of people an individual is surrounded by exert an influence on him or her, and account for an individual’s own relevant attributes (Ibarra & Andrews, 1993). Unlike more traditional types of network analyses such as MRQAP and ERGM, which emphasize structural properties as an outcome of interest, the advantage of the NAM is that it allows for the examination of the effects of social influence. The main advantage of NAM is that it is capable of acknowledging the interdependence between actors, directly assessing influence mechanisms, whereas more traditional model can only explore influence mechanisms indirectly (Kase, 2014). A key feature of NAM is the W (weight) matrix, which depicts the extent of influence each alter (colleague) has on the focal indi-

vidual (newcomer). Thus, an individual's behavior is the weighted combination of the behaviors of others in his or her network. Essentially  $W$  represents the strength of social influence between every pair of observations (dyadic data), or the effect size of contagion, between actors.

In addition to capturing the strength of influence, another benefit of NAM is that it yields parameter estimates that are interpreted in the same way as parameters in OLS regression (Dabos & Rousseau, 2013; Ibarra & Andrews, 1993). After applying NAM to obtain a coefficient representing the strength of contagion, the resulting value can then be used as a variable in the regression-based analysis of the researcher's choice (Dabos & Rousseau, 2013; Ibarra & Andrews, 1993).

It is important to point out that NAM is not a statistical technique of analysis. It is a model that specifies how to operationalize different types of influence. Essentially NAM concerns itself with the construction of the  $W$  matrix to ensure that it is constructed in a way that accurately represents the theory a researcher has about the nature of the influence processes in the network.

When specifying  $W$ , four steps need to be taken (Leenders, 2002). First the researcher needs to decide whether influence occurs through the autocorrelations of the dependent variable, or through autocorrelation of the dependent variable and the autocorrelation of disturbances. Autocorrelation of the dependent variable represents the effects of contagion in the environment that one is embedded in. However, an individual's behaviors/opinions/attitudes are not typically shaped by ones' environment alone but also depend on what is known as "local effects". In the context of individuals, local effects can be individual differences, preferences, intrinsic opinions, etc. For example, an individu-

als' political views may be shaped by the political views of family, friends, and colleagues. Additionally, an individual's political views can be influenced by his or her economic status, education, marital status, personal political views held prior to exposure to the political opinions of others, etc. In this case, an ego will be influenced or swayed by the opinions of others, but his opinion will not be the absolute value of the opinions of his alters. In this example the opinions of others represent a deviation from the alter's intrinsic opinions, or the earlier mentioned autocorrelation of disturbances. Essentially the decision a researcher needs to make in step 1 is whether the influence exerted by others is the sole determinant of an ego's behaviors/opinions/attitudes, or whether the influence of others is one of several factors that determine an ego's values on the outcome(s) of interest. In the context of this study, turnover and PQB network influence represent the autocorrelation of the dependent variable. Correlates of turnover and PQBs, such as individual satisfaction or perceived external opportunities, may be a source of deviation or disturbance from the influence exerted by colleagues.

The second step involves a decision regarding whether individuals are influenced by those they have ties with, and those they don't have ties with. For example, individuals may be influenced to buy a phone that their friends have (direct ties), or they may be influenced to buy a phone that a celebrity advertised on a commercial (no direct tie, assuming they don't know the celebrity). Studies in the management literature provide examples of individuals adapting the behaviors of those with whom they don't have a tie. Burt's (1987) study suggests that physicians are more likely to adopt a new drug after physicians who are structurally equivalent to them, or who occupy similar positions to them in the social structure, have adopted the drug. A study by Angst et al., (2010) shows

that hospital managers are more likely to adopt electronic medical records when hospitals that are greater in size and age and are spatially proximal have adopted electronic medical records.

The third step is a decision regarding which alters within an individual's network exert an influence on the ego and which do not. In other words, this decision is a choice about which elements of  $W$  are zero and which are non-zero. The fourth step involves a decision regarding the magnitude of influence exerted on the ego by the non-zero elements of  $W$ , or by those alters who are exerting at least some type of influence on the ego (Leenders, 2002). NAM provides guidance on the operationalization of  $W$  based on decisions a researcher makes regarding each of the four earlier steps.

Upon determining the coefficient of influence ( $W$ ), researchers use the value they obtain based on guidance from NAM as a variable in the choice of statistical analysis they wish to undertake. In this study I used guidance from NAM to calculate the PQB and turnover network influence variables. Because deviance is highly correlated with PQBs, I controlled for the effects of alters' deviance, or the deviance network influence, in the PQB contagion model. After constructing the  $W$  matrix to determine the coefficient of influence, I conducted standard regression-based analysis in SPSS.

#### *Applying NAM to Determine PQB and Turnover Network Influence*

The first step in specifying the  $W$  matrix is determining whether influence occurs through the autocorrelations of the dependent variable, or through autocorrelation of the dependent variable and the autocorrelation of disturbances. Because there are a number of factors that can impact an individual's turnover and PQBs, a sample of newcomers was chosen for this study as a natural control for disturbances. Experience in an organiza-

tion shapes an individual's perception of organizational attractiveness. An individual's perceptions of organizational attractiveness can be shaped by the organization's HR practices, how the individual is treated by his or her manager, the closeness of his or her interactions with colleagues, organizational climate, colleagues' opinions about the organization, etc. Tenure in the organization is required for individuals to get the experiences and information necessary to determine their own perceptions of organizational attractiveness. Newcomers starting a new job with an organization have a limited knowledge of what the organization is like and rely largely on their colleagues to make sense of the organization and what it's like (Louis, 1980). A more in-depth discussion of how and why newcomers look to the behavior of others is available in the section titled "Newcomer Experience and Role of Organizational Actors." Coming in with a largely clean slate about what the organization is like, newcomers' perceptions of organizational attractiveness are shaped almost entirely by what they can glean from colleagues. Therefore, I theorize that autocorrelation of the dependent variables (ego PQB and turnover) is the type of influence process through which contagion operates in the set of relationships this study seeks to investigate.

The second step involves a decision regarding whether individuals are influenced by those they have ties with or those they don't have ties with. Of interest in this study is the influence exerted by colleagues an individual interacts with.

The third step is to determine which alters an ego is influenced by. Hypotheses pertaining to similarity are based on all alters in a newcomer's network because similarity is measured as the extent to which each of the alters is similar to the ego. Hypotheses pertaining to status are based only on alters in an ego's network who are of higher status

than they because the behaviors of only higher status alters are hypothesized to exert a disproportionate degree of influence.

The fourth step is to determine the extent to which each of an ego's alters exerts an influence. The extent of influence depends on the extent to which alters engage in the behaviors being spread. For PQBs and deviance, which are measured on a five-point Likert scale, greater extent of PQB and deviance display among alters will lead to a higher influence of these behaviors on the newcomer. Strength of influence of these two behaviors is operationalized as per responses pertaining to the average of the alters' engagement in the relevant behaviors on the 5-point Likert scale on which they are measured, such that greater values constitute stronger influence. Turnover is operationalized dichotomously, with stayers coded as 0 and leavers coded as 1. The turnover of each alter is calculated as equal in weight, such that the turnover network influence is equal to the number of alters in an ego's network who left, divided by the total number alters in a newcomer's network. Stayers don't contribute to the turnover network influence, so each stayer has an influence of zero.

Based on the attributes of influence described in the previous paragraphs, NAM specifies row normalization for a weight (W) matrix, where each row displays the influence exerted by each ego's alter on the ego (Leenders, 2002). Row normalization is equal to the average values of the ego's alters who contribute to the influence on the behavior of interest. Further information about how each type of influence was calculated is available in the Measures section. Row normalization is appropriate when the behavior of each alter that contributes to the effect of influence contributes an equal proportion of the total influence value (Leenders, 2002). For example, if an ego has ten alters in the PQB

influence network, each alter's PQB will represent a tenth of the total influence exerted on the ego by his PQB network. Similarly, if an ego has three alters, in a network of ten, who turnover, each ego's turnover will represent a third of the total influence exerted on the ego by his turnover network.

## RESULTS

Before hypothesis testing, I examined the validity of my measures by performing a confirmatory factor analysis (CFA) using Mplus 8.1. Because inclusion of the full 13 item PQB scale used to measure the latent construct would result in a low participant-parameter ratio, item parcels were developed such that three latent constructs had three manifest indicators, and one had four (Bagozzi & Edwards, 1998). A non-significant chi-square, CFI and TLI values of .90 or more, RMSEA of .08 or less, and SRMR values of .08 or less (Bentler, 1990; Browne & Cudeck, 1989; Joreskog & Sorborn, 1981) constitute acceptable fit. The model exceeds acceptable cutoff levels with  $\chi^2(104)=130.36$ ,  $p>.01$ , CFI=.98, TLI=.97, RMSEA=.04, SRMR=.06. All factor loadings were significant (all  $p$  values  $< .001$ ), ranging from .64 to .95. The hypothesized six-factor model also fit the data significantly better than a five factor model where PQB network influence and ego PQB were loaded on a single factor,  $\chi^2(109)=217.22$ ,  $p<.001$ , CFI=.91, TLI=.89, RMSEA=.08, SRMR=.09. A chi-square difference test confirmed the superiority of the six factor model (critical value  $\chi^2(5)=20.52$ ; obtained value  $\chi^2=86.86$ ,  $p<.001$ ). In addition, the hypothesized six-factor model fit the data significantly better than a two-factor model where PQBs network influence, ego PQB, and deviance network influence items were loaded on a single factor, and organizational attractiveness, perceived ease of movement, and perceived network similarity items were loaded on a separate factor  $\chi^2(118)=845.76$ ,  $p<.001$ , CFI=.38, TLI=.29, RMSEA=.21, SRMR=.21. A chi-square difference test confirmed the superiority of the six factor model (critical value  $\chi^2(9)=36.12$ ; obtained value  $\chi^2=715.40$ ,  $p<.001$ ). Finally, the hypothesized six-factor model fit the data significantly better than a single factor model  $\chi^2(120)=847.71$ ,  $p<.001$ , CFI=.38, TLI=.30,



RMSEA=.21, SRMR=.17, where a chi-square difference test confirmed the superiority of the six-factor model (critical value  $\chi^2(16)=39.25$ ; obtained value  $\chi^2=717.35$ ,  $p<.001$ ).

Overall, these results provide support for the validity of my measures.

Prior to hypothesis testing, I sought to determine whether there was significant department-level variance in display of PQBs and turnover among newcomers. I computed a one-way ANOVA with department as the independent variable and ego (newcomer) PQB and turnover as the dependent variables, respectively. Results indicated that the department a newcomer works in has no significant effects on the newcomer's display of PQBs ( $F(118, 26)=1.48$ ,  $p>.10$ ) and no significant effects on the newcomer's turnover ( $F(43, 4)=0.59$ ,  $p>.10$ ). The means, standard deviations, and correlations among study variables are reported in Tables 1 and 2.

Hypothesis 1 predicted a positive relationship between turnover network influence and the ego's subsequent propensity to turnover. Hierarchical logistic regression was used because logistic regression is more appropriate than traditional OLS regression for assessing dichotomous dependent variables. The first step, where only the control variables were entered, was not significant ( $R^2=.10$ ). The second step, where turnover network influence was added, was not significant ( $R^2=.14$ ). Hypothesis 1 was not supported. Results are reported in Table 3, where beta represents log odds and  $\text{Exp}(\beta)$  represents odds.

**TABLE 1**  
***Means, Standard Deviations, and Correlations Pertaining to Turnover Contagion***  
***(Figure 1)***

Variable	M	SD	1	2	3	4
Advice Network (1)	8.76	2.14				
Perceived Ease of Movement (2)	3.40	1.05	.21*			
Organizational Attractiveness (3)	4.38	.70	.10	-.04		
Network Similarity (4)	4.34	.15	.11	-.08	-.13	
Network Status (5)	.06	.15	-.54**	-.05	-.31*	.05
Frequency of Interaction (6)	3.30	.95	-.16	.02	.02	-.09
Organizational Familiarity (7)	2.64	1.01	-.01	.15	.04	.02
Turnover Network Pressure (8)	.05	.11	-.15	.12	.06	.00
Ego Turnover (9)	.01	.12	.07	-.03	.00	.19

*Note.*  $n = 144$  after pairwise deletion of missing data.

\* $p < .05$ ; \*\* $p < .01$

**TABLE 1, Continued**  
*Means, Standard Deviations, and Correlations Pertaining to Turnover Contagion*  
*(Figure 1)*

Variable	5	6	7	8
Advice Network (1)				
Perceived Ease of Movement (2)				
Organizational Attractiveness (3)				
Network Similarity (4)				
Network Status (5)				
Frequency of Interaction (6)	.12			
Organizational Familiarity (7)	.09	.12		
Turnover Network Pressure (8)	.79**	.12	-.01	
Ego Turnover (9)	.05	-.07	-.07	.05

*Note.*  $n = 144$  after pairwise deletion of missing data.

\* $p < .05$ ; \*\* $p < .01$

**TABLE 2**  
***Means, Standard Deviations, and Correlations Pertaining to PQB Contagion***  
***(Figure 2)***

Variable	M	SD	1	2	3	4
Advice Network (1)	8.76	2.14				
Deviance Network Pressure (2)	1.38	.66	.10			
Organizational Attractiveness (3)	4.48	.70	.10	-.09		
Network Similarity (4)	4.15	.61	.00	.44**	.27**	
Network Status (5)	.37	.22	.20*	-.07	.05	-.20
Frequency of Interaction (6)	3.36	.63	-.03	-.06	.10	.10
Organizational Familiarity (7)	2.64	1.09	.00	.74	.04	.00
PQB Network Pressure (8)	1.38	.47	.11	.08	-.23**	-.28**
Ego PQB (9)	1.54	.69	-.02	.15	-.46**	-.39**

*Note.*  $n = 144$  after pairwise deletion of missing data.

\* $p < .05$ ; \*\* $p < .01$

**TABLE 2, Continued**  
*Means, Standard Deviations, and Correlations Pertaining to PQB Contagion*  
*(Figure 2)*

Variable	5	6	7	8
Advice Network (1)				
Deviance Network Pressure (2)				
Organizational Attractiveness (3)				
Network Similarity (4)				
Network Status (5)				
Frequency of Interaction (6)	-.11			
Organizational Familiarity (7)	.04	.16		
PQB Network Pressure (8)	-.18	-.20*	-.90	
Ego PQB (9)	-.70	.17*	-.07	.17*

*Note.*  $n=144$  after pairwise deletion of missing data.

\* $p < .05$ ; \*\* $p < .01$

Hypothesis 2 predicted a positive relationship between PQB network influence and the ego's subsequent propensity to display PQBs. Hierarchical regression was used to test the proposed relationships. Hypothesis 2 was not supported ( $B=.14$ ,  $p>.05$ ). While the relationship between PQB network influence and the ego PQB is in the predicted direction, it is not significant. These results are in line with earlier work that shows mixed effects associated with turnover contagion (Rubenstein et al., 2018). Results are reported in Table 4.

Hypothesis 3 predicted that relationship between turnover influence and the ego's subsequent propensity to turnover is mediated through perceptions of organizational attractiveness. The third step in the hierarchical logistic regression, following Hypothesis 1, where organizational attractiveness was added, was not significant ( $R^2=.26$ ). Hypothesis 3 was not supported. Results are reported in Table 3.

**TABLE 3**  
***Logistic Regression Results Predicting Ego Turnover***

Variable	Model 1 $\beta((Exp(\beta)))$	Model 2 $\beta((Exp(\beta)))$	Model 3 $\beta((Exp(\beta)))$
Advice network	13.49 (721323.90)	12.99(435746.09)	13.07(472338.31)
Perceived ease of movement	-.41(.66)	-.50(.62)	-.53(.59)
Turnover network influence		5.41(224.62)	5.68(293.95)
Organizational attractiveness			-.396(.67)
Step $R^2$	---	.04	.00
Model $R^2$	.10	.14	.14

*Note:*  $R^2$ = Nagelkerke  $R^2$ ,  $\beta$ = beta,  $Exp(\beta)$  = expected change.

**TABLE 4**  
***Hierarchical Regression Results Predicting Ego PQB***

Variable	Model 1	Model 2
Advice network	-.05	-.06
Deviance network influence	.15	.14
PQP network influence		.14
$\Delta R^2$	-	.02
$R^2$	.02	.04

*Note.* Standardized beta coefficients are reported.



Hypothesis 4 predicted that relationship between PQB network influence and the ego's subsequent propensity to display PQBs is mediated through perceptions of organizational attractiveness. SPSS PROCESS macro developed by Hayes (2012) was used to test for mediating effects. PROCESS relies on bootstrapping to estimate the confidence intervals of the indirect effects of predictors through the mediators. Bootstrapping is a computationally intensive method that involves repeated sampling from the data set to build an empirical approximation of the sampling distribution, which is used to construct confidence intervals for the indirect effect (Preacher & Hayes, 2008). An advantage of bootstrapping is that it avoids Type 1 error that can result from non-normal distributions of an indirect effect, which is a shortcoming of methods such as the Sobel test (Edwards & Lambert, 2007). In conditional process modeling (Hayes, 2013), full mediation is evident when there is a significant relationship between the independent variable (PQB network influence) and the mediator (organizational attractiveness), as well as the mediator (organizational attractiveness) and the dependent variable (ego PQB), in the absence of a significant direct relationship between the independent (PQB network influence) and dependent variables (ego PQB). In the instance of full mediation, the mediating variable accounts for the relationship between the independent and dependent variables. Partial mediation is evident when the significant relationship between the independent and dependent variable is attenuated, yet still significant, in the presence of the mediator. In the instance of partial mediation, the mediating variable accounts for some, but not all, of the relationship between the independent and dependent variables. Mediation is supported when the confidence interval for the direct effect does not include zero (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). In support of mediation there was a nega-

tive, significant relationship between the independent variable, PQB network influence, and the mediator, organizational attractiveness ( $B = -.35$ ,  $p < .05$ ), as well as a negative, significant relationship between the mediator, organizational attractiveness, and the dependent variable, ego PQBs ( $B = -.44$ ,  $p < .001$ ). The indirect effect was significant, as evidenced by a 95 percent confidence interval (.04 to .36) that does not include zero. Indirect effect size was .16. The normal theory tests for the indirect effect (i.e., Sobel Test) replicated these findings ( $B = .16$ ,  $p < .05$ ). The non-significance of a direct effect ( $B = .06$ ,  $p > .05$ ) in the model indicates full mediation of PQBs network influence and ego PQB through organizational attractiveness (MacKinnon et al., 2002). Hypothesis 4 is supported. Results are reported in Table 5. Mediating effects are depicted in Figure 3.

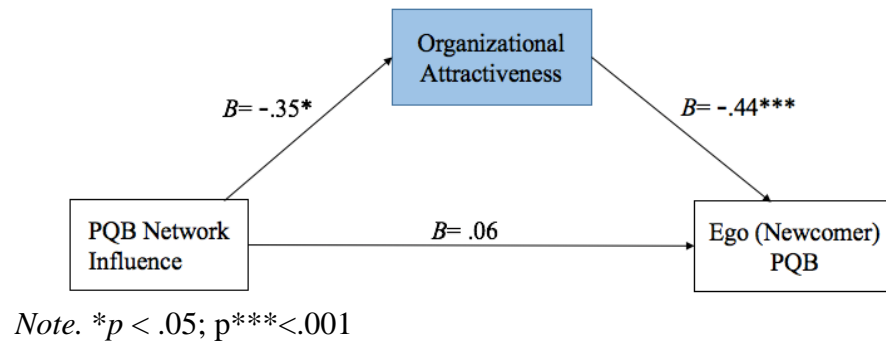
**TABLE 5**  
*Direct, Indirect, and Total Effects of PQB Network Influence on Ego PQB*

Variable	Direct effects	Indirect effects	Total effects
PQB network influence	.059	.155*	.214

*Note.* Standardized beta coefficients are reported.

\* $p < .05$

**FIGURE 3**  
*Results of Simple Mediation Predicting Ego PQB*



Hypothesis 5 predicted that the turnover of similar colleagues would moderate the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multi-collinearity and improve interpretation of the regression coefficients (Cohen, Cohen, West, & Aiken, 2013). The interaction terms were non-significant in predicting perceptions of organizational attractiveness ( $B = -.04, p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 5 was not supported. Results are reported in Table 6.

Hypothesis 6 predicted that PQBs of similar colleagues would moderate the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multi-collinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The interaction terms were non-significant in predicting perceptions of organizational attractiveness ( $B = .05, p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 6 was not supported. Results are reported in Table 7.

Hypothesis 7 predicted that the turnover of high status colleagues would moderate the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multi-collinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The interaction terms were non-significant in predicting perceptions of organiza-

tional attractiveness ( $B = .83, p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 7 was not supported. Results are reported in Table 6.

Hypothesis 8 predicted that PQBs of high status colleagues would moderate the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multi-collinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The interaction terms were non-significant in predicting perceptions of organizational attractiveness ( $B = .08, p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 8 was not supported. Results are reported in Table 7.

Hypothesis 9 predicted that frequency of interaction would moderate the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multi-collinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The interaction terms were non-significant in predicting perceptions of organizational attractiveness ( $B = -.06, p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 9 was not supported. Results are reported in Table 6.

**TABLE 6**  
***Sequential Multiple Regression Analysis Predicting Organizational Attractiveness***  
***(Turnover Contagion)***

Variable	Model 1	Model 2	Model 3
Advice network	.25	.18	.20
Perceived ease of movement	-.02	-.09	-.12
Turnover network influence(A)		-.08	-.33
Network similarity (B)		-.15	-.15
Network status (C)		-.19	-.65
Frequency of interaction (D)		.03	.06
Organizational familiarity (E)		.41**	.54
A x B			-.04
A x C			.83
A x D			-.06
A x E			-.19
$\Delta R^2$	---	.23	.04
$R^2$	.06	.29	.33

*Note.* Standardized beta coefficients are reported.

\*\* $p < .01$

**TABLE 7**  
***Sequential Multiple Regression Analysis Predicting Organizational Attractiveness***  
***(PQB Contagion)***

Variable	Model 1	Model 2	Model 3
Advice network	.07	.12	.13
Deviance network influence	-.10	.00	-.03
PQB network influence (A)		-.20*	-.25*
Network similarity (B)		.24*	.23*
Network status (C)		.00	.02
Frequency of interaction (D)		-.01	-.03
Organizational familiarity (E)		.17	.17
A x B			.05
A x C			.08
A x D			-.05
A x E			-.19
$\Delta R^2$	---	.15*	.03
$R^2$	.01	.16*	.19*

*Note.* Standardized beta coefficients are reported.

\* $p < .05$



Hypothesis 10 predicted that frequency of interaction would moderate the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multicollinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The interaction terms were non-significant in predicting perceptions of organizational attractiveness ( $B = -.05$ ,  $p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 10 was not supported. Results are reported in Table 7.

Hypothesis 11 predicted that organizational familiarity prior to entry would moderate the negative relationship between turnover network influence and the ego's perceptions of organizational attractiveness. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multicollinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The interaction terms were non-significant in predicting perceptions of organizational attractiveness ( $B = -.19$ ,  $p > .05$ ), suggesting the lack of a moderating effect. Hypothesis 11 was not supported. Results are reported in Table 6.

Hypothesis 12 predicted that organizational familiarity prior to entry would moderate the negative relationship between PQB network influence and the ego's perceptions of organizational attractiveness, such that the relationship becomes weaker. Sequential multiple regression was used to test for moderating effects. The interaction terms were mean-centered in order to reduce the threat of multicollinearity and improve interpretation of the regression coefficients (Cohen et al., 2013). The PQB network influence x knowledge prior to entry interaction was non-significant in predicting perceptions of or-

ganizational attractiveness ( $B=-.19$ ,  $p>.05$ ), suggesting the lack of a moderating effect.

Hypothesis 12 was not supported. Results are reported in Table 7.

### *Post Hoc Analyses*

While not hypothesized, examining the relationship of PQB network influence on ego turnover is of interest as this relationship may speak to contagion effects through which behaviors indicative of leaving may translate to turnover. Following the theory advanced in this manuscript, PQB network influence should translate to turnover if these behaviors among an ego's network speak negatively about organizational attractiveness. With this in mind, I examined the relationship between PQB network influence on ego turnover when controlling for the effects of the ego's advice network and perceived ease of movement, and as well as the mediating effects of organizational attractiveness in this relationship.

Hierarchical logistic regression was used to examine the proposed relationships. The first step, where only the control variables were entered, was not significant ( $R^2=.03$ ). The second step, where PQB network influence was added, was also not significant ( $R^2=.09$ ). The last step, in which organizational attractiveness was added, was also not significant ( $R^2=.16$ ). Overall, results don't provide support for the proposed relationship.

## **DISCUSSION**

This study advances work in the turnover contagion literature, and provides greater insight into the impact leavers have on those who stay behind. By answering calls in the literature for an investigation of the process through which turnover contagion operates (Felps et al., 2009; Lee et al., 2017), this study resolves tension in the literature regarding whether turnover is associated with positive or negative effects on stayers. Results suggest that presence of turnover related behaviors among colleagues need not be evidence of contagion. Corroborating previous work (Rubenstein et al., 2018; Shapiro et al., 2016), I find that PQBs don't have uniformly negative effects on organizational stayers.

### **Theoretical Implications**

While the direct relationship between PQB network influence and ego PQB was not significant, perceptions of organizational attractiveness fully mediated this relationship. These results suggest that it is not so much colleagues' turnover-related behaviors, but the interpretation of cues behind these behaviors, that determine the impact turnover-related behaviors exert and whether these turnover-related behaviors spread throughout the organization. Turnover-related behaviors that don't speak negatively about the organization have a minimal impact on colleagues.

A major contribution of this manuscript is an improved understanding of the nature of turnover contagion as a phenomenon. Conceptualized as being similar to the spread of an illness (Felps et al., 2009; Lee et al., 2017), turnover contagion has been viewed as an unidentifiable, somewhat cryptic phenomenon, and taken to be something that "just happens." As a case in point, illness spreads in unpredictable and frequently

unknowable ways, with some interactions with a sick person resulting in the transfer of an illness, but not others. Identifying turnover contagion as spreading through the negative perceptions of organizational attractiveness, turnover contagion is a far more concrete, tangible, and controllable. Having greater parameters around the scope of a phenomenon can provide solid ground for future work to build on.

### **Practical Implications**

The spread of some types of behaviors, such as the spread of a yawn, occurs through involuntary behavioral mimicry that defies conscious control. Results indicating turnover contagion spreads through perceptions of organizational attractiveness is positive news for management because these results suggest that the spread of turnover contagion is in our hands. While colleague turnover is easy to interpret as speaking negatively about an organization, organizations have the tools to stir employees from those perceptions. Concrete evidence about the positive attributes of an organization can go a long way to shaping employees' perceptions and containing the spread of turnover. This type of information can be particularly effective if it not only highlights the positive attributes of an organization, but also establishes an organization's positive attributes as being superior to those of competing employers. This approach can establish the company as an attractive employer and prevent employees from seeking greener pastures elsewhere. For example, turnover of colleagues in companies that have a reputation for being good employers, such as companies recognized as an employer of choice, is less likely to be attributed to organizational unattractiveness (Dineen & Allen, 2016). Employers have an option of applying for such awards. Adopting the types of HR practices that employees

value, but that are not commonly offered at other companies, is another example of an approach that can contain the spread of turnover.

### **Limitations and Future Research**

Despite the identified merits of my investigation, it has several limitations. Due to constraints associated with the timing of data collection, I obtained turnover data six months after the collection of the first survey. Typically, turnover studies wait a year to follow up with the organization regarding the turnover data. Collecting this data a year after the administration of the first survey would have allowed the observation of higher turnover numbers. Future studies can overcome this concern by waiting a year or longer to observe the effects of turnover. Finding a larger sample would be of benefit to future studies as well.

I obtained newcomers' turnover networks via self-reports, with newcomers identifying which colleagues left the organization. Newcomers can lack information about which colleagues left, and may have indicated fewer colleagues as having turned over. Furthermore, considering that additional colleagues could have left after the administration of the second survey, the turnover network captured is likely an underestimation of the actual turnover network. To improve accuracy, future studies should try to obtain data on the turnover of an individual's alters from the organization.

While this study examined perceptions of organizational attractiveness following colleagues' turnover and PQBs, examination of attributions employees make for turnover and turnover related behaviors of colleagues would provide further insight into the causal explanations employees make for these behaviors, as well as how they are impacted by

these types of behaviors. Future studies should examine the attributions employees make for the turnover related behaviors of their colleagues.

I conducted my within a single organization and industry. As a result, it is not certain to which extent the present findings would generalize to other organizations, industries, and employee populations. To address this concern, I advocate additional studies in different work and organizational contexts to allow further examination of the generalizability of the study's findings.

## REFERENCES

- Adams, S. J. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422–436.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Allen, D. G., Bryant, P. C., & Vardaman, J. M. (2010). Retaining talent: Replacing misconceptions with evidence-based strategies. *Academy of Management Perspectives*, 24(2), 48–64.
- Allen, D. G., Mahto, R. V., & Otondo, R. F. (2007). Web-based recruitment: Effects of information, organizational brand, and attitudes toward a web site on applicant attraction. *Journal of Applied Psychology*, 92(6), 1696–1708.
- Allen, D. G., Peltokorpi, V., & Rubenstein, A. L. (2016). When “Embedded” means “Stuck”: Moderating effects of job embeddedness in adverse work environments. *Journal of Applied Psychology*, 101(12), 1670–1686.
- Angst, C. M., Agarwal, R., Sambamurthy, V., & Kelley, K. (2010). Social contagion and information technology diffusion: The adoption of electronic medical records in U.S. hospitals. *Management Science*, 56(8), 1219–1241.
- Anseel, F., Beatty, A. S., Shen, W., Lievens, F., & Sackett, P. R. (2015). How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *Journal of Management*, 41(1), 318–348.
- Arthur, M. B., & Rousseau, D. M. (1996). A career lexicon for the 21st century. *Academy of Management Perspectives*, 10(4), 28–39.
- Ashford, S. J. (1986). Feedback-seeking in individual adaptation: A resource perspective. *Academy of Management Journal*, 29(3), 465–487.
- Ashford, S. J., & Cummings, L. L. (1983). Feedback as an individual resources: Personal strategies of creating information. *Organizational Behavior and Human Performance*, 32, 370–398.
- Bagozzi, R.P., & Edwards, J.R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods*, 1(1), 45–87.
- Ballinger, G.A., Cross, R., & Holtom, B. C. (2016). The right friends in the right places: Understanding network structure as a predictor of voluntary turnover. *Journal of Applied Psychology*, 101(4), 535–548.

- Ballinger, G.A., Lehman, D. W., & Schoorman, F. D. (2010). Leader-member exchange and turnover before and after succession events. *Organizational Behavior and Human Decision Processes*, 113, 25–36.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, 4(3), 359–373.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44(9), 1175–1184.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bartunek, J. M., Huang, Z., & Walsh, I. J. (2008). The development of a process model of collective turnover. *Human Relations*, 61(1), 5–38.
- Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., & Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. *Journal of Applied Psychology*, 92(3), 707–721.
- Bennett, R. J., & Robinson, S. L. (2000). Development of a measure of workplace deviance. *Journal of Applied Psychology*, 85(3), 349–360.
- Bidwell, M., Briscoe, F., Fernandez-Mateo, I., & Sterling, A. (2013). The Employment Relationship and Inequality: How and Why Changes in Employment Practices are Reshaping Rewards in Organizations. *The Academy of Management Annals*, 7(1), 61–121.
- Bikhchandani, S., Hirschleifer, D., & Welch, I. (1998). Learning from the behavior of others: Conformity, fads, and information cues. *The Journal of Economic Perspectives*, 12(3), 151–170.
- Blau, G. (1993). Further exploring the relationship between job search and voluntary individual turnover. *Personnel Psychology*, 46(2), 313–330.
- Borgatti, Stephen P, Foster, P. C. (2003). The network paradigm in organizational research: A review and typology. *Journal of Management*, 29(6), 991–1013.
- Borgatti, S. P., & Halgin, D. S. (2011). On network theory. *Organization Science*, 22(5), 1168–1181.
- Brass, D. J. (1995). A social network perspective on human resources management. *Research in Personnel and Human Resources Management*, 13, 39–79.



- Briggs, S. R., & Cheek, J. M. (1986). The role of factor analysis in the development and evaluation of personality scales. *Journal of Personality*, 54(1), 106–148.
- Buckley, M. R., Fedor, D. B., Veres, J. G., & Wiese, D. S. (1998). Investigating new-comer expectations and job-related outcomes. *Journal of Applied Psychology*, 83(3), 452–461.
- Burt, R. S. (1987). Social Contagion and Innovation: Cohesion versus Structural Equivalence. *American Journal of Sociology*, 92(6), 1287.
- Burton, J. P., Holtom, B. C., Sablinski, C. J., Mitchell, T. R., & Lee, T. W. (2010). The buffering effects of job embeddedness on negative shocks. *Journal of Vocational Behavior*, 76, 42–51.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Cabane, O. F. (2013). *The charisma myth: How anyone can master the art and science of personal magnetism*. New York, NY: Penguin.
- Cappelli, P. (1999). Career jobs are dead. *California Management Review*, 42(1), 146–167.
- Cappelli, P. (2001). Assessing the decline of internal labor markets. In I. Berg & A. L. Kalleberg (Eds.), *Sourcebook of labor markets. Plenum studies in work and industry*. (pp. 207–245). Boston, MA: Springer US.
- Cascio, W. F. (2006). The economic impact of employee behaviors on organizational performance. In *America at work* (pp. 241–245).
- Castelli, L., Vanzetto, K., Sherman, S. J., & Arcuri, L. (2001). The explicit and implicit perception of in-group members who use stereotypes: Blatant rejection but subtle conformity. *Journal of Experimental Social Psychology*, 37(5), 419–426.
- Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and Performance. *Journal of Applied Psychology*, 93(5), 1082–1103.
- Christakis, N. A., & Fowler, J. H. (2007). The spread of obesity in a large social network over 32 years. *The New England Journal of Medicine*, 357(4), 370–9.
- Cialdini, R. B., & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, 55(1974), 591–621.
- Cialdini, R. B., & Trost, M. R. (1998). Social influence: Social norms, conformity, and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 151–192). Boston: McGraw-Hill.

- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. (3rd ed.). Mahwah, NJ: Erlbaum.
- Cohen, R. J., & Swedlik, M. E. (2005). *Psychological testing and assessment: An introduction to tests and measurement* (6th ed.). New York: McGraw-Hill.
- Collins, R. L. (1996). For better or worse: The impact of upward social comparison on self-evaluations. *Psychological Bulletin*, 119(1), 51–69.
- Dabos, G. E., & Rousseau, D. M. (2013). Psychological contracts and informal networks in organizations: The effects of social status and local ties. *Human Resource Management*, 52(4), 485–510.
- Degoey, P. (2000). Contagious justice: Exploring the social construction of justice in organizations. *Research in Organizational Behavior*, 22, 51–102.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology*, 51(3), 629–636.
- Dineen, B. R., & Allen, D. G. (2016). Third Party Employment Branding : Human Capital Inflows and Outflows Following “ Best Places To Work ” Certifications. *Academy of Management Journal*, 59(1), 90–112.
- Doeringer, P., & Piore, M. J. (1971). *Internal labor markets and manpower adjustment*. New York: Heath Lexington Books.
- Driskell, J. E., & Mullen, B. (1990). Status, expectations, and behavior: A meta-analytic review and test of the theory. *Personality and Social Psychology Bulletin*, 16(3), 541–553.
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12(1), 1–22.
- Fang, R., Duffy, M. K., & Shaw, J. D. (2010). The Organizational Socialization Process: Review and Development of a Social Capital Model. *Journal of Management*, 37(1), 127–152.
- Feeley, T. H., & Barnett, G. A. (1997). Predicting employee turnover from communication networks. *Human Communication Research*, 23(3), 370–387.
- Feldman, D. C. (1977). A contingency theory of socialization. *Administrative Science Quarterly*, 21, 433–452.

- Feldman, D. C., & Brett, J. M. (1983). Coping with new jobs: A comparative study of new hires and job changers. *Academy of Management Journal*, 26(2), 258–272.
- Felps, W., Mitchell, T. R., Hekman, D. R., Lee, T. W., Holtom, B. C., & Harman, W. S. (2009). Turnover Contagion: How Coworkers' Job Embeddedness and Job Search Behaviors Influence Quitting. *Academy of Management Journal*, 52(3), 545–561.
- Fernandez, R. M., Castilla, E. J., & Moore, P. (2000). Social capital at work: Networks and employment at a phone center. *American Journal of Sociology*, 105(5), 1288–1356.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140.
- Fine, G. A. (1986). Friendships in the workplace. In V. J. Derlega & B. A. Winstead (Eds.), *Friendship and social interaction* (pp. 184–206). New York: Springer-Verlag.
- Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology*, 44(1), 155–194.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition*. New York, NY: McGraw-Hill.
- Funder, D. C. (1995). On the accuracy of personality judgment: A realistic approach. *Psychological Review*, 102(4), 652–670.
- Funder, D. C. (2012). Accurate personality judgement. *Current Directions in Psychological Science*, 21(3), 177–182.
- Gardner, T. M., Van Iddekinge, C. H., & Hom, P. W. (2018). If you've got leavin' on your mind: The identification and validation of pre-quitting behaviors. *Journal of Management*, 44(8), 3231–3257.
- Giacalone, R. A., Knouse, S. B., & Montagliani, A. (1997). Motivation for and prevention of honest responding in exit interviews and surveys. *The Journal of Psychology*, 131(4), 438–448.
- Goldberg, L. R. (1999). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. In I. Mervielde, I. Dreary, F. De Fruyt, & F. Ostendorf (Eds.), *Personality psychology in Europe*, Vol. 7 (pp. 7–28). Tilburg, The Netherlands: Tilburg University Press.
- Gong, Y., Wang, M., Huang, J.-C., & Cheung, S. Y. (2017). Toward a goal orientation-based feedback-seeking typology: Implications for employee performance outcomes. *Journal of Management*, 43(4), 1234–1260.

- Goodman, P. S. (1974). An examination of referents used in the evaluation of pay. *Organizational Behavior and Human Performance*, 12, 170–195.
- Grawitch, M. J., & Munz, D. C. (2004). Are your data nonindependent? A practical guide to evaluating nonindependence and within-group agreement. *Understanding Statistics*, 3(4), 231–257.
- Griffeth, R. W., & Hom, P. W. (2001). *Retaining valued employees*. Thousand Oaks, CA: Sage.
- Griffeth, R. W., Steel, R. P., Allen, D. G., & Bryan, N. (2005). The development of a multidimensional measure of job market cognitions: The Employment opportunity index (EOI). *Journal of Applied Psychology*, 90(2), 335–349.
- Hancock, J. I., Allen, D. G., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-Analytic Review of Employee Turnover as a Predictor of Firm Performance. *Journal of Management*, 39(3), 573–603.
- Hausknecht, J. P., & Holwerda, J. A. (2013). When does employee turnover matter? Dynamic member configuration, productive capacity, and collective performance. *Organization Science*, 24(1), 210–225.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable moderation, mediation, and conditional process modeling. Retrieved from <http://www.afhayes.com/spss-sas-and-mplus-macros-and-code.html>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and process analysis: A regression-based approach*. New York, NY: Guilford Press.
- Heavey, A. L., Holwerda, J. A., & Hausknecht, J. P. (2013). Causes and consequences of collective turnover: A meta-analytic review. *Journal of Applied Psychology*, 98(3), 412–453.
- Helgeson, V. S., & Mickelson, K. D. (1995). Motives for social comparison. *Personality and Social Psychology Bulletin*, 21(11), 1200–1209.
- Hernsberger, J. S., & Spiller, M. S. (2016). The role of status in imitative behavior: The influence of all-American security analysts on their peers. *Current Topics in Management*, 18, 81–100.
- Highhouse, S., Lievens, F., & Sinar, E. F. (2003). Measuring attraction to organizations. *Educational and Psychological Measurement*, 63(6), 986–1001.
- Hollister, M. (2011). Employment stability in the U.S. labor market: Rhetoric versus reality. *Annual Review of Sociology*, 37(C1), 315–324.

- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a Venture into the Future. *The Academy of Management Annals*, 2(1), 231–274.
- Hom, P. W., Lee, T. W., Shaw, J. D., & Hausknecht, J. P. (2017). One hundred years of employee turnover theory and research. *Journal of Applied Psychology*, 102(3), 530–545.
- Huberman, B., Loch, C. H., & Öncüler, A. (2004). Status as a valued resource. *Social Psychology Quarterly*, 67(1), 103–114.
- Hughes, E. C. (1958). *Men and their work*. Glencoe, IL: Free Press.
- Ibarra, H. (1992). Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly*, 37, 422–447.
- Ibarra, H. (1995). Race, opportunity, and diversity of social circles in managerial networks. *Academy of Management Journal*, 38(3), 673–703.
- Ibarra, H., & Andrews, S. B. (1993). Power, social influence, and sense making: Effects of network centrality and proximity on employee perceptions. *Administrative Science Quarterly*, 38(2), 277–303.
- Ilgén, D., & Feldman, J. (1983). Performance appraisal: A process focus. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 5, pp. 141–197). Greenwich, CT: JAI Press.
- Jacoby. (1997). *Modern manors: Welfare and capitalism since the new deal*. Princeton, NJ: Princeton University Press.
- Jiang, K., Liu, D., McKay, P. F., Lee, T. W., & Mitchell, T. R. (2012). When and how is job embeddedness predictive of turnover? A meta-analytic investigation. *The Journal of Applied Psychology*, 97(5), 1077–96.
- Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review*, 31(2), 386–408.
- Johnson, J. C., Borgatti, S. P., & Everett, M. E. (2013). *Analyzing social networks*. London: Sage Publications.
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustment to organizations. *Academy of Management Journal*, 29(2), 262–279.
- Kalleberg, A. L. (2009). Precarious work, insecure workers: Employment relations in transition. *American Sociological Review*, 74(1), 1–22.

- Kammeyer-Mueller, J., Wanberg, C., Rubenstein, A., & Song, Z. (2013). Support, undermining and newcomer socialization: Fitting in during the first 90 days. *Academy of Management Journal*, 56(4), 1104–1124.
- Kase, R. (2014). Social network research. In K. Sanders, J. A. Cogan, & H. T. J. Bainbridge (Eds.), *Research methods for human resource management* (pp. 52–73). New York, NY: Routledge.
- Katz, R. (1978). Job longevity as a situational factor in job satisfaction. *Administrative Science Quarterly*, 23, 204–223.
- Kelley, H. H. (1973). The process of causal attribution. *American Psychologist*, 28(2), 107–128.
- Krackhardt, D., & Porter, L.W. (1985). When Friends Leave: A Structural Analysis of the Relationship between Turnover and Stayers' Attitudes. *Administrative Science Quarterly*, 30, 242–261.
- Krackhardt, D., & Porter, L.W. (1986). The Snowball Effect: Turnover Embedded in Communication Networks. *Journal of Applied Psychology*, 71(1), 50–55.
- Kulik, C. T., & Ambrose, M. L. (1992). Personal and situational determinants of referent choice. *Academy of Management Review*, 17(2), 212–237.
- Lee, T. W., Hom, P. W., Eberly, M. B., Li, J., & Mitchell, T. R. (2017). On the next decade of research in voluntary employee turnover. *Academy of Management Perspectives*, 31(3), 201–221.
- Lee, T. W. & Mitchell, T. R. (1994). An alternative approach: The unfolding model of voluntary employee turnover, 19(1), 51–89.
- Lee, T. W., & Mitchell, T. R. (2011). An alternative approach: The unfolding model of voluntary employee turnover. *Academy of Management Review*, 19(1), 51–89.
- Leenders, R. T. A. J. (2002). Modeling social influence through network autocorrelation: Constructing the weight matrix. *Social Networks*, 24, 21–47.
- Levine, J. M., & Moreland, R. L. (1987). Social comparison and outcome evaluation in group contexts. In J. S. Masters & W. P. Smith (Eds.), *Social comparison, social justice, and relative deprivation: Theoretical, empirical, and policy perspectives* (pp. 105–127). Hillsdale, NJ: Lawrence Erlbaum.
- Levy, P. E., Albright, M.D., Cawley, B. D., & Williams, J. R. (1995). Situational and individual determinants of feedback seeking: A closer look at the process. *Organizational Behavior and Human Decision Processes*, 62(1), 23–37.

- Li, W., Zinbarg, R. E., Boehm, S. G., & Paller, K. A. (2008). Neural and behavioral evidence for affective priming from unconsciously perceived emotional facial expressions and the influence of trait anxiety. *Journal of Cognitive Neuroscience*, 20(1), 95–107.
- Lin, N. (1982). Social resources and instrumental action. In P. Marsden & N. Lin (Eds.), *Social structure and network analysis* (pp. 131–145). Beverly Hills, CA: Sage.
- Liu, S., Wang, M., Bamberger, P., Shi, J., & Bacharach, S. B. (2015). The dark side of socialization: A longitudinal investigation of newcomer alcohol use. *Academy of Management Journal*, 58(2), 334–355.
- Louis, M. R. (1980). Surprise and Sense Making : What newcomers experience in entering unfamiliar organizational settings. *Administrative Science Quarterly*, 25, 226–251.
- Lovelace, K., & Rosen, B. (1996). Differences in achieving person-organization fit among diverse groups of managers. *Journal of Management*, 22(5), 703–722.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83–104.
- Maertz, C. P., & Campion, M. A. (2004). Profiles in quitting: Integrating process and content turnover theory. *Academy of Management Journal*, 47(4), 566–582.
- March, J. G., & Simon, H. A. (1958). *Organizations*. New York, NY: John Wiley & Sons.
- Methot, J. R., LePine, J. A., Podsakoff, N. P., & Christian, J. S. (2016). Are workplace friendships a mixed blessing? Exploring tradeoffs of multiplex relationships and their associations with job performance. *Personnel Psychology*, 69, 311–355.
- Milkovich, G. T., & Boudreau, J. (1997). *Human resource management*. Chicago: Irwin.
- Miller, J., & Miller, M. (2005). Get a life! *Fortune*, 152(11), 109–117.
- Miller, V. D., & Jablin, F. M. (1991). Information Seeking During Organizational Entry: Influences, Tactics, and a Model of the Process. *Academy of Management Review*, 16(1), 92–120.
- Mitchell, T. R., Holtom, B. C., Lee, T. W., & Sablinski, C. J. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management J*, 44(6), 1102–1121.

- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62(2), 237–240.
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86(3), 493–522.
- Morrison, E. W. (1993). Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Academy of Management Journal*, 36(3), 557–589.
- Morrison, E. W. (2002). Newcomers' Relationships: the Role of Social Network Ties During Socialization. *Academy of Management Journal*, 45(6), 1149–1160.
- Morrison, E. W., & Bies, R. J. (1991). Impression management in the feedback-seeking process: A literature review and agenda. *Academy of Management Review*, 16(3), 522–541.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224–247.
- Ng, T. W. H., & Feldman, D. C. (2013). Changes in perceived supervisor embeddedness: Effects on employees' embeddedness, organizational trust, and voice behavior. *Personnel Psychology*, 66(3), 645–685.
- Osterman, P. (1999). *Securing prosperity*. Princeton, NJ: Princeton University Press.
- Pfeffer, J. (1991). Organization theory and structural perspectives on management. *Journal of Management*, 17(4), 789–803.
- Podolny, J. M. (2001). Networks as the pipes and prisms of the market. *American Journal of Sociology*, 107(1), 33–60.
- Podsakoff, P., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Porter, C. M., Woo, S. E., Allen, D. G., & Keith, M. G. (in press). How do instrumental and expressive network positions relate to turnover? A meta-analytic investigation. *Journal of Applied Psychology*.
- Porter, L., Steers, R. M., Mowday, R. T., & Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603–609.



- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavioral Research Methods*, 40(3), 879–891.
- Price, J. L. (1977). *The study of turnover*. Iowa State Press.
- Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. *Academy of Management Journal*, 24(3), 543–565.
- Price, J. L., & Mueller, C. W. (1986). *Absenteeism and turnover of hospital employees*. Greenwich, CT: JAI Press.
- Ramesh, A., & Gelfand, M. J. (2010). Will they stay or will they go? The role of job embeddedness in predicting turnover in individualistic and collectivistic cultures. *Journal of Applied Psychology*, 95(5), 807–823.
- Ridgeway, C. L. (2014). Why status matters for inequality. *American Sociological Review*, 79(1), 1–16.
- Rosenthal, T. L., & Zimmerman, B. J. (1978). *Social learning and cognition*. New York: Academic Press.
- Rubenstein, A. L., Eberly, M. B., Lee, T. W., & Mitchell, T. R. (2018). Surveying the forest: A meta-analysis, moderator investigation, and future-oriented discussion of the antecedents of voluntary employee turnover. *Personnel Psychology*, 71(1), 23–65.
- Saks, A. M., & Ashforth, B. E. (1997). Organizational socialization: Socialization: Making Sense of the Past and Present as a Prologue for the Future. *Journal of Vocational Behavior*, 51(2), 234–279.
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job design and task design. *Administrative Science Quarterly*, 23(2), 224–253.
- Schneider, B. (1987). The People Make the Place. *Personnel Psychology*, 40(3), 437–453.
- Shah, P. P. (1998). Who are employees' social referents? Using a network perspective to determine referent others. *Academy of Management Journal*, 41(3), 249–268.
- Shapiro, D. L., Hom, P. W., Shen, W., & Agarwal, R. (2016). How do leader departures affect subordinates' organizational attachment? A 360-degree relational perspective. *Academy of Management Review*, 41(3), 479–502.

- Shaw, J. D., Gupta, N., & Delery, J. E. (2005). Alternative conceptualizations of the relationship between voluntary turnover and organizational performance. *Academy of Management Journal*, 48(1), 50–68.
- Sluss, D. M., & Harrison, S. H. (2007). Socialization in organizational contexts. In G. P. Hodgkinson & J. K. Ford (Eds.), *International Review of Industrial and Organizational Psychology* (Vol. 22, pp. 1–70). Chichester: John Wiley & Sons.
- Soltis, S. M., Brass, D. J., & Lepak, D. P. (2018). Social resource management: Integrating social network theory and human resource management. *Academy of Management Annals*, 12(2), 537–573.
- Sproull, L., & Kiesler, S. (1986). Reducing social context cues: Electronic mail in organizational communication. *Management Science*, 32(11), 1492–1512.
- Squire, L. R., Knowlton, B., & Musen, J. (1993). The structure of organizational memory. In M. R. Rosenzweig, B. Knowlton, & J. Musen (Eds.), *Annual review of psychology* (pp. 453–495). Palo Alto, CA: Annual Reviews.
- Steers, R. M., & Mowday, R. T. (1981). Employee turnover and post-decision accommodation processes. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 3, pp. 235–282). Greenwich, CT: JAI Press.
- Suls, J., & Wills, T. A. (1991). *Social comparison: Contemporary theory and research*.
- Sunder, S., Kumar, V., Goreczny, A., & Maurer, T. (2017). Why do salespeople quit? An empirical examination of own and peer effects on salesperson turnover behavior. *Journal of Marketing Research*, 54(3), 381–397.
- Taylor, S. E., Neter, E., & Wayment, H. A. (1995). Self-evaluation processes. *Personality and Social Psychology Bulletin*, 21(12), 1278–1287.
- Tesser, A., Campbell, J., & Mickler, S. (1983). Self-evaluation maintenance and the perceptions of friends and strangers. *European Journal of Social Psychology*, 13(3), 217–233.
- Troster, C., Parker, A., Van Knippenberg, D., & Sahlmüller, B. The Coevolution of social network and thoughts of quitting. *Academy of Management Journal*.
- Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 15–40). Cambridge: Cambridge University Press.
- Uchitelle, L. (2006). *The disposable American: Layoffs and their consequences*. (1st ed.). New York: Knopf.

- Van Maanen, J. (1977). Experiencing organization: Notes on the meaning of careers and socialization. In *Organizational careers: Some new perspectives* (pp. 15–45). New York: Wiley.
- Wanous, J. (1973). Effects of a realistic job preview on job acceptance, job attitudes, and job survival. *Journal of Applied Psychology*, 58(3), 327–332.
- Wanous, J. P., Poland, T. D., Premack, S. L., & Davis, K. S. (1992). The effects of met expectations on newcomer attitudes and behaviors: A review and meta-analysis. *Journal of Applied Psychology*, 77(3), 288–297.
- Vardaman, J. M., Shannon, T. G., Allen, D. G., Gondo, M., & Amis, J. M. (2015). Translating intentions to behavior: The interaction of network structure and behavioral intentions in understanding employee turnover. *Organization Science*, 26(4), 1177–1191.
- Walker, M. E., Wasserman, S., & Wellman, B. (1993). Statistical models for social support networks. *Sociological Methods & Research*, 22(1), 71–98.
- Wang, M., Kammeyer-Mueller, J. D., Liu, Y., & Liu, Y. (2015). Context, socialization, and newcomer learning. *Organizational Psychological Review*, 5(1), 3–25.
- Wang, S., Dong, B., Si, S. X., & Dou, J. (2017). When it rains, it pours: A triple-pathway model of collective turnover based on causal mapping analysis. *Asia Pacific Journal of Management*, 34(2), 461–486.
- Waters, L. K., & Roach, D. (1971). Relationship between job attitudes and two forms of withdrawal from the work situation. *Journal of Applied Psychology*, 55(1), 92–94.
- Wellman, B. (1988). Structural analysis: From method and metaphor to theory and substance. In B. Wellman & S. D. Berkowitz (Eds.), *Social structures: A network approach* (pp. 19–61). Cambridge, UK: Cambridge University Press.
- Williamson, O. E. (1973). Markets and hierarchies: Some elementary considerations. *American Economic Review*, 63(2), 316–325.
- Wood, W. (2000). Attitude change: Persuasion and social influence. *Annual Review of Psychology*, 51, 539–570.
- Zimmerman, M. A., & Zeitz, G. J. (2002). Beyond survival: Achieving new venture growth by building legitimacy. *Academy of Management Review*, 27(3), 414–431.

## APPENDIX A

### Wave 1 Survey

Welcome! Please respond to the questions that follow.

Please indicate:

Your age: \_\_years

Your gender:

- Male
- Female

Your race/ethnicity:

- White (Caucasian)
- Black (African-American)
- Hispanic/Latino
- Asian/Pacific Islander
- Native American

Please indicate coworkers you interact with at work. An interaction may include anything from greetings in the hallway to daily interaction. Please list up to **10** coworkers.

Please answer the questions below pertaining to each of your coworkers.

Name 1=[Jane]

[Jane's] age: \_\_ years (best guess)

[Jane's] gender:

- Male
- Female

[Jane's] position

- Faculty
- Staff
- Supervisor

[Jane's] race/ethnicity:

- White (Caucasian)
- Black (African-American)
- Hispanic/Latino
- Asian/Pacific Islander
- Native American



[Jane] has beliefs about the way people should be treated that are similar to mine.

1	2	3	4	5
Strongly disagree				Strongly agree

Overall, [Jane] is similar to me.

1	2	3	4	5
Strongly disagree				Strongly agree

**Please indicate the extent to which [Jane] has engaged in each of these behaviors over the past year.**

*Organizational Deviance (3 items adapted from Bennett & Robinson, 2000)*

Put little effort in her work.

1	2	3	4	5
Strongly disagree				Strongly agree

Left work early without permission.

1	2	3	4	5
Strongly disagree				Strongly agree

Taken an additional or a longer break than is acceptable at your workplace.

1	2	3	4	5
Strongly disagree				Strongly agree

**Please respond to statements below by selecting the answer that best fits your degree of agreement with each statement.**

*Organizational Attractiveness (5 item scale, Highhouse, Lievens, & Sinar, 2003)*

	Strongly disagree			Strongly agree	
For me, [This] University is a good place to work.	1	2	3	4	5
I would not be interested in working for [This] University except as a last resort	1	2	3	4	5
[This] University is attractive to me as a place for employment.	1	2	3	4	5
I am interested in learning more about [This] University.	1	2	3	4	5
A job at [This] University is very appealing to me.	1	2	3	4	5

*Organizational Familiarity (6 item scale, Allen, Mahto, & Otondo, 2007)*

Prior to working with [This University], please indicate whether you have ever

\_\_\_\_  
No=0; Yes=1

- \_\_\_\_ 1. Heard of this organization.
- \_\_\_\_ 2. Worked for this organization.
- \_\_\_\_ 3. Studied this organization in class.
- \_\_\_\_ 4. Used the products or services of this organization.
- \_\_\_\_ 5. Known someone who worked with this organization.
- \_\_\_\_ 6. Seen advertisements for this organization.

*Perceived Ease of Movement (3 item Ease of Movement subscale from the Employment Opportunity Index, Griffeth, Steel, Allen, & Bryan, 2005)*

There are many jobs for people like me in today's market.

1	2	3	4	5
Strongly disagree				Strongly agree

Given my qualifications and experience, getting a new job would not be very hard at all.

1	2	3	4	5
Strongly disagree				Strongly agree

I can think of a number of organizations that would probably offer me a job if I was looking.

1	2	3	4	5
Strongly disagree				Strongly agree

*Conformity (2 item scale adapted Goldberg, 1999)*

I do what others do.

1	2	3	4	5
Not very true of me				Very true of me

I conform to others' opinions.

1	2	3	4	5
Not very true of me				Very true of me

*Job Satisfaction (3 item scale, Lovelace and Rosen, 1996).*

All in all I am satisfied with my job.

1	2	3	4	5
Not very true of me				Very true of me

If a good friend were interested in doing the same kind of work as I do, I would strongly recommend taking the same job I have.

1	2	3	4	5
Not very true of me			Very true of me	

If I had to decide all over again whether to take the job I have, I would decide without hesitation to take the same job.

1	2	3	4	5
Not very true of me			Very true of me	

*Organizational Commitment (3 item scale adapted from Mowday, Steers, & Porter, 1979).*

I would be very happy to spend the rest of my career with this organization.

1	2	3	4	5
Not very true of me			Very true of me	

I really feel as if this organization's problems are my own.

1	2	3	4	5
Not very true of me			Very true of me	

This organization has a great deal of personal meaning to me.

1	2	3	4	5
Not very true of me			Very true of me	



## APPENDIX B

### Wave 2 Survey

Please answer the questions below.

The following is a list of co-workers you indicated as interacting with at work. Indicate which, if any, are no longer employed with the organization.

**Answer the following questions about [Jane].**

Why do you think [Jane] left the job? (Indicate extent to which each of the following applies).

**\_\_Better options outside the company** (ex: a better job with another company in terms of salary, training, etc.)

1	2	3
Applies least	Neutral	Applies most

**\_\_Organizational concerns** (ex: job was unpleasant, found it hard to get along with coworkers or the supervisor, etc.)

1	2	3
Applies least	Neutral	Applies most

**\_\_Personal reasons** (ex: retirement, illness, family issues, moved, went back to school, etc.)

1	2	3
Applies least	Neutral	Applies most

**\_\_Fired/Laid Off** (ex: fired due to poor performance, poor attitude with the supervisor, poor attendance, etc.)

1	2	3
Applies least	Neutral	Applies most

**Please indicate the extent to which [Jane] has engaged in each of these behaviors over the past few months.**

*Organizational Deviance (3 items adapted from Bennett & Robinson, 2000)*

Put little effort in her work.

1	2	3	4	5
Strongly disagree				Strongly agree

Left work early without permission.

1	2	3	4	5
Strongly disagree				Strongly agree

Taken an additional or a longer break than is acceptable at your workplace.

1                      2                      3                      4                      5

Strongly disagree                      Strongly agree

*Pre-Quitting Behaviors (PQBs). (13 item scale, Gardener, Iddekinge, & Hom, 2018)*

Think of your behavior over the last 2 to 3 months and describe your level of agreement with each item below.

My work productivity has decreased more than usual.

1                  2                  3                  4                  5

**Strongly disagree                                      Strongly agree**

I acted less like a team player than usual.

[illegible]

I have been doing the minimum amount of work more frequently than usual.

1 2 3 4 5  
Strongly disagree Strongly agree

I have been less interested in pleasing my manager than usual.

1                  2                  3                  4                  5

**Strongly disagree                      Strongly agree**

I have been less committed to long-term timelines than usual.

	1	2	3	4	5
	Strongly disagree				Strongly agree

I have exhibited a negative change in attitude.

1                  2                  3                  4                  5

**Strongly disagree                                      Strongly agree**

I have exhibited less effort and work motivation than usual.

[illegible]

I have exhibited less focus on job related matters than usual.

1 2 3 4 5  
Strongly disagree Strongly agree

I have expressed dissatisfaction with my job more frequently than usual.

1 2 3 4 5  
Strongly disagree Strongly agree

I have expressed dissatisfaction with my supervisor more frequently than usual.

[illegible]

I have left early from work more frequently than usual.

[illegible]

I lost enthusiasm for the mission of the organization.

[illegible]

I have shown less interest in working with customers than usual.

	1	2	3	4	5
	Strongly disagree				Strongly agree

**Please respond to statements below by selecting the answer that best fits your degree of agreement with each statement.**

*Organizational Attractiveness (5 item scale, Highhouse, Lievens, & Sinar, 2003)*

	Strongly disagree			Strongly agree		
For me, [This] University is a good place to work.	1	2	3	4	5	
I would not be interested in working for [This] University except as a last resort	1	2	3	4	5	
[This] University is attractive to me as a place for employment.	1	2	3	4	5	
I am interested in learning more about [This] University.	1	2	3	4	5	
A job at [This] University is very appealing to me.	1	2	3	4	5	

*Search Behavior (4 item scale adapted from Blau, 1993)*

I spent a lot of time looking for a job alternative in the last 6 months.

1                      2                      3                      4                      5  
Strongly disagree                      Strongly agree

I devoted much effort to looking for other jobs in the last 6 months.

1 2 3 4 5  
Strongly disagree Strongly agree

I focused my time and effort on job search activities in the last 6 months.

1                  2                  3                  4                  5  
Strongly disagree                                      Strongly agree

I gave my best effort to find a new job outside the university in the last 6 months.

	1	2	3	4	5	
	Strongly disagree				Strongly agree	

*Organizational Commitment (3 item scale adapted from Mowday, Steers, & Porter, 1979).*

I would be very happy to spend the rest of my career with this organization.

1 2 3 4 5  
Not very true of me Very true of me

I really feel as if this organization's problems are my own.

1 2 3 4 5  
Not very true of me Very true of me

This organization has a great deal of personal meaning to me.

1 2 3 4 5  
Not very true of me Very true of me