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LOYOLA UNIVERSITY CHICAGO

SOCIAL LEARNING OF EMPLOYEE ENGAGEMENT

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN APPLIED SOCIAL PSYCHOLOGY

BY

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CHICAGO, ILLINOIS

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Finally, I want to thank my husband and best friend, Rohit Srivastava – we're one, but we're not the same...I thank him for carrying me every day.

For my Raina Baina.
You are my heart.

Even those who are highly self-assured will raise their efficacy beliefs if models teach them even better ways of doing things.

-Albert Bandura, *Self-Efficacy: The Exercise of Control*

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ABSTRACT

The influence of coworkers on workplace attitudes and behaviors is a well-researched and established occurrence in organizational psychology. Given that many of these relationships may be bi-directional, social learning theory is a fitting lens to examine these connections. One construct that consistently surfaces as a prominent topic in organizational research is employee engagement. The aim of this research was to investigate how social learning theory may be applied to the relationship between engagement levels of role models and observing employees. Results revealed some truly validating insights, primarily confirming the influence of coworkers on employee engagement. Model type (i.e., manager vs. non-manager) as well as relationship satisfaction were explored and added some contextually mixed evidence to what was postulated. Additionally, the interactions of energy, enablement and self-efficacy within the model-observer engagement relationship were corroborated – albeit, in a condition contrary to the hypothesis, but with significant implications nonetheless.

CHAPTER ONE

INTRODUCTION

As social beings, people learn a great deal from each other regarding how to think, feel, and behave about everything around them. According to Albert Bandura's social learning theory (1977), people learn most things by watching and imitating others. This "observational learning" allows one to process complex information more robustly and efficiently than by personal, direct learning. As such, social learning has the power to disseminate positive thought and action, creating a capacity for optimism, self-efficacy and the betterment of humanity and the world. However, learned attitudes and behaviors can also contribute to the spread of negative consequences, such as prejudice, apathy and aggression. With such comprehensive influence, social learning theory can be applied in almost any social context, including the workplace.

Organizational research reveals compelling social learning effects for coworker influence (both supportive and antagonistic) on employee work outcomes. Zagenczyk & Murrell (2009) found that giving and receiving advice in the workplace leads to greater job involvement and that receiving advice in particular improves work group commitment. Supportive coworker relationships are strongly linked with better role perceptions, improve job satisfaction and involvement, and lead to greater commitment to one's organization. On the flipside, coworker behaviors are also related to withdrawal

behaviors, such as absenteeism, turnover intent and general reduction in effort. (Chiaburu & Harrison, 2008) As it turns out, our coworkers have the power to make or break our workplaces so research on these lateral relationships is essential to creating interventions that improve the workplace environment and work outcomes overall.

With such important effects in the balance, organizational psychologists are extremely interested in the implications of how employees learn work attitudes and behaviors, how leaders can encourage social learning that results in positive workplace outcomes, and how to reduce and/or offset destructive social learning in a work environment. If developed appropriately, social learning practices have the potential of vastly improving organizational effectiveness. For example, organizations might benefit a great deal from leveraging research on workplace social learning when fostering mentoring relationships within their work groups. Additionally, social learning research shows us the value of focusing on employee self-efficacy in an effort to improve overall employee attitudes and motivation with regard to performance and commitment. Finally, leaders could (and should!) capitalize on positive social learning that is already occurring in their workgroups.

One construct that is measured by many organizations and that has been linked to various improvements in financial and operational outcomes is employee engagement. Relatively new to the organizational psychology field, employee engagement loosely refers to a motivational state in which employees feel a connectedness to their work wherein they are driven to perform above and beyond what is required in order to help their organization succeed (Gebauer, Lowman & Gordan, 2008). Although there is disagreement surrounding the definition, structure and measure of employee engagement,

organizational researchers do agree on the importance of this concept. As defined and measured for the current study, employee engagement has been linked to productivity, customer service, absenteeism and turnover (Towers Watson, 2012). This study applies social learning theory (Bandura, 1977) to the transmission of employee engagement, examining whether and how employees learn engagement by observing and imitating role models in the workplace.

Per social learning theory (Bandura, 1977), role models are especially influential the more an observer connects with them and/or wishes to fit into their social group. In the case of organizations, employees tend to develop their own informal ties to individuals whom they wish to emulate in an effort to master skills and progress in their careers. This research sought to demonstrate a relationship between the engagement of self-selected role models and the engagement of the selecting employees themselves, using employee engagement survey data from a large, multi-national organization. Based on existing research, it was proposed that simply identifying a role model has beneficial impact on employee engagement. Furthermore, it was posited that engagement scores for employees who identify a role model are predicted by the engagement levels of the models and that those viewed as role models by multiple employees are more influential, and therefore have a stronger effect on engagement. Additionally, this research reviewed the impact of model-observer similarity by investigating relationships where observers chose their managers as role models. It was hypothesized that managers make more influential role models and that this relationship was moderated by observers' satisfaction with their managers. Finally, based on Bandura's conceptual framework of social

learning (1977), the relationship of model-observer employee engagement was reviewed under the lens of personal, environmental, and agentic (namely, self-efficacy) factors.

CHAPTER TWO

LITERATURE REVIEW

Social Cognitive Learning Theory

Over the ages, many theories about learning and development have been proposed to shed light on human behavior. Until the 1970s, most behavior researchers shared the popular view that individual determinants alone – needs, drives, impulses – best explained why and how people behave the way they do. There were challenges to these prevailing theories, both in structure and observation. Conceptually, the behavioral determinants were generally derived from the observed behaviors themselves. Furthermore, these personality theories explaining behavior largely disregarded human response to diverse environmental factors. Moreover, the clearest empirical limitation of these theories was their lack of predictive power. On the other end of the spectrum, in an effort to disavow the notion that inner determinants above all drive behaviors, some researchers instead shifted focus exclusively to external influences, particularly human responsiveness to the environment. These theorists demonstrated time and again that behavioral response patterns previously attributed to underlying forces could be manipulated and altered based on environmental factors. In spite of overwhelming empirical evidence, however, the notion that human behavior was merely a product of external forces was not well-received. (Bandura, 1977)

Generally speaking, most long-standing socio-cultural beliefs are difficult to contradict, especially when they are firmly-ingrained and widely accepted in the scientific community. However unsubstantiated, the notion that individual personality traits determined consistent behavioral patterns regardless of social influences was difficult to shake. Some people felt that saying otherwise implied that people were nothing but reactors to their environments, easily swayed into action by rewards and/or consequences. In cases of more extreme proponents of environmental determinants, one valid criticism was that these researchers failed to acknowledge any cognitive determinants of behavior at all. (Bandura, 1977) If people do not possess any control over their actions, how are we to consider ourselves thinking, feeling beings with the power to determine (at least somewhat) our own destinies?

As such, Albert Bandura's social cognitive learning theory is perhaps one of the most landmark of its kind, serving as a bridge between the behaviorist and cognitive perspectives. According to Bandura (1977), people learn most new information, attitudes and behaviors by watching and imitating others – known as modeling or observational learning. This observation of others' actions and consequences could be direct or vicarious, but either way, it allows a person to process unlimited and complex patterns of behaviors and outcomes in a way that would simply not be possible with firsthand experiential learning. Bandura (1977) identified three main ways in which modeling may influence the transmission of information to observers: live demonstration, verbal instruction, and symbolic modeling. In a series of famous modeling experiments, Bandura, Ross, & Ross (1961) demonstrated that children both learned and imitated

aggressive behavior by watching adults behave aggressively toward a Bobo doll. Not only was the behavior reproduced in the presence of the aggressive models, but even when children were put in new situations (absent of the model), they demonstrated imitative learning:

...subjects given an opportunity to observe aggressive models later reproduced a good deal of physical and verbal aggression (as well as nonaggressive responses) substantially identical with that of the model. In contrast, subjects who were exposed to nonaggressive models and those who had no previous exposure to any models only rarely performed such responses. (Bandura et al., 1961, p. 580)

As exhibited in the Bobo doll experiments, live modeling is especially impactful for young children who tend to learn the most about their environments through direct observation. However, “as linguistic skills are developed, verbal modeling is gradually substituted for behavioral modeling as the preferred mode of response guidance” (Bandura, 1977, p.39). Verbal and written instructions can be much more effective as we are able to describe in words a multitude of behaviors that are not always convenient or efficient to demonstrate live. Finally, Bandura (1977) underscored the significance of symbolic models. Even in the 1970s, Bandura appreciated the great role that communication technology (i.e., television and films) was playing in the area of social learning:

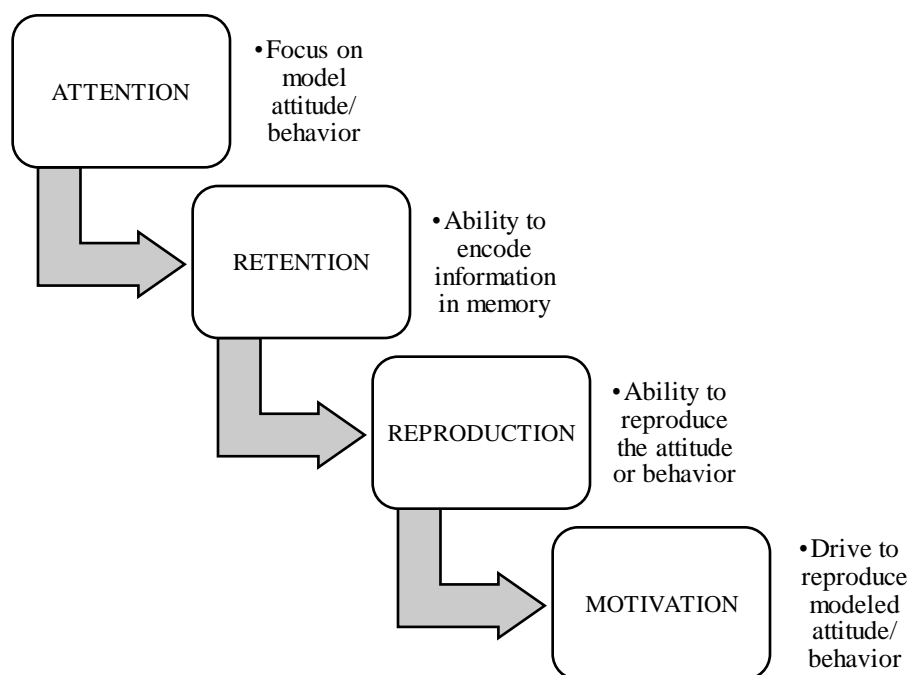
It has been shown that both children and adults acquire attitudes, emotional responses, and new styles of conduct through filmed and televised modeling. In view of the efficacy of, and extensive public exposure to, televised modeling, the mass media play an influential role in shaping behavior and social attitudes. (Bandura, 1977, p.39)

Bandura (1977) explained that the symbolic modeling was especially influential due to its “tremendous multiplicative power” (p.39). Unrestricted by the constraints of live or even

verbal modeling, visual media has the ability to reach out to millions in widespread locations all over the world. Symbolic modeling is even more powerful in the present, where the capacity of communication technology has reached a scope of transmission that is both instant and relevant to the observer, as he or she (in most cases) has a pre-defined network of individuals from whom information is being learned. For example, on social media sites, we are generally linked to people we deem important (friends, family, peers) and these people share ideas and information that certainly will influence our own, and vice-versa.

However, Bandura (1977) also explains that observation is not the only factor in social learning and may not always result in modeling or a change in attitudes or behavior. According to Bandura (1977), observational learning depends on four component processes – attention, retention, reproduction and motivation:

Figure 1. Component Processes of Observational Learning



From an early age, we realize that in order to learn something effectively, you have to pay attention to it. It would be presumptuous to think that just because one is exposed to a modeled attitude or behavior, one would automatically learn and form the modeled attitude/behavior. Several factors influence whether a person even pays attention to a model. For one thing, an observer will likely pay more attention if he/she relates to the model. This could be prompted by characteristics of the observer as well as the model. Is the model attractive or similar to the observer? Does the observer respect or admire the model? Is the model in a position of power – social, political, relational? The observer’s attitudes and expectations about the model as well as the observer’s state of emotional arousal also play significant roles in the attention process.

The next process in successful observational learning is retention. Observers must accurately recognize, encode and store the modeled attitudes and/or behaviors in their memories in order to effectively demonstrate these later. Most behaviors are encoded into

memory through imaginal and/or verbal representation. Bandura (1986) explains that “observational learning and retention are aided by symbolic transformations because they carry a great deal of information in an easily remembered form” (p. 56). Imagery tends to be activated via sensory stimulation and is especially important in early development (when verbal skills are not very strong) or when a behavior is not easily verbally coded (such as certain facial expressions). The vast majority of behaviors, however, involve some type of verbal coding – instructions, descriptions, directions – that can be stored and later recalled. For example, it is much more efficient to provide driving directions with step-by-step navigation than by recreating a visual image of the route. Rehearsal also plays a role in retention. Learned attitudes and behaviors that are practiced by the observer (even mentally) are more likely to stay ingrained in memory than those that are not performed or thought about by the observer at all. Some researchers use this as a basis for distinction between imitation (an attitude or behavior that is simply repeated shortly after observation and/or in the presence of the model) versus delayed modeling, which clearly demonstrates cognitive representation and retrieval of the modeled information. It is this delayed modeling that is considered to be truly learned.

The third process in observational learning is reproduction. This component entails taking the imaginal and verbal representations encoded in memory and successfully translating them into modeled behaviors:

Behavioral reproduction is achieved by organizing one’s responses spatially and temporally in accordance with the modeled patterns. For purposes of analysis, behavioral enactment can be separated into cognitive organization of responses, their initiation, monitoring, and refinement on the basis of informative feedback. (Bandura, 1977, p.27)

In essence, one has to have the basic skills and knowledge required to reproduce the desired behavior correctly. If there is a deficit, a person would then need to refine the skill through practice and/or repetition. Most behaviors, particularly if new to the observer, will require a certain amount of practice, feedback and adjustment.

Finally, even if all three initial processes are successfully achieved, an observer still may not reproduce a modeled attitude or behavior. Generally speaking, people are more motivated to adopt modeled attitudes or behaviors if these result in something that the observer finds rewarding. Unrewarding attitudes and behaviors and/or those that result in negative consequences tend not to provide any incentive for observers to reproduce. Additionally, internal motivators, such as alignment with one's prevailing attitudes and behaviors, will also impact whether a person wants to observe and/or learn something in the first place. In a social learning study with young girls, Hicks (1971) found that enactment of observed play behaviors were correlated with existing attitudes toward the behavior(s):

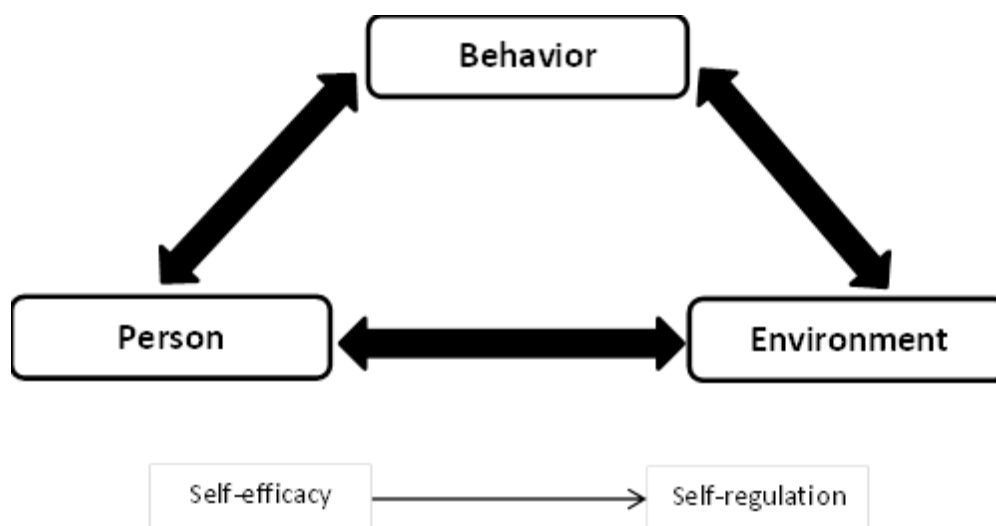
When a child behaves according to internal standards of behavior, positive self-evaluations are effected. Performance which does not match or exceed these standards produces negative self-evaluative reactions. Also, when the child's evaluative cognitions are of a sign opposite that of his behavior, it is expected that the child will experience considerable dissonance. Therefore, in the absence of any countermanding external conditions, it is possible that the girls chose those behaviors to imitate which were attitude consonant in order to maximize positive self-reinforcements or maintain cognitive consonance. Those behaviors which were attitude discrepant may have been inhibited in order to forestall or minimize the aversive stimulation which would have been produced by cognitive dissonance. (p. 145)

Similarly, people may be more motivated to model observed attitudes when these attitudes are in-line with other existing attitudes. For example, people may acquire their peers' attitudes about out-group members in order to fit in better with their in-group

members. In this case, attitudes meeting the expectations of one's social groups are rewarded and those that violate these norms are likely punished (Bohner & Wanke, 2002). Essentially, the more one desires to fit in with a particular group and the more one identifies with models in that group, the more likely observational transmission of attitudes will occur.

In addition to the observational learning process, Bandura (1977) also firmly supports an important role for personal and environmental factors in social learning:

Figure 2. Triadic Factors of a Social System



He maintains that people do not operate in isolation, but instead are the products *and* producers of their social systems:

In the social cognitive view, people are neither driven by inner forces nor automatically shaped and controlled by external stimuli. Rather, human functioning is explained in terms of a model of triadic reciprocity in which behavior, cognitive and other personal factors, and other environmental events all operate as interacting determinants of each other. (Bandura, 1986, p.18)

Embedded within this triadic model of bidirectional influences is the notion of personal agency. Bandura (2001) developed the idea of cognitive control into an agentic

perspective of social learning, arguing that the 'essence of humanness' is contained in a 'capacity to exercise control over the nature and quality of one's life' – known as agency. People exhibit agency through developing intentions and thought before events; self-regulation through self-reaction; and self-reflectiveness about one's capabilities, performance, and the meaning and purpose of what one does in life. A key concept in developing agency is self-efficacy. Bandura (2001) states:

Among the mechanisms of personal agency, none is more central or pervasive than people's beliefs in their capability to exercise some measure of control over their own functioning and over environmental events. Efficacy beliefs are the foundation of human agency. Unless people believe they can produce desired results and forestall detrimental ones by their actions, they have little incentive to act or to persevere in the face of difficulties. Whatever other factors may operate as guides and motivators, they are rooted in the core belief that one has the power to produce effects by one's actions. (p. 10)

Therefore, developing beliefs in one's own self-efficacy is an essential first step to developing people's control with regard their social cognitive system.

Peers and the Workplace

Anecdotally speaking, most people would agree that their social environment at work is important, and that their coworkers often influence their attitudes and behaviors in the workplace. Organizational research has demonstrated, through a number of studies, correlations within groups of employees, small and large, of job-related evaluations and outcomes. In fact, most business leaders depend on such trends to provide insights on where in their organizations to implement action plans for improvement and/or maintenance of specific attitudes and behaviors. Organizations have attempted to harness the benefits of the social environment by employing structures to increase social contact and cooperation:

Flatter organizational structures and increased team-based work translate into more frequent and more meaningful lateral interactions. Again, in the United States, 82% of companies with 100 or more employees use teams; 90% of U.S. employees spend at least part of their work days in teams (Cascio, 1998; Gordon, 1992). The trend is also rising in the European Union, with more than half of the countries reporting at least 55% teamwork (European Foundation for the Improvement of Living and Working Conditions, 2007). Likewise, the shift of job content from steady and routine individual tasks to more complex and collective tasks (Harrison, Johns, & Martocchio, 2000) has enhanced coworkers' salience and their potential influence. (as cited in Chiaburu & Harrison, 2008, p. 1082)

Unfortunately, much of the empirical evidence about the influence of coworkers is still inconsistent and fragmented.

Bandura's social learning theory (1977) provides a comprehensive model for the professional adult learning process:

[Social learning theory/Social cognitive theory], although applicable to learning in all age groups, is shown to be especially relevant to adult learning, as it helps to explain the modeling function of observational learning; emphasizes the interaction of the person, behavior, and environment; and accounts for motivational aspects of learning. (Gibson, 2004, p.199)

Unlike younger research populations, adults generally possess the cognitive skills necessary to successfully complete the observational learning process. Additionally, the motivation to observe, learn and model others is especially high within the organizational context. Employees are drawn to others who are competent, encouraging and successful as these are valued outcomes and therefore, strong incentives for observational learning (Weiss, 1978). In fact, once employees know whom they wish to model in the organization, they willfully pay close attention to the values, attitudes and behaviors of these role models. This determined focus also aids significantly in the retention and reproduction processes, as observers actively take notes and study the model's attitudes and behaviors, followed by constant rehearsal and adjustment until acceptable modeling

is achieved. One determinant of social learning that is still a contingency for adults is perceived self-efficacy. Particularly within the organizational research field, one's perception about ability is a key motivator for active learning.

Observational learning seems to be a fitting model to examine the transmission of employee attitudes and behaviors, given that "coworker attitudes have been found to influence antisocial behavior (Robinson & O'Leary-Kelly, 1998), attitudes toward layoff survivors (Brockner et al., 1997), and coworker prosocial behavior has been found to influence positive affectivity (George, 1990; George & James, 1993)" (as cited in Bommer, Miles & Grover, 2003, p.182). It stands to reason that coworkers use social learning as a means to occupational success as well as survival within an organization. As already noted, these motivations make social learning especially important within organizations as employees are constantly looking to model behaviors and attitudes to aid in their performance. Bommer et al. (2003) looked at the social transmission of organizational citizenship behavior (OCB) – or a willingness to go the extra mile in one's job – and found strong evidence for a link between the OCB levels of one's workgroup and individuals' OCB level. Additionally, they found that this relationship was moderated by consistency of OCB display across coworkers, namely, the more coworkers displayed OCB within a group, the greater the individual OCB level. Finally, given the reciprocity of this learning per Wood & Bandura's (1989) social cognitive model, attitudes and behaviors within a work-group are likely to shift and multiply rapidly with ongoing employee-social context interactions:

the current study suggests that when employees engage in OCB, they foster the occurrence of OCB among coworkers. This suggests that introducing a few 'good citizens' into a setting may stimulate increased OCB among the existing

workgroup members. On the negative side, however, our findings would also suggest that the departure of a few 'good citizens' from a group (thereby decreasing the average citizenship level in the group) could be associated with a downward spiral where the remaining group members are less likely to perform OCB because the group dynamic has shifted. (Bommer et al., 2003, p. 193)

Based on these findings, a practical implication for organizations would be to identify these 'good citizens' and empower them further to be successful, positive role models within work groups.

At this point, it should be noted that Bandura's agentic perspective on social learning may be an important factor in the determination of effective model-observer relationships. Many organizations expend a great deal of effort in designing formal mentoring programs to provide their employees with learning opportunities since studies on informal work mentors have shown mentored employees report better work outcomes (as cited in Ragins, Cotton, & Miller, 2000):

Comparisons of nonmentored and mentored individuals yield consistent results: compared to nonmentored individuals, individuals with informal mentors report greater career satisfaction (Fagenson, 1989), career commitment (Colarelli & Bishop, 1990), and career mobility (Scandura, 1992). Informal proteges also report more positive job attitudes than nonmentored individuals. (cf. Dreher & Ash, 1990; Koberg, Boss, Chappell, & Ringer, 1994; Mobley, Jaret, Marsh, & Lim, 1994; Scandura, 1997)

However, in a study on formal mentors, Ragins et al. (2000) found that *satisfaction* with these mentoring relationships was a better predictor of work attitudes than the mere existence of a mentor:

Individuals in highly satisfying mentoring relationships reported more positive attitudes than nonmentored individuals, but the attitudes of those in dissatisfying or marginally satisfying relationships were equivalent to those of nonmentored individuals. In some cases, nonmentored individuals expressed more positive attitudes than protégés in dissatisfying relationships. (p. 1190)

Furthermore, they found that women in particular expressed greater dissatisfaction with formal mentoring relationships than men, as well as less commitment to their jobs. This is a critical finding since many organizations target female employees specifically for formal mentoring programs in an effort to provide development and growth opportunities to a historically underrepresented population. Clearly, not all mentors (or mentoring relationships) are created equal, and a “good” versus “bad” mentor could very well mean the difference between improving the attitudes of your workforce and creating destructive outcomes instead. How then should an organization go about selecting the right mentor-protégé fit? The short answer – they should not. Instead, it seems that organizations would benefit from paying attention to those individuals whom employees identify as mentors on their own as these informal relationships seem to function more effectively. Essentially, when employees seek out their own mentors, they tend to reap greater benefits from positive relationships (i.e., greater organizational commitment and more positive workplace attitudes) and are much more likely to dissolve dysfunctional relationships that may lead to poor outcomes on their own. (Ragins et al., 2000)

Some noteworthy research which relates well to this area is the work on employee popularity. Scott & Judge (2009) found that employees’ positive self-evaluations and central positioning within work communication paths were associated with popularity. Additionally, their studies demonstrated that coworkers provided reliable agreement on the popularity of specific employees. These popular employees were also found to be the recipients of more favorable treatment as well as fewer counterproductive work behaviors from their coworkers. Cullen, Fan & Liu (2014) also drew on this research to investigate political skill and interpersonal mistreatment in the workplace:

Political skill is defined as “the ability to effectively understand others at work, and to use such knowledge to influence others to act in ways that enhance one’s personal and/or organizational objectives” (Ferris et al., 2005: 127). Thus, individuals who differ in their political skill also differ in their ability to influence others to achieve workplace outcomes. Politically skilled employees have a better understanding of social interactions, including what others want or need and how others will react to their behavior (Ferris et al., 2005). Politically skilled employees are also better at adjusting their behavior in order to receive favorable responses from others. (p. 1763)

They found that not only was employee popularity associated with political skill, it mediated the relationship between this skill and interpersonal mistreatment. If popular employees demonstrate greater political skill and subsequently, greater influence on coworkers, it would make sense that these employees would also be informally looked up to as mentors by many.

As such, the first step in role model empowerment within an organization seems to be paying attention to which employees are the most influential and what kinds of relationships they maintain with other employees. The two most common social connections in organizations are friendship ties and advice ties (Gibbons, 2004). Friendship ties comprise emotional expression, social support and personal identity, and fitting in and might also include people one sees socially outside of work. Advice ties, on the other hand, are with people one considers important sources of professional advice, and whom one would consult for job-related problems or decisions (Ibarra & Andrews, 1993). Although there is some evidence of work friends sometimes developing similar work-related perceptions (Zagenczyk, Gibney, Murrell & Boss, 2008), there is much more support for the impact of advice ties on organization-related employee attitudes. In a study on work-related attitudes in an advertising firm, Ibarra and Andrews (1993) found that advice and friendship networks in the organization shaped job-related perceptions

more than individual characteristics or formal hierarchies, although the advice networks yielded stronger correlations. In a subsequent study with investment bankers and management consultants, Ibarra (1999) showed that employees looking to advance to management positions turned to coworkers they admired (advice ties) in order to observe and learn the behaviors, attitudes and perceptions that were contributing to their success. Observers were then adopting these attitudes and behaviors into their own values in order to achieve success as well. Finally, Zagenczyk et al. (2008) looked at the impact of work friends and advisors on OCB, revealing that OCB levels were correlated for employees and their advisors, but not for employee friend networks. This evidence falls completely in line with Bandura's (1977) assumptions about the importance of the observer-model relationship to observational learning. In the case of organizations, the ultimate goal of employees is to succeed and advance in their jobs. As such, they will want to model the attitudes and behaviors of those that are in a position of power and success: "Advisors are respected for their knowledge of their job and the organization. Advisors' knowledge and access to information make their opinions regarding the actions of the organization salient" (Zagenczyk et al., 2008). This research in no way downplays the significance of friendship ties in the workplace – workplace friends are essential sources of support and enable open and honest communication, which is fundamental to organizational change (Gibbons, 2004). However, when it comes to social learning of essential organizational values and attitudes, advisors appear to be the target role-models employees consult. If organizations can pinpoint these instrumental advisors, they can then enable them with the time and resources to continue modeling their positive workplace attitudes.

Once the role models are identified and empowered, the next step in facilitating successful social learning of employee attitudes is maintaining and/or improving employees' self-efficacy in the given area. Self-efficacy, or perceptions about one's capacity to complete a goal or task, is an important factor in learning by itself, but also because of its bearing on other social cognitive determinants:

Such beliefs influence whether people think pessimistically or optimistically and in ways that are self-enhancing or self-hindering. Efficacy beliefs play a central role in the self-regulation of motivation through goal challenges and outcome expectations. It is partly on the basis of efficacy beliefs that people choose what challenges to undertake, how much effort to expend in the endeavor, how long to persevere in the face of obstacles and failures, and whether failures are motivating or demoralizing. (Bandura, 2001, p.10)

Empirical evidence has shown self-efficacy to influence the level of integration people allocate for training within their work, which role models employees select (typically those believed to align with their own skills and abilities), and in which areas employees wish to exert effort to continue learning (Gibbons, 2004). These choices in turn may impact motivation to learn. Therefore, employees with high perceived self-efficacy will likely persevere in their learning endeavors, even in the face of challenges and/or obstacles. Consequently, organizational social learning would be especially successful if observers are given feedback (both confidence-boosting as well as constructive notes to improve competence) and provided ample time and resources for cognitively demanding tasks (i.e, learning new technologies).

Employee Engagement

Employee engagement is a relatively new construct and, in spite of its somewhat ambiguous origins within human resource consulting firms, has progressed from a corporate buzzword to an important concept in organizational research. Informally,

engagement represents a willingness and ability to go the extra mile in one's job which is driven by an emotional and rational connectedness to his/her organization. Engagement is believed to drive bottom-line organizational results, and has been linked to outcomes such as more loyal and satisfied customers, higher revenue and profit, and greater organizational efficiency (Macey & Schneider, 2008).

As there has been much debate about the precise definition of employee engagement, as well as its antecedents, there are numerous research perspectives that entail various theories, measures, and outcomes of engagement. Macey and Schneider (2008) note that many HR professionals began measuring engagement by clumping together various work attitudes rather unsystematically, relying more on prior applied research than theoretical testing. These practitioners assumed that grouping attitudes that had been previously correlated with improving productivity and retention (i.e., commitment, involvement, effort, etc.) would eventually lead them to a viable measure of engagement from which they could advise customers on improving and/or leveraging behaviors that impacted organizational effectiveness:

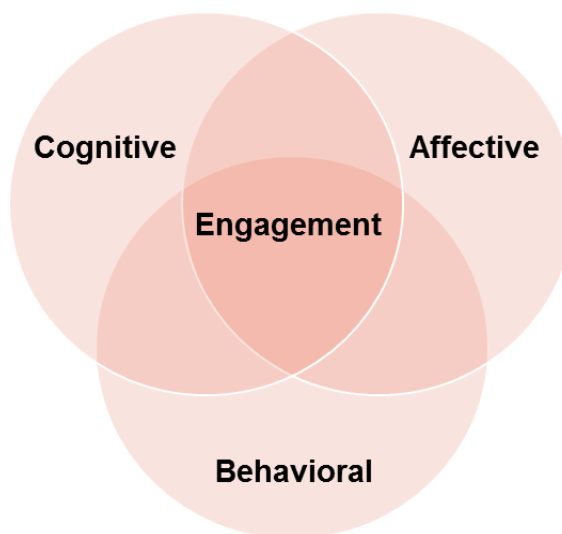
This is a matter of particular significance to those who develop and conduct employee surveys in organizations because the end users of these products expect interpretations of the results to be cast in terms of actionable implications. Yet, if one does not know what one is measuring, the action implications will be, at best, vague and, at worst, a leap of faith. (Macey & Schneider, 2008, p. 4)

In line with prevailing organizational psychology research, Towers Watson's view on Engagement has evolved over the years from attitudinal measures of work satisfaction to a notion of organizational commitment to a tripartite measure of what is called "traditional engagement". Traditional engagement is a motivational state measured via self-evaluation of one's connectedness to his/her company that is comprised of job-

related beliefs, feelings and/or behaviors, and is portrayed by the following model

(Kulesa, 2012):

Figure 3. Components of Traditional Engagement



Most recently, the firm has looked at the benefits of expanding from a commitment-based model to inclusion of well-being and enablement components (Kulesa, 2012):

Figure 4. Evolution of Engagement Research



The need for this expanded concept has developed from new strains found in organizations attributed to harsher economic times, uncertain markets, and a general need to do more with less (Kulesa, 2012):

Table 1. New Business Conditions (Towers Watson, 2011)

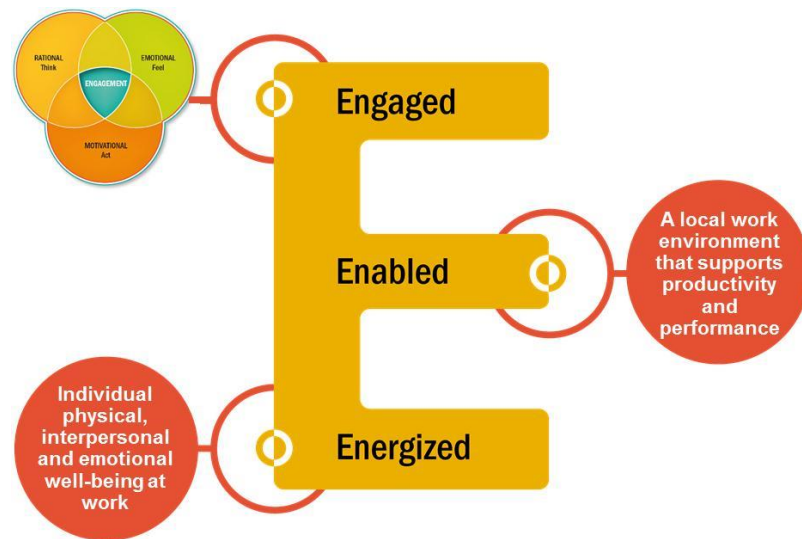
Work Demands	65% of employers indicate that employees have been working more hours than normal over the past three years
	53% expect this to continue over the next three years
	Among employees, these trends parallel perceptions among professional staff:
	-57% of senior and middle managers say employees have been working more hours than normal
	-47% expect that trend to continue
Stress & Retention	The prospect of reducing work-related stress is a top reason employees would consider working for a different organization
Attraction of Top Talent	59% of employers say they have difficulty attracting critical skill employees
	42% report difficulty attracting top-performing staff

In a global workforce study, Towers Watson (2012) found that companies' actions to improve engagement within their workforces were falling short due to gaps in two critical areas of the workplace experience: "effectively enabling workers with internal support, resources and tools" and "creating an environment that's energizing to work in because it promotes physical, emotional and social well-being" (p.4). The firm decided to create and test a 3-component model of engagement that incorporated these areas:

At the start of the research, 30 questions were included to support the development of a measurement model tapping into traditional engagement, enablement, and well-being (what we call energy). Traditional engagement questions focus on affective commitment to the organization, belief in organizational goals, and willingness to exert extra effort to help the company succeed. Enablement questions focus on employee capability to excel, including freedom from obstacles on the job and the perception that the work environment supports exceptional performance. Energy questions focus on perceived physical capacity and social supports to excel. (Kulesa, 2012, p.1)

The model was validated in a global workforce study spanning employees in 22 countries using exploratory factor analysis and structural equation modeling. Compelling empirical results showed support for the hypothesized 3-component model, with 10 indicators (see Appendix A) showing the strongest links to these variables (Kulesa, 2012):

Figure 5. Towers Watson Model of Sustainable Engagement



Evidence from this research suggested that incorporating these additional factors in consideration of improving engaged attitudes and behaviors results in higher operating margins for organizations (nearly triple), increased productivity, less absenteeism, and less turnover intent (Towers Watson, 2012). It would seem that that individual and environmental factors are essential to truly sustaining an engaged workforce – hence the new model is known as sustainable engagement.

CHAPTER THREE

CURRENT STUDY

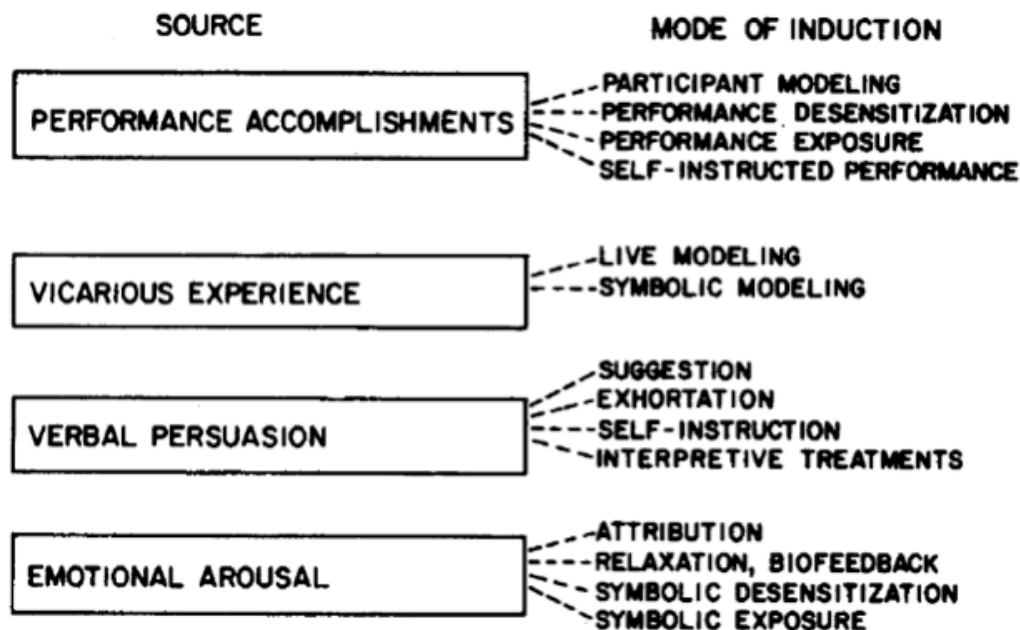
Conceptual Framework

Due to the “bottom-up” origins of employee engagement, it has been a long journey to measuring the construct in a well-defined and meaningful way. As the central variable of this study, a clear definition and framework of engagement is critical to the research results. The research in this proposal sought to examine the impact of co-worker relationships on “traditional” engagement, as defined by the Towers Watson (2012) view, and supported by Bandura’s tripartite structure of social learning - a sustainable motivational state, within the context of personal and environmental factors.

Additionally, where applicable, the quality of the model-observer relationship was tested as a part of the social learning model. Per the work by Ragins et al. (2000) on mentoring relationships, concepts of role model similarity, relatability and popularity were examined. Moreover, for observers who selected their managers as a role model, manager satisfaction was examined alongside engagement social learning variables.

Finally, this research looked at the role of self-efficacy as part of this model of the social learning of engagement. Figure 6 (Bandura, 1977) outlines the sources of information that are believed to contribute to self-efficacy expectations:

Figure 6. Efficacy Expectations



Per Bandura's (2001) research, social learning will not be successful without the observer's innate belief in his/her capacity to achieve that result:

Efficacy beliefs play a central role in the self-regulation of motivation through goal challenges and outcome expectations. It is partly on the basis of efficacy beliefs that people choose what challenges to undertake, how much effort to expend in the endeavor, how long to persevere in the face of obstacles and failures, and whether failures are motivating or demoralizing. The likelihood that people will act on the outcomes they expect prospective performances to produce depends on their beliefs about whether or not they can produce those performances. (p. 10).

Consequently, level of self-efficacy was also tested in relation to the strength of social learning of engagement.

Hypotheses

Although there exists a fair amount of research examining the learning of organizational behaviors and management styles, there is very little literature on the effects of social learning on employee attitudes and behaviors. Specifically, engagement is a concept that has not always been appropriately defined and/or represented in studies, so factors contributing to the transmission of this element have similarly not been determined very well. The purpose of this study was to demonstrate that employee engagement can be socially learned, and in fact, this social learning relationship is a significant means of engagement transmission. Thus, the first supposition of the study fell in line with the research on the overall benefits of informal mentoring relationships, wherein simply having a person to look up to in the workplace can influence one's attitudes and behaviors (Ragins et al., 2000):

Hypothesis 1: Employees who identify a role model will report greater engagement than employees who do not identify a role model.

Since the mentors in this study were self-selected by the observers, it is assumed that they fit the profile of a "good" model in line with social learning theory – one who is relatable, similar to the observer on some level, and somehow motivates the observer to follow suit in terms of attitude and behavior. As the research on the social learning of work attitudes shows, if the model is effective, the observing employee will be likely to go through all of the social learning processes (attention, retention, reproduction and motivation) in an effort to emulate the desired attitude or behavior. It was therefore believed that a correlation exists between the engagement levels of employees and those of the people whom employees viewed as inspiring role models:

Hypothesis 2a: For employees who chose a role model (observers), observer engagement levels (DV) will be predicted by model engagement levels (IV).

Additionally, per the research on employee popularity, it was expected that role models who were more “popular” were likely to be more centrally positioned within the organization as well as more politically skilled, and therefore, more influential:

Hypothesis 2b: For models who were selected by multiple observers (more than 1), the strength of the model-observer engagement correlation will be higher than for relationships where models were selected by a single observer.

When it comes to the outcomes of workplace engagement and performance, the clear employee goal is promotion and advancement. In essence, one aims to fill the shoes of his/her manager. However, as Zagencyk & Murrell (2009) described, the supervisor-employee advice channel is on a more formal level and often not as efficient at transmitting information as trusted coworkers through informal channels. There are instances, however, where employees have more relaxed and trusting relationships with their managers and such was the prediction for employees selecting manager models in this study. In these cases, the employee’s manager fits a good model type (similar job functions, relatability) as well as interaction centrality. It was therefore hypothesized that the manager-model relationship with observers would be more meaningful and impactful than those with non-manager models:

Hypothesis 2c: For models who were also observers’ managers, the strength of the model-observer engagement correlation will be higher than for relationships where models were not the selecting observers’ managers.

In addition to relatability and popularity, the quality of one’s relationship with the model seems to be another factor in social learning. Per the research by Ragins et al. (2000), satisfaction with a mentor is a better predictor of work attitudes than just the existence of

the mentor. Since the survey included a measure of manager satisfaction, the impact of satisfaction on social learning could be tested for those employees who selected their managers as role models:

Hypothesis 2d: For models who were also observers' managers, the model-observer relationship will be moderated by manager satisfaction. Specifically, it is proposed that the relationship will be stronger when observers are highly satisfied with their managers and weaker when observers are more dissatisfied with their managers.

As the Towers Watson (2012) Global Workforce studies revealed, engagement (as traditionally defined by a cognitive-behavioral-affective state), cannot be evaluated in isolation when it comes to workplace outcomes. In essence, simply feeling or acting "engaged" is not enough – one also needs personal energy and workplace support to enable one to thrive and produce based on their levels of traditional engagement. Consequently, and falling in line with Bandura's model of triadic reciprocity, it was believed that employees' individual characteristics as well as their work environments would impact the relationship between model and observer engagement. Furthermore, and taking into account Bandura's agentic perspective on social cognition, this study sought to examine the role of self-efficacy within the context of social learning of engagement in employees:

Hypothesis 3: Model-observer engagement correlation is moderated by individual energy, workplace enablement, and self-efficacy variables. Specifically, it is proposed that the relationship will be stronger when observers are high on these additional components and weaker when observers are low on these components.

CHAPTER FOUR

METHOD

Sample

The total sample for this project included over 16,000 employees from a large, global consumer goods organization who voluntarily responded to an annual Employee Engagement Survey administered by a third-party survey research firm in 2014 via an online platform. Aside from the first hypothesis, most of the analyses were conducted using a sub-sample of this total respondent data. The sub-sample (n=7465) consisted of respondents who had selected a role model within the organization.

Survey Instrument, Measures and Data Collection

The Employee Engagement Survey included 42 opinion items and 2 open-ended items relevant to Engagement. It also included a section for respondents to nominate any co-worker that had inspired them to achieve extraordinary performance in the prior year as well an opportunity to explain their reasons for choosing this individual. For the purposes of this study, the qualitative data for this item was not analyzed. There were also a series of questions asking respondents to evaluate satisfaction with various aspects of their managers. The survey included some additional sections that were not pertinent to the current study. The survey was administered for a two-week period from October 6 – October 17, 2014. Employees received email invitations with individual hyperlinks to

take part in the survey. The hyperlinks were connected to the recipients' demographic data via an HRIS (Human Resource Information System) file. Employees were also sent two reminder emails during the survey administration period encouraging them to respond if they had not already done so. Users were re-assured about survey response confidentiality in both the survey communications as well as an introductory note in the survey itself. Other than helping provide valuable feedback to their organization, employees were not provided any additional incentive to complete the survey.

Only data relevant to the current study (outlined below) and demographic variables were extracted from the final survey data file for analysis. The measures relevant to this study were measured on a 5-point Likert scale (1-5) indicating level of agreement (Agree-Tend to Agree-Neither Agree nor Disagree-Tend to Disagree-Disagree) with a self-assessing statement. All of the survey items relevant to this study have been vetted for construct validity against normative benchmarks from extensive Towers Watson research. Additionally, as mentioned in the literature review, the variables of engagement, energy and enablement were thoroughly tested in a Global Workforce study (Towers Watson, 2012), revealing adequate fit statistics as well as measures of internal consistency. As an added check for this study, Cronbach's alpha was computed for all variables to review internal reliability (see Table 2):

Table 2. Latent Variables and Indicators

Latent Variable	Indicator	Theoretical Concept	Item Reliability
ENGAGEMENT	I believe strongly in the goals and objectives of XYZ.	Attitude – Cognitive	$\alpha = .50$
	I work beyond what is required to help XYZ succeed.	Attitude – Behavioral	
ENERGY	My work gives me a sense of personal accomplishment.	Person	$\alpha = .70$
	I am able to sustain the level of energy I need throughout the work day.	Person	
ENABLEMENT	There are no substantial obstacles at work to doing my role well.	Environment	$\alpha = .68$
	I have the tools, technology, and equipment I need to do my work.	Environment	
SELF-EFFICACY	My role makes good use of my skills and abilities while also providing me with opportunities to take on new challenges.	Performance Accomplishment	$\alpha = .75$
	In my Region/Function, people are encouraged to take calculated risks to deliver business results.	Verbal Persuasion	
	I am sufficiently empowered to do my role well.	Emotional Arousal	

Table 2. Latent Variables and Indicators (cont'd)

Latent Variable	Indicator	Theoretical Concept	Item Reliability
MANAGER SATISFACTION	My manager ensures the goals and objectives against which I am evaluated are clearly defined.	Observer satisfaction with role model	$\alpha = .96$
	My manager holds me accountable for the results I am expected to achieve.		
	My manager challenges and supports me to achieve extraordinary results.		
	My manager keeps me informed about issues that affect me.		
	My manager helps me connect my work to XYZ's strategy.		
	My manager acknowledges and recognizes me for my results.		
	My manager is engaging; I want to come to work and perform.		
	My manager values me and my opinions - even when we disagree.		
	My manager includes me, helps me remove barriers to my full contribution.		
	My manager works with me on my professional growth & development.		
	My manager provides regular and useful coaching and feedback.		
	My manager effectively works with people who are different from him- or herself (in gender, racial/ethnic background, lifestyle, generational, work style, etc.).		
	My manager eliminates work in our team which no longer adds value.		
	My manager does a good job of building teamwork.		

Additionally, the following item was asked along with a drop-down list of all employees in the organization:

Who at Company XYZ has most inspired you to achieve extraordinary performance in the past year?

Data for this item was captured as an employee user ID that did not contain any identifiable content (i.e., employee name).

Data Cleaning and Screening

To begin with, only item data relevant to this study were extracted from the full survey data file and screened for initial cleaning in a raw format in MS Excel. All instances of the client name were changed to “XYZ” (in the data file as well as the map to be used for variable and value labelling). All relevant study data were then checked for uniformity of response (i.e., opinion item responses captured in scale points only, all demographic responses were covered in data map). Respondent cases with large amounts of missing data were then removed from the raw data file.

Next, the raw data was uploaded to SPSS for further screening. All of the variables were formatted to ensure correct type and measure. To make results interpretation more intuitive, the scaled opinion data was reverse-coded so that 1 now represented the most unfavorable response and 5 represented the most favorable. Variable and value labels were added. Scores were calculated for observer engagement, energy, enablement, self-efficacy and manager satisfaction. Using a VLOOKUP in Excel, engagement scores for role models were matched to corresponding observers’ response data, where possible (not all role models participated in the survey, so engagement score matching was not possible in all cases).

Furthermore, basic descriptive statistics and frequency distributions were reviewed to check for skewness and/or outliers in the item data. All of the variables were all non-normally distributed and all showed a significantly negative skew:

Table 3. Descriptive Statistics to Check for Normality

	N	MIN	MAX	Mean	Std. Dev.	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Observer Engagement	16176	1.00	5.00	4.6004	.54673	-1.678	.019	3.651	.039
Model Engagement	7296	1.00	5.00	4.7224	.46398	-2.101	.029	5.610	.057
Energy Index	16172	1.00	5.00	4.2590	.84983	-1.364	.019	1.741	.039
Enablement Index	16165	1.00	5.00	3.9914	.96746	-.977	.019	.400	.039
Self-Efficacy Index	16172	1.00	5.00	4.1990	.80105	-1.197	.019	1.328	.039
Manager Satisfaction	16134	1.00	5.00	4.3251	.79526	-1.494	.019	2.046	.039
Valid N (listwise)	7278								

With such a short scale (1-5), there were too many data points on each end to be considered “extreme outliers”, and thus no cases were removed from the data. These results fell in line with most typical employee survey data, wherein respondents tend to provide more favorable ratings about the workplace when they know organizational leaders will see the data, despite numerous assurances about confidentiality. In an effort to address the skewness, data transformations were performed and results were run on both raw and transformed data (to be discussed further in “Analysis”).

Analysis

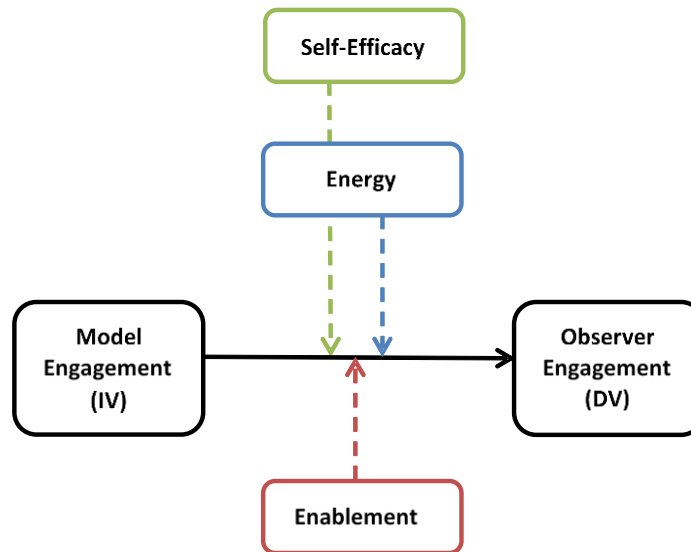
SPSS software was used for all statistical analyses, with confidence levels set at 0.05 for all tests. The first hypothesis was tested with an independent samples t-test for mean score differences between employees who had identified a role model versus those who did not. A follow-up ANOVA was also run in order to estimate effect size.

Hypothesis 2a (observer engagement is predicted by model engagement) was tested using a Pearson’s correlation. Correlations were also run for Hypotheses 2b and 2c, wherein the

model-observer correlations were thought to be higher in one condition versus another: 2b-models who were selected by multiple observers versus a single observer and 2c-models who were also observers' managers versus not. For both hypotheses, a Fisher's Z Test was also run to test for significance of differences between the correlation scores. For hypothesis 2d, a hierarchical multiple regression analysis was conducted to test whether manager satisfaction moderated the model-observer engagement correlation for those whose models were also managers. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between model engagement and manager satisfaction was created.

Finally, hierarchical multiple regression analyses were also conducted to test whether energy, enablement, and self-efficacy moderated model-observer engagement correlations (Hypothesis 3). It was proposed that a stronger relationship exists when observers are high on these additional components, and a weaker relationship occurs when observers are low on these variables:

Figure 7. Social Learning Moderators



Again, to avoid high multicollinearity with the interaction terms, the independent and moderator variables were centered and three interaction terms (between model engagement and the three proposed moderators) were created. Main effects of each of the 3 moderator variables as well as the effects of the 3 two-way interactions were reviewed as follows:

1. All predictor variables (IV and moderators) were centered.
2. Main effects of the IV (model engagement) and moderator (self-efficacy, energy or enablement) on the DV (observer engagement)
 - a. Model engagement was entered first in each analysis, based on theoretical assumptions
 - b. Moderator variable was entered together with the IV
 - c. IV – Moderator interaction was entered
 - d. P_{IN} and P_{OUT} was set to .999 and 1.0 respectively

3. Post-hoc tests

- a. Slopes for each condition (interaction of IV with hi & lo) and interaction plots were reviewed

As a final note, log10 data transformations were completed on all variables in order to address the data non-normality issue. Although transformations moderately improved the skewness statistics for most of the variables, re-analysis of the transformed data provided essentially (if not, exactly) the same results. Consequently, all final results reported in this study are for the non-transformed data.

CHAPTER FIVE

RESULTS

Demographics

To begin with, the following table provides a basic demographic breakdown of the research sample:

Table 4. Study Participants and Basic Demographics

	Demographic Group	Survey Population	Total Respondents	Selected Role Model	% Total Respondents
Gender	Female	5867	5433	2287	42%
	Male	11256	10736	5178	48%
Age Group	Under 30 years old	3586	3369	1928	57%
	30-45 years old	8799	8321	3980	48%
	Over 45 years old	4730	4471	1551	35%
Tenure Group	Less than 2 years	3735	3513	1845	53%
	2 - 5 years	4257	4007	2113	53%
	6 - 10 years	3451	3289	1506	46%
	11 - 20 years	3077	2910	1184	41%
	21+ years	2580	2428	809	33%
Career Level	Leading the Enterprise	82	77	23	30%
	Leading a Function	496	478	200	42%
	Leading Others	4506	4356	2125	49%
	Leading Self	12039	11258	5117	45%
Race (U.S. Only)	American Indian or Alaskan Native	24	23	6	26%
	Asian	272	266	127	48%
	Black or African American	366	330	143	43%
	Hispanic/Latino	336	315	178	57%
	Native Hawaiian or Other Pacific Islander	12	9	8	89%
	Two or More Races	23	22	13	59%
	White	5214	4987	1920	39%
TOTAL		17141	16176	7469	46%

Per the chart, the respondent group was comprised of nearly twice as many males than females, with similar breakdowns in respondents who selected a role model. Age, tenure and career level breakdowns revealed that younger, less-tenured respondents who were in more junior career levels tended to select role models more often than their more senior colleagues. Ethnicity breakdowns were not as representative as these data points were only collected in the U.S., and frequently missing even there.

Research Questions

The first hypothesis in the study had to do with whether identifying a role model in the workplace was related to higher employee engagement scores. Results from the independent samples T-test showed a significant difference [$t(16174) = -11.839, p < .001$] between the engagement indices of employees who selected a role model ($x = 4.655, s = 0.502$) and those who did not ($x = 4.554, s = 0.578$). ANOVA results revealed a small effect size, with a partial η^2 of .009. The two tests confirm there is a small but significant effect of identifying a role model and greater reported engagement scores.

For the next question, a Pearson product-moment correlation coefficient was computed to assess the relationship between the self-reported engagement scores of role models and those of observers. There was a small, positive correlation between the two variables, $r = 0.135, n = 7296, p < 0.001$, confirming that increases in role model engagement were linked with increases in observer engagement.

A Fisher's Z test was computed to assess the significance of differences between model-observer correlations for role models with single nominations versus role models with multiple nominations. Although model engagement was correlated with observer

engagement for both groups, results showed a marginally stronger correlation for relationships with single nominated models, $r = .148$, $n = 2298$, $p < .001$ than for relationships with multiple nominated models, $r = .111$, $n = 4998$, $p < .001$. Additionally, the difference between these correlations was not statistically significant, $Z = 1.49$, $p = .136$. At this point, it was realized that perhaps there may be a violation of independence of observations assumptions if a model's engagement score was repeatedly used in the correlation analysis for models nominated multiple time. So, the data for models nominated multiple times was set to include unique cases only via SPSS (filtered for duplicate role models and used the last primary cases). The re-run analysis still showed a weaker correlation for this group, $r = .124$, $n = 1526$, $p < .001$ and the difference between this correlation and the one for single-nominated models ($Z = 0.74$, $p = .459$) was still not statistically significant. Thus, results were contrary to the hypothesized effect of role model popularity improving and/or increasing social learning of engagement.

A Fisher's Z test was also computed to assess the significance of differences between model-observer correlations for role models who were also observers' managers versus those who were not. Although model engagement was correlated with observer engagement for both groups, results showed a stronger correlation for relationships with models who were not observers' managers, $r = .168$, $n = 4095$, $p < .001$ than for relationships with models were also observers' managers, $r = .061$, $n = 1335$, $p = .026$. The difference between these correlations was statistically significant, $Z = -3.44$, $p < .001$, however it was again contrary to the hypothesis that employees' managers have a more meaningful impact on social learning of engagement.

To test whether manager satisfaction moderated the model-observer correlation for models who were also observers' managers, the main effect of the model engagement (centered) was tested first in a hierarchical regression. Model engagement did significantly predict observer engagement for this group and also accounted for a small, but significant amount of variance in the dependent variable, $R^2 = .003$, $F(1, 1333) = 4.966$, $p < .05$, $\beta = .06$, $t(1333) = 2.23$, $p = .03$. In the second step, two variables were included: centered model engagement and centered manager satisfaction. These variables together accounted for a significant amount of variance in observer engagement, $R^2 = .127$, $F(2, 1332) = 98.396$, $p < .01$, but clearly showed that manager satisfaction was a better predictor of observer engagement ($\beta = .35$, $p < .01$) than model engagement ($\beta = .04$, $p = .10$). Next, the interaction term between model engagement and manager satisfaction was added to the regression model, which did not account for a significantly greater proportion of the variance in observer engagement, $\Delta R^2 = .002$, $\Delta F(1, 1331) = 2.351$, $p = .125$, $\beta = -.039$, $t(1331) = -1.533$, $p = .125$. As such, results revealed no moderation effect of manager satisfaction on the model-observer engagement relationship, and no further analysis was required.

In testing whether energy, enablement and self-efficacy moderated the model-observer engagement correlation, regression results showed evidence for moderation by all three variables (Table 5):

Table 5. Moderation of Model-Observer Engagement Relationship

	Proposed Moderators		
	Energy	Enablement	Self-Efficacy
Step 1: Model Engagement (ME)	$R^2 = .02$, $F(1, 7292) = 127.83$, $p < .001$	$R^2 = .02$, $F(1, 7291) = 127.34$, $p < .001$	$R^2 = .02$, $F(1, 7293) = 127.60$, $p < .001$
Step 2: ME + Moderator	$R^2 = .28$, $F(2, 7291) = 1417.12$, $p < .001$	$R^2 = .16$, $F(2, 7290) = 699.99$, $p < .001$	$R^2 = .26$, $F(2, 7292) = 1274.95$, $p < .001$
Model Engagement (main effect)	$\beta = .08$, $t(7291) = 8.37$, $p < .001$	$\beta = .10$, $t(7290) = 9.53$, $p < .001$	$\beta = .08$, $t(7292) = 8.20$, $p < .001$
Moderator (main effect)	$\beta = .52$, $t(7291) = 51.57$, $p < .001$	$\beta = .38$, $t(7290) = 35.37$, $p < .001$	$\beta = .49$, $t(7292) = 48.79$, $p < .001$
Step 3: ME + Moderator + Intrxn ME x Moderator	$\Delta R^2 = .001$, $\Delta F(3, 7290) = 11.63$, $p = .001$	$\Delta R^2 = .001$, $\Delta F(3, 7289) = 9.68$, $p = .002$	$\Delta R^2 = .002$, $\Delta F(3, 7291) = 16.55$, $p < .001$
Model Engagement (main effect)	$\beta = .08$, $t(7290) = 7.87$, $p < .001$	$\beta = .10$, $t(7289) = 9.24$, $p < .001$	$\beta = .08$, $t(7291) = 7.87$, $p < .001$
Moderator (main effect)	$\beta = .51$, $t(7290) = 51.15$, $p < .001$	$\beta = .38$, $t(7289) = 35.16$, $p < .001$	$\beta = .49$, $t(7291) = 51.15$, $p < .001$
Interaction Effect	$\beta = -.03$, $t(7290) = -3.41$, $p = .001$	$\beta = -.03$, $t(7289) = -3.11$, $p = .002$	$\beta = -.04$, $t(7291) = -3.41$, $p < .001$

In each analysis, addition of the moderator variable to model engagement both explained a significantly greater proportion of variance in observer engagement and improved the relationship between the variables (larger regression coefficients) across the board. Additionally, in each scenario, the moderators better predicted observer engagement than the independent variable (model engagement). The addition of the interaction terms also revealed significant relationships across the board and accounted for significantly greater variance in the models.

However, post-hoc moderation probing (see Table 6) and examination of the interaction plots (see Appendix B) showed that for all three moderators, higher scores actually meant less effects from the main predictor:

Table 6. Post-Hoc Moderation Probing

	Moderators		
	Energy	Enablement	Self-Efficacy
Hi Condition: ME + HiModerator + Intrxn ME x HiMod	$R^2 = .28, F(3, 7290) = 949.99, p < .001$	$R^2 = .16, F(3, 7289) = 470.44, p < .001$	$R^2 = .26, F(3, 7291) = 857.30, p < .001$
Model Engagement (main effect)	$\beta = .048, t(7290) = 3.29, p = .001$	$\beta = .068, t(7289) = 4.4, p < .001$	$\beta = .039, t(7291) = 2.61, p = .009$
HiModerator (main effect)	$\beta = .512, t(7290) = 51.15, p < .001$	$\beta = .379, t(7289) = 35.16, p < .001$	$\beta = .491, t(7291) = 48.36, p < .001$
Interaction Effect	$\beta = -.050, t(7290) = -3.41, p = .001$	$\beta = -.048, t(7289) = -3.11, p = .002$	$\beta = -.061, t(7291) = -4.07, p < .001$
Lo Condition: ME + LoModerator + Intrxn ME x LoMod	$R^2 = .28, F(3, 7290) = 949.99, p < .001$	$R^2 = .16, F(3, 7289) = 470.44, p < .001$	$R^2 = .26, \Delta F(3, 7291) = 857.30, p < .001$
Model Engagement (main effect)	$\beta = .111, t(7290) = 8.67, p < .001$	$\beta = .131, t(7289) = 9.27, p < .001$	$\beta = .115, t(7291) = 8.97, p < .001$
LoModerator (main effect)	$\beta = .512, t(7290) = 51.15, p < .001$	$\beta = .379, t(7289) = 35.16, p < .001$	$\beta = .491, t(7291) = 48.36, p < .001$
Interaction Effect	$\beta = -.043, t(7290) = -3.41, p = .001$	$\beta = -.044, t(7289) = -3.11, p = .002$	$\beta = -.052, t(7291) = -4.07, p < .001$

Thus, the relationship between model engagement and employee engagement is stronger (larger regression coefficients) when the employees scored lower on the three moderator variables, not higher as hypothesized.

Additional Analyses

At this point, some additional, exploratory analyses were conducted to review questions that came up post-hoc. For one thing, since the focus of this research was the model-observer engagement relationship, most of the analyses looked at how this correlational relationship was impacted by other variables. However, in examining the influence of manager-models as well as popular models, an idea emerged that reviewing observer engagement mean score differences based on these factors might shed some additional light on the overall influence of the type of role model one selects. As such, two independent samples t-tests for mean score differences were run – one between employees who had selected a role model with multiple nominations versus those who

did not; and one between employees who had selected their manager as a role model versus those who did not. Follow-up ANOVA tests were also run in order to estimate effect sizes:

Table 7. Observer Engagement Mean Differences by Model Type

	Model with Multiple Noms. vs. Not	Manager Model vs. Not
T-test for Mean Differences	Multiple Noms: X = 4.675, s = 0.492 Single Nom: X = 4.612, s = 0.519 T-test: t(7467) = -5.839, p < .001	Manager Model: X = 4.672, s = 0.506 Model not Manager: X = 4.614, s = 0.535 T-test: t(7467) = 4.093, p < .001
ANOVA effect size	η^2 of .003	η^2 of .002

Although the t-tests confirmed statistically significant differences, ANOVA results revealed trivial effect sizes for the type of model selected on reported engagement scores.

Furthermore, tests were run to assess the impact of gender on the model-observer relationship in the engagement social learning process. Per the earlier discussion on Bandura's theory, social learning is more likely to occur when observers find the models relatable, which might be prompted by characteristics of the model, the observer or both. Furthermore, the research on personal agency in the workplace (Ragins et al., 2000) revealed that employees, especially females, are less likely to be satisfied with mentors assigned to them than ones they select themselves. In the case of the current study, role models were self-selected, so satisfaction with the resulting relationships may not account for much variance in any social learning (as was revealed by the manager satisfaction analysis). What is interesting here is the kinds of differences that exist between males and females with regards to social learning of engagement. Although the bulk of this analysis

was exploratory in nature, it was hypothesized (post-hoc) that similarity of model-observer gender would result in stronger engagement correlations than a mixed gender relationship.

First, a t-test was run to check for any overall engagement score differences between male and female employees who selected a role model. Results showed no significant effect for observer gender [$t(7463) = -2.95, p = .079$] between the engagement indices of male ($x = 4.667, s = .498$) and female ($x = 4.629, s = .509$) observers. Next, a Fisher's Z test was computed to assess whether there were significant differences between model-observer correlations for male observers versus female observers. Results showed no significant differences ($Z = 0.32, p = .749$) between the model-observer correlations for female observers ($r = .136, n = 2224, p < .001$) and male observers ($r = .128, n = 5068, p < .001$). Finally, Fisher's Z tests were calculated to assess significant differences between model-observer correlations for the following groups:

Table 8. Gender Effects on Model-Observer Correlations

		Model Engagement	
		Female Role Model	Male Role Model
Observer Engagement	Female Observer	$r = .174,$ $n = 1054,$ $p < .001$	$r = .112,$ $n = 1170,$ $p < .001$
	Male Observer	$r = .111,$ $n = 761,$ $p = .002$	$r = .130,$ $n = 4307,$ $p < .001$

Although the same gender model-observer relationship for females shows the strongest correlation overall, z-test results revealed no statistically significant differences across the four groups:

Table 9. Correlation Differences for Gender Groups

	Fisher's Z Test for Significance of Differences
Female Observers: Female vs Male RMs	$z = 1.49, p = .136$
Male Observers: Female vs Male RMs	$z = -.49, p = .624$
Female RMs: Female vs Male Observers	$z = 1.35, p = .177$
Male RMs: Female vs Male Observers	$z = -.55, p = .582$

CHAPTER SIX

DISCUSSION

The influence of coworkers on workplace attitudes and behaviors is a well-researched and established occurrence in organizational psychology. The literature reviewed for this study presented ample evidence of co-worker and/or work-group correlations related to both positive and negative workplace attitudes and behaviors. Given that many of these relationships may be bi-directional in their influence, social learning theory seems to be a fitting lens for examining such connections, due to the reciprocal nature of the social learning framework. One construct that consistently surfaces as a prominent topic in organizational research is employee engagement. The aim of this research was to investigate how social learning theory may be applied to the relationship between engagement levels of role models and observing employees.

Overall, results from this study revealed some truly validating insights on the topic of social learning within the organizational setting. Primarily, the influence of coworkers (namely, role models) within the context of socially learned employee engagement was confirmed. Model type (i.e., manager vs. non-manager) as well as relationship satisfaction were explored and added some contextually mixed evidence to what was postulated. And finally, the interactions of energy, enablement and self-efficacy within the model-observer engagement relationship were corroborated – albeit, in a condition contrary to the hypothesis, but with significant implications nonetheless.

Conclusions & Implications

As reviewed earlier, empirical studies have shown a reliable connection between the existence of an informal mentor and more positive job attitudes as well as greater job satisfaction and commitment (Ragins et al., 2000). The first few results of this study validated previous field work findings by revealing that employees who identified a role model reported significantly greater engagement scores than employees who did not identify a model. Furthermore, for the group who identified a model, this study confirmed a significant correlation between model engagement and observer engagement. Existing theoretical models and empirical studies consider various internal and/or external influences on engagement, but none have examined the direct connection between individual engagement levels. A valuable implication of these initial study results is the confirmation of a social component, namely observational learning, in employee engagement research.

The literature reviewed also makes a case for examining the nature of employee mentoring relationships within the context of learning attitudes and behaviors. For example, research shows that employees who are popular display greater political skill and influence on coworker attitudes and behaviors. This study attempted to verify this claim by reviewing model-observer engagement correlations for relationships with single-nominated models versus models with multiple nominations. However, results showed a slightly stronger correlation for single-nominated models, with no significant difference between this relationship and the correlation for multiple-nominated models. These results indicate a few things. First, more substantive information is likely needed to measure the concept of model popularity and its impact rather than simply the number of

times an employee was nominated. Nevertheless, although the number of nominations does not appear to influence model-observer engagement correlations, models with many nominations are still contributing to the engagement of multiple employees, and this detail could be useful in targeting these models for the purposes of empowerment.

One interesting occurrence that was examined in this study was the selection by many employees of their immediate managers as role models. Building on the notions of similarity and centrality, it was speculated that in the instances where observers chose their managers as role models, there was possibly a greater likeness (based on job functions) and interaction proximity than for other model relationships and therefore a stronger model-observer engagement correlation. Results, however, provided evidence for the contrary with a higher correlation (statistically significant) for the group with non-manager role models. The relationship of manager-models to observers was further examined by testing for moderation of engagement correlations by manager satisfaction. In a study on formal mentoring programs, Ragins et al. (2000) showed that satisfaction with role models is a better predictor of work attitudes than the mere existence of a model. It was therefore speculated that manager satisfaction would moderate the model-observer engagement correlation for this group. Results did provide evidence in line with the literature in terms of manager satisfaction predicting observer engagement better than the predictive power of model engagement, however there were no moderation effects of the model-observer relationship itself as had been hypothesized. Thus, an important contribution here was the significance of relationship satisfaction on engagement itself, lending more support to the influence of social interaction on this behavioral state. However, there are clearly additional nuances to the manager-employee relationship that

may not fit the stereotypical mold of role models and observers. It could be that response bias compelled some employees to select their managers as role models, even though they actually had little bearing on their engagement. In this case, that obligation may be at odds with one's personal agency in selecting a role model and therefore diminish that model's influence.

Results from the final, and most pivotal hypothesis of this study confirmed the interplay of personal, environmental, and behavioral components in the social learning of employee engagement. Per the extensive research by Bandura (1977), social learning exchanges occur within a triadic interchange of factors, as well as a component of personal agency driving these relationships throughout. As such, the exchange of learning engagement was reviewed with factors of personal energy, environmental enablement, and an agentic component of self-efficacy as moderating the model-observer engagement relationship. All three variables were revealed as statistically significant moderators of the engagement learning relationship, confirming Bandura's (1977) social cognitive model of triadic reciprocity. However, rather than the predicted enhancing effect of these variables (essentially, that employees high on these variables would have stronger model-observer engagement correlations), the results demonstrated that higher levels of the moderators actually reduced the effect of the social learning. In essence, models have a greater impact on the engagement of observers when there is more room for an effect. This suggests that if employees are naturally high on other engagement-related components (energy, enablement, & self-efficacy), there is less need for social influence from a model. Furthermore, results showed that each moderator better predicted observer engagement than the main independent variable (model engagement). This result

provided a supportive nod to the known, direct relationship of energy and enablement with employee engagement, per the research by Towers Watson (2012). Additionally, it introduces an internal, agentic factor of self-efficacy as a predictor of engagement.

The engagement moderation results provide considerable implications for organizational engagement research. First, we now have some additional information on what is driving employees in different engagement segmentations. For example, employees who are engaged in a traditional sense, but low on components of energy and enablement (say as compared to normative benchmarks) are regarded by Towers Watson (2012) as “Unsupported,” and are typically reported as a group to target to improve conditions that would reinforce personal and environmental factors in order to maintain and/or improve engagement. However, the reality is, sometimes these types of improvements are not practically and/or financially possible. As such, it is helpful to know that there could be a social component driving engagement for these employees. If so, it could be beneficial to identify these model employees, and perhaps more efficient to empower them directly as they could be influencing several others on these other components contributing to engagement. Additionally, there is the factor of self-efficacy – an actionable method of sustaining and/or improving engagement might be to empower employees with greater autonomy and confidence in skills and abilities.

It should be noted that some additional exploratory analyses were conducted to review any effects of gender on the model-observer correlations. Only gender was explored because other demographic breakdowns revealed that younger, less tenured individuals who were earlier in their careers were more likely to select a role model, so the effects of similarity on those variables would not make much intuitive sense since

models might be represented by the inverse. No significant effects for gender were found, which confirms that when self-selecting a role model, men and women receive comparable attitudinal benefits (Ragins et al., 2000).

Limitations

There were a number of limitations to this research, the most primary of which was the use of an existing survey instrument and corresponding data. For one, data was collected from one organization and so, for now, results are really only generalizable to this population (or at most other, similar consumer goods organizations). In a related note, the fact that the moderators (energy, enablement, and self-efficacy) correlated better with observer engagement than model engagement did might be due to rater bias since the moderators and observer engagement ratings were from the same persons. Furthermore, the phrasing of the model selection question, “Who at Company XYZ has most inspired you to achieve extraordinary performance in the past year,” is not explicitly asking about engagement, although engagement would likely be a prerequisite to “inspiration to achieve extraordinary performance.” In any case, the word ‘performance’ could have triggered a different role model than the word ‘engagement’ might have. Therefore model-observer results may be looking at the influence of *a* role model rather than an *engagement* role model, specifically. Another issue with the survey data was that the number of engagement indicators was low, which produced low factor reliability. Since this was the main dependent and independent variable, it would have been better to have a more robust measure of the factor. Finally, as demonstrated in this study, organizational survey data tends to be highly negatively skewed, and in this case, even transformations did not correct for the asymmetry. It should be noted, however, that

analyzing the transformed data produced the same results, so it is likely that skewness is not such a huge problem for this data set. And, although the statistical tests run with these non-normal data distributions do not fit the standard assumptions of normality, they are likely still generalizable to the target population of this research (organizations), since negatively skewed data are symptomatic of most employee research.

Another weakness in this study was the definition of popularity. It would seem that number of nominations as a role model is not likely a good indicator of workplace popularity. The prior research in this area involved self-evaluations, work communication centrality, and co-worker consensus. Additionally, it was noted the popularity is distinct from likeability, and often popular employees may not be well-liked by all (Scott & Judge, 2009). In the case of selecting a workplace role model, one would tend to select someone they liked and respected as these are typical features of a good social learning model.

Several speculations were made along the lines of what may have contributed to employees' response bias in terms of selecting their managers as role models, especially if these relationships are not serving as particularly influential. One thought was that there may be a cultural component, wherein employees from certain populations may feel pressure to select their managers as models. However a quick demographic breakdown showed fairly consistent selections across the major countries of response:

Table 10. Manager Role Model Locations

Country	Selected Model	Model is Manager	Percentage
Brazil	1419	297	21%
China	292	99	34%
India	801	192	24%
Italy	558	112	20%
Mexico	757	171	23%
USA	2402	626	26%
Other	1236	334	27%
TOTAL	7465	1831	25%

In the end, such responses may just be a product of the psychological threats faced by respondents of employee surveys (i.e., managers seeing/judging responses, risk of losing one's job, etc.).

Future Directions

With such promising preliminary results for examining the Social Learning of Employee Engagement, there are a number of recommendations that can be made to expand results generalizability and advance this topic of research. For one, improving the model-selection item and strengthening the engagement factor would vastly boost the data measurement. Additionally, data should be collected from various industries to improve generalizability and/or from a broader population (not via company surveys) to decrease response bias and improve data normality.

Also, on the topic of model types, it would be beneficial to capture additional information to gauge factors such as model likeability, popularity, similarity with observer and centrality. Furthermore, although manager satisfaction results showed a direct relationship with employee engagement, the manager-model group was not a very fitting group to examine with regards to impact on social learning. Per Ragins et al.

(2000), people probably wouldn't self-select a mentor they were not satisfied with and/or would dissolve unsatisfactory relationships so this may not show any effect, but to be sure, it would be helpful to collect relationship satisfaction data for *all* role models.

Additionally, with self-efficacy showing such a strong link to engagement (both direct and moderating the social-learning relationship), it is recommended to explore this variable further in terms of its direct relationship with engagement, interplay with the components of energy and enablement and impact on any social learning that may be taking place. Another idea would be to reconceptualize these moderator variables (energy, enablement, and self-efficacy) as mediators of the engagement social-learning relationship.

Finally, the data presented in this study are descriptive and cross-sectional. Future research might examine more closely exactly what models do to transfer their engagement to the employee. Is it simply social learning or are these models actually “coaching” engagement in some fashion? Also, studying the model–observer relationship over time might better validate that model engagement actually leads to observer engagement, rather than perhaps just contextual evidence in which employees are choose engaged models.

Final Remarks

Employee engagement continues to be an important concept in workplace research. Organizations are undoubtedly interested in how to create and cultivate conditions that optimize the commitment, motivation and productive potential of their workforces. This study contributes a small slice of knowledge in the engagement research field by demonstrating the importance of a social learning component of employee

engagement. Consequently, the results also open the door to further research, perhaps with a new lens with which to see and understand engagement.

APPENDIX A

TOWERS WATSON SUSTAINABLE ENGAGEMENT INDEX

Traditional Engagement Items

1. I believe strongly in the goals and objectives of this organization.
2. I am proud to be associated with this company.
3. I would recommend my organization to others as a good place to work.
4. I am willing to put in extra effort beyond what is normally expected to help my organization succeed.

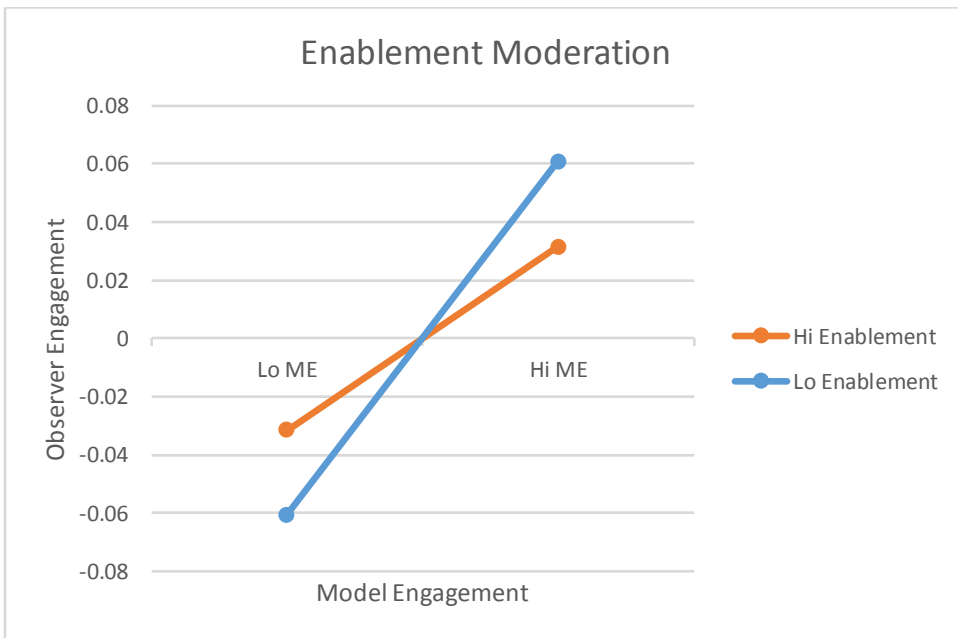
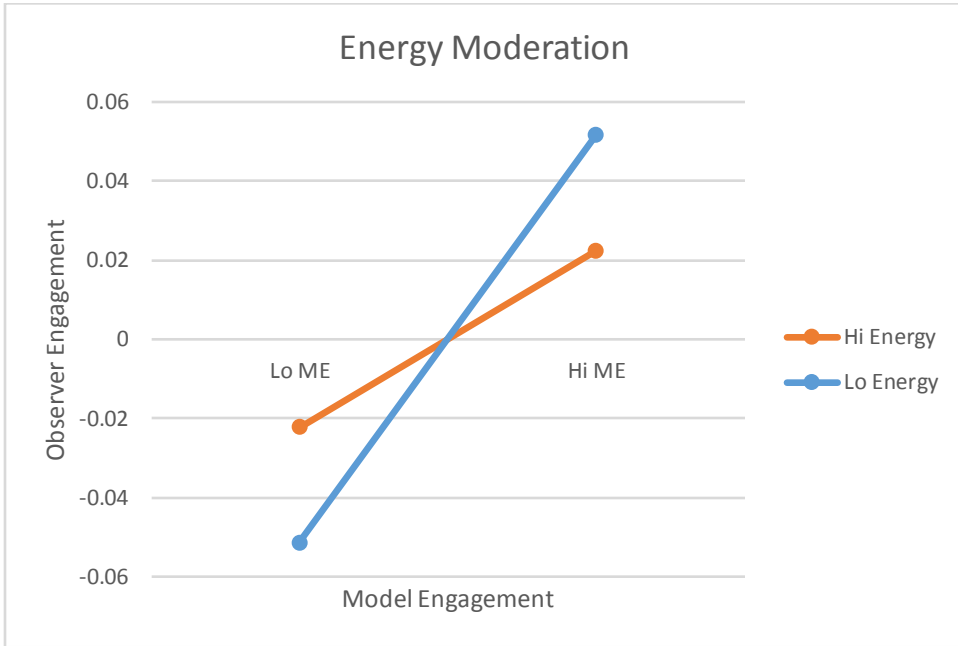
Enablement Items

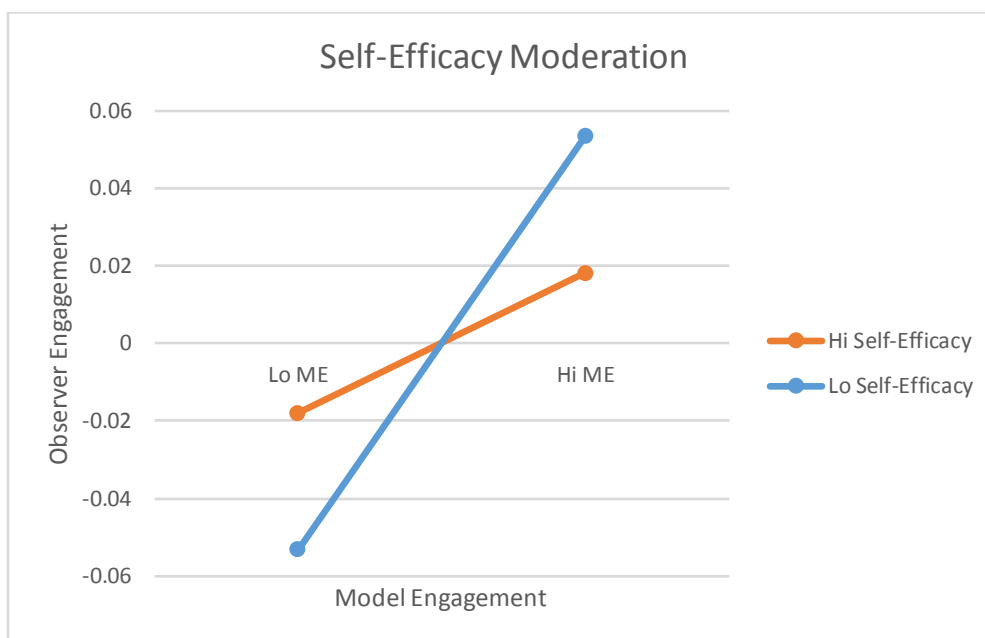
1. There are no substantial obstacles at work to doing my job well.
2. I have the work tools and resources I need to achieve exceptional performance.
3. My work group is able to meet our work challenges effectively.

Energy Items

1. I am able to sustain the level of energy I need throughout the work day.
2. My work group operates effectively as a team.
3. My work provides me with a sense of personal accomplishment.

APPENDIX B
INTERACTION PLOTS FOR MODERATION TESTING





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VITA

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