SOCIAL NETWORK EFFECTS ON ABUSIVE SUPERVISION:
SOCIAL BENEFITS AND COSTS OF LEADER AND MEMBER CENTRALITY IN
INTRA-TEAM SOCIAL NETWORKS

DISsertation

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of
Philosophy in the Graduate School of The Ohio State University

By

Hee Man Park

Graduate Program in Labor and Human Resources

The Ohio State University

2017

Dissertation Committee:

Professor Bennett J. Tepper, Advisor
Professor Howard J. Klein
Professor Robert B. Lount, Jr.
Professor James B. Oldroyd
ABSTRACT

This dissertation examines the effect of social networks on the occurrence of abusive supervision. Previous study of the predictors of abusive supervision has focused on factors including the leader, follower, and organization, ignoring any relational antecedents that may facilitate or constrain leader abuse. An emerging body of theory and empirical research suggests that leadership is a relational phenomenon. As a result, social networks play an important part in this phenomenon. Thus, I invoke social network frameworks to explain how leader and follower position in intra-team networks—which I define as the structure of social relationships among team members and their leader—influence the frequency of leader abuse. Specifically, considering both benefits and costs of social structure, I hypothesize that leader centrality can both increase and decrease leader abuse. It increases it through ego-depletion and decreases it through leaders’ belief that they are trusted. In addition, I theorize that a team member’s centrality is negatively associated with leader abuse through perceived utility of the team member and yet, positively associated with leader abuse through identity threat. Finally, linking leader and team member centrality, I hypothesize that leader centrality interacts with member centrality such that leader centrality weakens the link between team member centrality and perceived utility and the link between team member centrality and identity threat. Results with 289 leaders across various organizations provided general support for the
indirect effect of members’ advice network centrality on individual-level abusive supervision (but not for members’ friendship network centrality) and partial support for the effect of leaders’ advice network centrality on leaders’ psychological states, feeling trusted. This dissertation extends abusive supervision and leadership literature by considering abusive supervision as a socially embedded phenomenon and by showing how informal leaders emerge based on social networks, which in turn may lead to unintentional and undesirable consequences.
Acknowledgements

This dissertation could have not existed without the encouragement and help of my wife, Yoon Sun. She always supported me as my best friend, believed in my potential, and made me dream of what I never thought I could accomplish. Celine, my daughter and the most precious gift from God, has been the source of my strength and persistence. We made it together as a family. I also thank my parents, Myunghee Jang and Joobyung Park for their prayers and endless love.

I am grateful to my advisor Dr. Bennett Tepper for his intellectual guidance and invaluable psychological support. His persistence and motivation for academic legacy always amazed me. To me, he was an exemplary scholar, who constantly pursues academic excellence and knows how to apply knowledge to actual organizational settings. His integrity, perseverance, and courage to suggest bold ideas will influence the rest of my academic career. I also want to extend my appreciation to my committee members, who helped make this dissertation a reality. Dr. Howard Klein, a chair of my comprehensive exam and a mentor, taught me all the basics for being a management researcher and was available for any concerns that I had. Dr. James Oldroyd encouraged me to be a better scholar, and we had fun generating ideas and analyzing data. Dr. Robert Lount was always willing to listen to my statistical concerns and shared his knowledge on designing and running behavioral lab studies.
I thank Dr. Hyoung Koo Moon and Dr. Eonsoo Kim for encouraging me to pursue a PhD. Dr. Moon is a wonderful example both in and outside of the classroom as a teacher and a mentor by demonstrating care for students and persistent intellectual curiosity. Dr. Kim’s ‘Strategic Management’ class sparked my interests in academic research and ultimately led to my PhD. He always reminds me of the meaning of having a vision and being a good teacher. And to me, he is and will be the coolest teacher in the world.

Finally, I want to thank my colleague PhD students, especially my office mates, Sarah and Seunghoo. They have been extraordinary friends and excellent collaborators. We have had great times as well as have been though frustration and painful moments together. I truly appreciate their social support and hope we can continue to have fun together.
Vita

2005………………………………………B.E & B.B.A. Korea University

2009………………………………………M.B.A. Korea University

2012………………………………………M.I.L.R. Cornell University

2017 (Expected)…………………………Ph.D. The Ohio State University

Publications


Fields of Study

Major Field: Labor and Human Resources
# Table of Contents

ABSTRACT........................................................................................................................................... ii  
Acknowledgements................................................................................................................ iv  
Vita.................................................................................................................................................... vi  
List of Tables ...................................................................................................................................... xi  
List of Figures ..................................................................................................................................... xii  
Chapter 1. INTRODUCTION AND STATEMENT OF THE PROBLEM ................... 1  
Chapter 2. LITERATURE REVIEW ................................................................................................. 7  
  Antecedents of Abusive Supervision ................................................................................................. 9  
    Organizational factors...................................................................................................................... 9  
    Follower characteristics and experiences ...................................................................................... 11  
    Relational Factors as Potential Predictors of Abusive Supervision ......................................... 11  
  Developments of the Social Network Approaches in the Leadership Literature .......... 12  
  Benefits and Costs of Social Networks .......................................................................................... 22  
    Network Theory of Social Capital.................................................................................................. 22  
    Social Benefits: Gains of Social Networks.................................................................................... 23  
    Social Costs: Risks and Perils of Social Networks........................................................................ 26
<table>
<thead>
<tr>
<th>Chapter 3. CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Centrality and Team-Level Abusive Supervision Model: Why are some leaders more abusive than others to their team members in general?</td>
<td>35</td>
</tr>
<tr>
<td>Social Benefits of Leaders’ Central Position in Intra-Team Networks</td>
<td>37</td>
</tr>
<tr>
<td>Leader Centrality and Leaders’ Belief that They Are Trusted</td>
<td>38</td>
</tr>
<tr>
<td>Leaders’ Belief that They Are Trusted and Team-level Abusive Supervision</td>
<td>39</td>
</tr>
<tr>
<td>Social Costs of Leaders’ Central Position in Intra-Team Networks</td>
<td>42</td>
</tr>
<tr>
<td>Leader Centrality and Ego-Depletion</td>
<td>42</td>
</tr>
<tr>
<td>Ego-Depletion and Team-Level Abusive Supervision</td>
<td>45</td>
</tr>
<tr>
<td>A Team Member Centrality and Individual-Level Abusive Supervision Model: Who Becomes a Target of Abusive Supervision?</td>
<td>48</td>
</tr>
<tr>
<td>Social Benefits of a Team Member’s Central Position in Intra-Team Networks</td>
<td>49</td>
</tr>
<tr>
<td>Team Member Centrality and Perceived Utility</td>
<td>49</td>
</tr>
<tr>
<td>Perceived Utility to Leaders and Individual-Level Abusive Supervision</td>
<td>53</td>
</tr>
<tr>
<td>Social Costs of a Team Member’s Central Position in Intra-Team Networks</td>
<td>55</td>
</tr>
<tr>
<td>Leader Identity Construction</td>
<td>55</td>
</tr>
<tr>
<td>A Team Member’s Centrality and Identity Threat to the Leader</td>
<td>57</td>
</tr>
<tr>
<td>Identity Threat and Individual-Level Abusive Supervision</td>
<td>59</td>
</tr>
<tr>
<td>Moderating Effects of Leader Centrality</td>
<td>62</td>
</tr>
</tbody>
</table>

viii
Chapter 4. METHOD ................................................................................................................. 66
   Sample ................................................................................................................................... 66
   Procedure ............................................................................................................................... 67
   Measures ................................................................................................................................. 69
   Analysis Strategy .................................................................................................................. 74
Chapter 5. RESULTS .................................................................................................................. 75
   Preliminary analysis ............................................................................................................... 75
   Tests of Hypotheses ............................................................................................................... 78
   Leader-Level Hypothesis Tests ............................................................................................. 78
   Member-Level Hypothesis Test ............................................................................................. 82
   Tests of Cross-Level Moderation Hypotheses ....................................................................... 86
Chapter 6. DISCUSSION ............................................................................................................ 91
   Overview of Findings .............................................................................................................. 91
   The position of leaders in intra-team social networks ......................................................... 92
   Social costs and benefits of leader network position ........................................................... 93
   The position of members in intra-team social networks ...................................................... 95
   Social costs and benefits of member network position ....................................................... 96
   Study Limitations ................................................................................................................ 98
Construct operationalization: network visualization and self-report abusive supervision

Potential common method variance

Limited focus on centrality

Future Research Directions

Mediating mechanisms linking centrality and abusive supervision

Effects of different network characteristics (types and positions) on various leader behaviors

Boundary conditions for member centrality effects on individual-level abusive supervision

Abusive supervision’s influence on team networks

Practical Implications

Social environment that decreases abusive supervision

Leader selection and development

Conclusion

References

Appendix: Scales and Items
List of Tables

Table 1. Definitions of various social network terms (Brass, 2012; Kilduff & Brass, 2010) ................................................................................................................................................................................. 14

Table 2. Structure and items of longitudinal survey for team leaders .................................. 68

Table 3. Means, standard deviations, scale reliabilities, and correlations among leader-
level study variables ................................................................................................................................................................. 77

Table 4. Regression and PROCESS results of the relationship between leader centrality,
feeling trusted, ego-depletion, and team-level abusive supervision ......................................... 81

Table 5. Regression and PROCESS results of the relationship between member
centrality, perceived utility, identity threat, and individual-level abusive supervision .... 85

Table 6. Regression results of the moderated mediation relationships between leader
centrality, member centrality, and individual-level abusive supervision .............................. 89

Table 7. Summary of study hypotheses and findings ........................................................................ 90
List of Figures

Figure 1. Relationships between theoretical perspectives used in the study .................. 7

Figure 3. Illustration of various network positions in intra-team networks............... 31

Figure 4. Multi-level model of leader centrality and team member centrality - abusive supervision............................................................................................................................................. 37

Figure 5. Network visualization scale.................................................................................. 70
CHAPTER 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

Formally appointed managerial leaders play an important role in achieving organizational goals. Although organizations attempt to hire and develop effective leaders systematically, some leaders behave in ways that are detrimental to their organizations. For example, evidence suggests that some leaders execute acts of non-physical hostility against their direct reports and that these behaviors undermine employee, team, and organization effectiveness (Hershcovis & Barling, 2009; Schyns & Schilling, 2013; Tepper, 2007). The detrimental effects of leader hostility, which has been termed “abusive supervision,” transcend the workplace and include followers’ alcohol abuse (Bamberger & Bacharach, 2006) and aggression toward family members (Hoobler & Brass, 2006; Wu, Kwan, Liu, & Resick, 2012).

The evidence suggesting that abusive supervision negatively affects organizations and their members has evoked scholarly interest in identifying the factors that predict when leader hostility is more or less likely to occur. In answer to the call for research on predictors of leader abuse (Tepper, 2007), scholars have explored follower experiences and characteristics (e.g., low performance and high negative affect: Tepper, Moss, & Duffy, 2011; Walter, Lam, van der Vegt, Huang, & Miao, 2015), leader experiences and characteristics (e.g., authoritarian style, sleep deprivation, identity: Barnes, Lucianetti,
Bhave, & Christian, 2014; Kiazad & Restubog, 2010), and organizational factors (e.g.,
hostile team climate: Mawritz, Dust, & Resick, 2014).

Although this research has provided insights into the reasons why leaders treat
their followers with hostility, extant work in this area may be characterized as nascent
and incomplete. A notable omission in prior studies is the influence of social networks on
leader abuse. A social network is a web of interpersonal ties within organizational units.
It is also described as a social structure because the web of interpersonal ties has
regularity or a pattern. The social network approach suggests that the position at which
individuals are located in social networks (e.g., center, periphery) influences the attitudes
and actions of those individuals (Granovetter, 1973). Adopting the social network
approach, leadership scholars have argued that leadership is a relational phenomenon
(Carter et al., 2015). This suggests that the display and consequences of leader behavior
are influenced by the structure of social relationships in which leaders and followers are
embedded (Granovetter, 1985; Sparrowe & Liden, 2005). In this sense, a social network
approach complements theoretical perspectives that have dominated the thinking about
abusive supervision to date.

One of these dominant approaches is social exchange theory, which posits that
positive or negative interactions between two individuals are interdependent (Blau,
1964). Social exchange theory has been invoked to explain why leaders behave abusively
towards followers (Lian, Ferris, Morrison, & Brown, 2014) and to explain followers’
performance of counter-productive, in-role, and extra-role behaviors (Illies, Narhgang, &
Morgeson, 2007; Lyons & Brent, 2012; Peng, Schaubroeck, & Li, 2013). A limitation of
social exchange theory is that it does not account for the richness of the relationships in which focal actors are embedded.

Using a social network approach has the potential to extend the literature on abusive supervision in novel and important ways. First, applying this approach may show that relational factors are important to understand the phenomena of abusive supervision. This work contributes to the leadership literature by adding evidence that relational factors play a key role in explaining leader abuse. An emerging body of theory and empirical research suggests that leadership is a relational phenomenon (Carter, DeChurch, Braun, & Contractor, 2015). For example, network structures among team members have been linked with leader emergence (Balkundi, Kilduff, & Harrison, 2011; DeRue, Nahrgang, & Ashford, 2015). Leaders occupying advantageous network positions (e.g. central position) influence their followers’ utility (Galunic, Ertug, & Gargiulo, 2012), network positions (Bono & Anderson, 2005), and voice behavior (W. Liu, Tangirala, & Ramanujam, 2013).

Further evidence suggests that follower networks also have positive effects on both team task performance and viability and that these effects are strengthened when leaders are located at the center of social networks (Balkundi & Harrison, 2006). Adopting a social network perspective, Balkundi and Kilduff (2006) maintained that a leader’s cognitive representation of the patterns of relationships within various networks influences subsequent social interactions, choices, and effectiveness (c.f., Hernandez, Eberly, Avolio, & Johnson, 2011). Balkundi and Kilduff (2006) and Sparrowe and Liden (1997, 2005) argued further that leader-follower relationships can be understood fully
only when they are examined within the complex social environments in which the leaders and followers are embedded. The foregoing provides good reasons to believe that social structure has implications for the occurrence and consequences of leader abuse.

Second, the social network perspective has the potential to offer new insights into why certain followers are more likely to become targets of leader abuse because leaders inclined to hostility do not necessarily target all of their followers (Tepper, 2007; Aquino & Thau, 2009). The examination of why leaders are more likely to abuse some followers rather than others has focused on identifying victim characteristics—distinct factors that make followers ready targets of abusive supervision (e.g., trait negative affectivity and dissimilarity: Tepper, Duffy, Henle, & Lambert, 2006; Tepper, Moss, & Duffy, 2011). The lens of the social network approach shifts the focus away from individual traits among followers and onto the role played by the pattern of social relationships in which leaders and followers operate.

Lastly, applying a social network approach offers a more comprehensive understanding of the factors that encourage and discourage leader abuse. Specifically, social network theorizing identifies opposing processes that link leader and follower network positions with leader abuse. One of these processes follows from the social benefit perspective (Adler & Kwon, 2002), which suggests that social relationships provide access to positive tangible and intangible resources that inhibit leader abuse. The second process follows from a social cost perspective (Adler & Kwon, 2002), which suggests that social relationships can bring negative psychological consequences that encourage leader abuse. Because of this, the effects of social networks on leader abuse
are complex. The same social structures of leaders and followers may either encourage or
deter leader abuse. Thus, adopting a social network approach yields a more nuanced
understanding of the role that social environment play in explaining abusive supervision.

In sum, this dissertation will investigate both the social benefits and social costs
of the network positions of leaders and followers, as well as the boundary conditions that
strengthen or weaken the mediating effects of leaders’ and followers’ network positions
on abusive supervision. By integrating the mechanisms of social benefit and social cost
into theory of leader abuse, I will address the question of when and how social networks
may encourage or inhibit the occurrence of leader abuse. The broad research questions I
explore are 1) what social network factors encourage or deter abusive supervision and 2)
what social network factors predispose subordinates to be more likely targets of abusive
supervision?

This dissertation also has practical implications. Knowing why some leaders are
abusive can provide the basis for interventions designed to prevent such behaviors,
thereby enhancing organizational effectiveness. In addition, findings on the association
between social networks and leader behavior can inform human resource management
policy-making, which is designed to improve employee and team well-being and
performance by increasing social benefits and decreasing social costs (Kaše, Paauwe, &
Zupan, 2009).

Chapter 2 presents a selective literature review, which provides the theoretical and
empirical rationale for the dissertation by focusing on predictors of abusive supervision,
and the application of the social network approach in leadership literature. In addition,
Chapter 2 provides an overview of key tenets of the social network approach and reviews what has been learned about the benefits and costs of social networks. Chapter 3 presents the proposed conceptual model and hypotheses. The model that I propose addresses the effects of leader centrality and team member centrality in intra-team social networks (i.e., the structure of social relationships within teams). The feature of the model that addresses leader centrality will examine how a leader’s position in intra-team networks influences abusive supervision directed at the team in general. The part of the model that focuses on team member centrality will examine how a team member’s position in intra-team networks affects individual-level abusive supervision. The model also posits cross-level effects of leader centrality on the effects of team-member centrality. Chapter 4 describes the methods that were used to test the hypotheses, including the sample, procedures, measures, and analytical strategy. Chapter 5 report empirical results of the study with 289 leaders including descriptive statistics, regressions, and mediation/moderated mediation analysis. In Chapter 6 I discuss the dissertation’s findings, theoretical and practical implications, and study limitations.
CHAPTER 2
LITERATURE REVIEW

This chapter describes the findings of prior theoretical and empirical studies that are relevant in building specific arguments about the association between social networks and leader abuse.

Figure 1. Relationships between theoretical perspectives used in the study

Figure 1 presents a conceptual framework of the effects of social networks on abusive supervision. Network leadership theory will be used to explain how the network positions of leaders and team members lead to mechanisms of social benefits (e.g., belief
that leaders are trusted, perceived utility of a team member) and social costs (e.g., ego-depletion, identity threat). Theories of trust, ego-depletion, moral exclusion, and identity will be invoked to explain how the social benefit and cost mechanisms, in turn, influence leader abuse at the team and individual levels.

The main purpose of this dissertation is to identify the social network antecedents of abusive supervision. That is, I assume that the social network positions of leaders and team members influence subsequent leader abuse. It is conceivable that the relationship among network position and abusive supervision is reversed such that performing acts of abusive supervision influence the positions of leader and followers in intra-team social networks. While acknowledging these possibilities (i.e., see the dotted line in Figure 1), my focus is on social networks as an antecedent, rather than a consequence, of leader abuse.

Given past research that has demonstrated the negative effects of abusive supervision, the prediction regarding social networks as a consequence of leader abuse is relatively straightforward. Leader abuse would make both the leader and the victim of abuse less central in intra-team social networks. However, the effects of social networks on leader abuse is unclear and complex because social networks provide both benefits and costs, which can either increase or decrease leader abuse. Thus, in this dissertation, I recognize the possibility of leader abuse as an antecedent of social networks, but I focus on examining the social networks as antecedents of the occurrence of leader abuse.

In the section that follows, I conduct a selective literature review on the predictors of abusive supervision and identify gaps in relational approaches to the study of abusive
supervision. Then I discuss how the social network approach has been applied in the leadership literature, acknowledging that abusive supervision is a relational phenomenon. Finally, I will demonstrate the benefits and costs of social relationships, as well as the way in which centrality in intra-team networks has been conceptualized in the management literature.

**Antecedents of Abusive Supervision**

A review of studies that have examined the predictors of abusive supervision is necessary to illustrate the value of examining the leader abuse from a social network perspective. Despite extensive research and our advanced understanding of the negative influences of abusive supervision on organizational outcomes, further research is warranted to determine when and why some leaders are more abusive than others (Tepper, Simon, & Park, 2017). To date, studies of the predictors of leader abuse fall into four categories: organizational characteristics, leader characteristics and experiences, follower characteristics and experiences, and relational factors, such as leaders’ social relationships with peers.

**Organizational factors**

Within the organizational predictor category, studies of leader abuse have shown that leaders who become distressed and frustrated by their organizational context ultimately display hostility toward their followers. For example, Tepper et al. (2006) found that procedural injustice positively predicted abusive supervision through the leaders’ experience of depression. Extremely difficult organizational goals increased leader abuse because of the high anxiety engendered by unrealistic goals (Mawritz et al., 2017).
In addition, a high workload increases the frequency of leader abuse, again because of stress (Burton, Hoobler, & Scheuer, 2012). Finally, a study by Mawritz et al. (2014) demonstrated that leaders’ perceptions of a hostile team climate increased abuse. Leaders who perceived that their team members were hostile to each other were more likely to justify their own hostile behaviors toward team members.

**Leader characteristics and personal experiences outside of the organization**

Prior studies have found that leaders with certain personal histories or personality traits tend to display hostility toward followers. For example, leaders exposed to family aggression were more likely to engage in abusive behavior (Kiewitz et al., 2012) because they perceive others to be more hostile themselves (Garcia et al., 2014). Sleep deprivation in leaders has also been found to contribute to more frequent abusive behavior because it depletes the self-regulatory resources through which leaders control their impulsive behaviors (Barnes et al., 2015; Byrne et al., 2014).

In addition, personal traits have been shown to influence leader abuse. For instance, Machiavellian leaders tend to be more abusive than non-Machiavellian leaders (Kiazad, Restubog, Zagenczyk, Kiewitz, & Tang, 2010), whereas leaders with high emotional intelligence are less abusive than those with low emotional intelligence (Xiaqi, Kun, Chongsen, & Sufang, 2012). Furthermore, a leader’s identity can affect the frequency of daily abusive supervision. In their study of the association between leader identity and daily behavior, Johnson et al. (2012) found that leaders with individual-oriented identities are more likely to exhibit abusive behavior compared to those with
collective and relational identities because leaders with individual identity want to
differentiate themselves from their subordinates by exercising power.

**Follower characteristics and experiences**

Studies that have addressed follower characteristics have examined why leaders
selectively abuse certain followers. In essence, evidence suggests that leaders abuse
followers who are difficult to work with and do not perform well. For example, followers
with high negative affect tend to be targets of leader abuse (Chan & McAllister, 2013;
Tepper, Duffy, Henle, & Lambert, 2006). Followers with perceived low performance
become targets of leader abuse because those followers may harm the leader’s
performance and reputation (Walter et al., 2015). Furthermore, followers who are
perceived to have personal values incompatible with those of their leaders are more likely
to be abused because leaders perceive more relational conflicts with such followers
(Tepper et al., 2011).

**Relational Factors as Potential Predictors of Abusive Supervision**

Aspects of the organizational context also influence leader abuse, including
leaders’ interpersonal interactions with their peers as well as those with their team
members, which are key elements of social networks. For example, Harris et al. (2011)
found that leaders who had conflicts with their peers was more abusive toward their
members (Harris, Harvey, & Kacmar, 2011). They also found that leaders whose abuse
derived from relational conflicts targeted followers with whom they had low quality
relationships. Tepper et al. (2011) also found that perceived conflicts in relationships
between leaders and members were a direct predictor of leader abuse.
Conflicts can arise easily within social relationships that leaders have with various contacts. Simmel (1950) noted that even people in positive relationships (e.g., advice, friendship) can have insignificant differences of opinion or allusions to an antagonism of personalities, resulting in unpleasant experiences. In this regard, social networks, which map an individual’s relationships, can be one of the factors that influence leader abuse. Given that even positive ties may carry conflicts, the collection of those social relationships may make leaders hostile to others. For example, negative ties or relationships between individuals who do not like each other (i.e., are engaged in “relationship conflict” or have negative feeling toward each other) have been suggested to have implications for harming behaviors and decreased trust (Chua, Ingram, & Morris, 2008; Venkataramani & Dalal, 2007).

Despite the potential influence of relational factors on leader abuse, it is unclear whether social environments facilitate or constrain leader abuse and, and if so, why social networks influence leader abuse. The social network approach suggests that networks of interpersonal ties are an important influence on individuals’ behavior and attitudes (Coleman, 1988; Granovetter, 1985). Based on this approach, there is emerging evidence that social networks play a key role in understanding leadership phenomena; social networks have conditions that can increase or decrease leader effectiveness or facilitate certain leader behaviors. The next section discusses recent developments in studies of leadership and social networks and how these developments apply to understanding leader abuse.

*Developments of the Social Network Approaches in the Leadership Literature*
This section discusses how the social network approach has been applied to understand the phenomena of leadership. Table 1 provides definitions of various terms that are used in social network literature and are helpful for understanding subsequent discussion of social network and leadership.
<table>
<thead>
<tr>
<th>Terms</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social networks</td>
<td>Structure of interpersonal/social relationships in an organizational unit. Depending on the contents of the relationships, there exist various kinds of social networks: advice networks (structure of advice exchange ties), friendship networks (structure of friendship ties), leadership networks (structure of who considers whom as an informal leader)</td>
</tr>
<tr>
<td>Degree centrality</td>
<td>The number of direct ties that an actor has with other members in an organization.</td>
</tr>
<tr>
<td>Between-ness centrality</td>
<td>Extent to which an actor mediates, or falls between any other two actors on the shortest path between those two actors. Usually averaged across all possible pairs in the network.</td>
</tr>
<tr>
<td>Closeness centrality</td>
<td>Extent to which an actor is close to, or can easily reach, all the other actors in the network. Usually measured by averaging the path distances (direct and indirect links) to all others. A direct link is counted as 1, indirect links receive proportionately less weight.</td>
</tr>
<tr>
<td>Density</td>
<td>Ratio of the number of actual links to the number of possible links in the network.</td>
</tr>
<tr>
<td>Bridging ties</td>
<td>Ties that connects different people in different groups.</td>
</tr>
<tr>
<td>Closure ties</td>
<td>Ties that connects different people who are already connected via other people in the same group.</td>
</tr>
<tr>
<td>Density</td>
<td>Ratio of the number of actual links to the number of possible links in the network.</td>
</tr>
<tr>
<td>Tie strength (e.g. strong tie vs. weak tie)</td>
<td>Extent to which two actors are closely connected to each other. Typically measured with amount of time, emotional intensity, or intimacy.</td>
</tr>
</tbody>
</table>

**Table 1. Definitions of various social network terms** (Brass, 2012; Kilduff & Brass, 2010; Wasserman & Faust, 1994)

Although the social network approach is relatively new in the investigation of abusive supervision, the leadership literature has adopted it as an aspect of the relational view of leadership. Growing interest in the association between social networks and
leader behavior stems from the various activities in which managerial leaders are engaged. The nature of managerial work is complex and spans multiple functional roles (Minzberg, 1973), each of which can lead to the development of various social relationships in an organization. Leaders develop strategies to achieve goals, communicate an organization’s vision and mission, manage information and resources, motivate team members, and assess processes and the performance of their team and members (Morgeson, DeRue, & Karam, 2009; Zaccaro, Rittman, & Marks, 2001). A primary responsibility of leaders also involves managing social relationships (Balkundi & Kilduff, 2006). A large portion of those relationships are developed with their own team members as well as with peer leaders, their own supervisors, stakeholders outside their organizations (Oh, Labianca, & Chung, 2006).

The social network approach includes theoretical arguments regarding the effects of individuals’ positions in the web of their social relationships on various outcomes, as well as analytic techniques with which to address various patterns of social relationships (Borgatti, Mehra, Brass, & Labianca, 2009). Specifically, network leadership literature theorizes and analyzes the patterns of various interpersonal ties among leaders and followers, which specify how followers are interconnected and how leaders are connected both to their followers and to diverse contacts in organizations (e.g., peers, upper level management).

Carter et al. (2015), after conducting a comprehensive review of leadership and network studies, suggested that the notion of social networks in leadership have been used in two different areas. The first area is called “leadership in networks.” In this area,
a social network is a pattern of interpersonal exchange, such as advice networks, friendship networks, and communication networks. Studies in this area examine how interpersonal exchange networks, in which leaders and followers are embedded, influence leader effectiveness. The second area is identified as “leadership as networks.” In this area, social networks are leadership networks, which refer to the pattern of who considers or perceives whom as leaders. Research in this area investigates, for example, what factors affect the emergence of leadership networks, or whether density of leadership networks in work teams (i.e., the extent to which team members see other team members as informal leaders) is associated with team outcomes.

Studies in these two areas (i.e. “leadership in networks” and “leadership as networks”)—have shown key findings regarding how social networks affect leader effectiveness, how leaders perceive social networks, and how social networks affect leader emergence. First finding is that social networks influence a leader’s instrumental outcomes. Studies in the area of “leadership in networks” have focused to a considerable degree on the role of social networks in explaining leader effectiveness including follower satisfaction, team task performance, and the leader’s own performance. In essence, leaders’ social networks provide access to diverse information or an increased prestige, both of which enhance their effectiveness (Balkundi & Kilduff, 2006; Oh, Chung, & Labianca, 2004). For example, when leaders occupy central positions in intra-team friendship networks, teams were more likely to achieve higher objective task performance than when leaders were peripheral because leaders collect and disperse information more quickly (Mehra et al., 2006). Formally appointed leaders who connect
informal leaders within teams achieve better team effectiveness because those leaders have access to both formal and informal powers at multiple levels, which enable them to access to proper resources (Oh et al., 2006). Leaders with a high density of team advice networks (i.e., the frequency with which advice is exchanged among team members) have been shown to enhance team performance (Zhang & Peterson, 2011). Finally, a meta-analysis that examined social networks and team effectiveness demonstrated that when leaders are centrally positioned in informal networks of advice and friendship, teams function better (e.g., higher task performance and team viability) (Balkundi & Harrison, 2006).

The second finding shows that leadership effectiveness can be better achieved when leaders ‘accurately’ perceive social networks of their team members (i.e., how members are connected to each other in their teams). Individuals watch or monitor others’ social connections and build a cognitive schema of team or organizational social networks. The cognitive map of social relationships, which is termed cognitive social structure (CSS) in social network literature, has been shown to influence individuals’ cognitive processes such as decision making and attribution (Brands, 2013). People monitor their social networks to get ahead or obtain access to valuable resources (Brass, 2012; Brass, Galaskiewicz, Greve, & Tsai, 2004). Network leadership theory suggests that leaders’ cognition on the pattern of interpersonal social relationships play a key role in achieving high effectiveness (Balkundi & Kilduff, 2006). In essence, accuracy of perception regarding intra-team interpersonal relationships helps leaders to learn the flow of informal resources and better utilize the flow to enhance team effectiveness.
Third finding is that leaders’ network cognition influences the appraisal of the self and their followers, which may influence leaders’ behaviors toward the followers. Human behaviors are a function of individual characteristics and their subjective perception on surrounding environments (Lewin, 1939). People know their internal states by “inferring them from observations of their own overt behavior and/or the circumstances in which this behavior occurs” (Bem, 1972, p 2). Leaders may assess their internal states based on their own social interaction with others in teams or organizations. When connected to team members as friends, leaders may feel positive emotions and satisfied with their jobs. Being at the center of advice and friendship networks has been shown to increase relational satisfaction (i.e., the extent to which employees are satisfied with their social relationships at work), resulting in higher attachment to organizations (Venkataramani, Labianca, & Grosser, 2013). In addition, network cognition influences how leaders or followers appraise other members in their teams (i.e., how leaders think about each follower or how followers think about leaders). For example, followers’ perceptions about their leaders’ network position affected their attribution process regarding leaders’ charisma. Specifically, Brands et al. found that female leaders were perceived as charismatic when team’s social networks were dense and cohesive, whereas male leaders were perceived as charismatic when a team’s social networks were centralized (Brands, Menges, & Kilduff, 2015). This finding complements the traditional view that the individual characteristics affect attribution processes by showing that cognition of social structure influences attribution process. When the networks of interpersonal exchange ties between leaders and followers are too sparse, intra-team trust (i.e., the extent to
which team members trust each other) decreases, making team members perceive low procedural justice (D. Liu, Hernandez, & Wang, 2014). Mehra et al. (2006) found that the number of leaders’ social connections with peer leaders was positively associated with the follower-rated leader reputation. Followers may consider their leaders to be highly influential and have high status because of their position in team or organizational networks; thus, leaders’ social networks could influence cognitive and emotional appraisal of leaders or followers, which could be key mechanisms of attitudinal or behavioral outcomes of leadership.

Lastly, the social network approach in leadership literature finds that there exist informal leaders regardless of whether teams have appointed formal leaders (i.e. “leadership as network” area). Whereas formal leaders are designated by organizational authorities, informal leaders emerge based on social interaction within teams or organizations (Oh et al., 2006). One of the first experiments that examined network structure in the laboratory setting was designed to identify how informal leadership is associated with positions in social networks. In these experiments, a person occupying a central position in a communication network (cf. a position that has potential for more activities and control in teams) was more likely to be perceived as a leader even when other personal attributes were not known to participants in the studies (Freeman et al., 1979). This result indicates that any individuals occupying certain structural positions in social networks can emerge as informal leaders. Recent evidence suggests that informal leaders emerge out of perception of competence, warmth, and charisma in self-managing MBA project teams (DeRue et al., 2015). Specifically, authors found that the extent to
which a team member exchanged work-related advice within a team (i.e., centrality in advice network) was associated positively with the likelihood that the focal person would be a future leader because the central team member was perceived to have expertise and charisma (Balkundi et al., 2011). Furthermore, literature on the notion of shared or distributed leadership suggests that the role of leadership can be distributed to team or organizational members. In this view, all team members can be an informal leader to the extent that each team member has an influence on overall team functioning. Evidence from meta-analysis has shown that distributed leadership has positive effects on team performance, and this relationship is stronger when studies used measures of social networks (D’Innocenzo, Mathieu, & Kukenberger, 2014). The authors further contended that applying a social network approach in shared leadership studies embraces a more nuanced understanding than other approaches (e.g., aggregation approach) with richer and informative measures.

As discussed above, leaders’ social networks generally provide benefits to leaders and increase team effectiveness. On one hand, these relationships can be instrumental resources that convey valuable information and help leaders achieve their own goals. On the other hand, through these relationships leaders express their feelings, become emotionally charged and satisfied with their work environments (Venkataramani et al., 2013). In addition, social networks help people become informal leaders. However, social relationships come with costs (Adler & Kwon, 2002; Labianca & Brass, 2006). To accrue benefits from work relationships, leaders must invest time and energy to maintain those relationships (Burt, 2000). In the course of maintaining social relationships, leaders may
accrue socio-emotional or instrumental support, but they may also experience an impaired ability to exercise control over volitional behavior (Yang, Liu, Nauta, Caughlin, & Spector, 2014). In addition, formal leaders may perceive status or power conflict with informal leaders. As network cognition can be biased, people tend to overestimate their own or others’ central position (Brands, 2013). Thus, biased network cognition could create perceived conflicts that may lead to hostile behaviors, increasing costs of social networks. Hence, social relationships play complex and dynamic roles in determining what leaders do and how their behavior influences important outcomes (Mathieu et al., 2014).

Although these studies have advanced our understanding of the association between social networks and leadership by focusing on leader emergence and the informational advantage, there remains an important gap with respect to how social networks affect leader behaviors and the mechanisms by which leader or follower positions in social networks influence leader behaviors. This warrants further investigation because social relationships not only provide benefits to individuals by allowing them to gain information, status, and influence, but also include costs in the form of time and energy (Burt, 2000). This implies that both the benefits and costs of social networks on leader behavior warrant further study (Adler & Kwon, 2002; Kwon & Adler, 2014). In the sections that follow, I review theoretical perspectives that are relevant to understanding how the properties of social networks influence the psychological experiences of leaders and their subsequent behaviors (i.e., leader abuse).
**Benefits and Costs of Social Networks**

**Network Theory of Social Capital**

Network theory of social capital (Lin, 1999, 2008) is used for the discussion of how social networks affect leaders’ psychological experience. Network theory of social capital is distinctive in that it considers network characteristics as antecedents of social capital whereas other theories often consider network characteristics as a part of social capital (e.g. Nahapiet & Ghoshal, 1998). In the network theory of social capital, social capital is defined as resources that are embedded in one’s social networks and can be accessed or mobilized through ties with other actors (Lin, 1999, 2008). Assuming actors in social networks are agents who pursue their own benefits in competition with other actors, the network theory of social capital suggests that actors’ network characteristics or the positions that actors occupy in social networks are antecedents of social capital. In other words, social networks generate and provide access to various forms of social capital (Lin, 2008), or social capital is “a function of actors’ location in the structure of their social relations” (Adler & Kwon, 2002, p 18). The presence and absence of social relationships provide opportunities to embedded actors, and these opportunities materialize when contacts in social networks have the ability and motivation to help the focal actor (Adler & Kwon, 2002).

Leaders and followers in social networks pursue various goals and use their social relationships as a means to achieve those goals. Broadly speaking, there are two main goals that can be achieved via social networks: instrumental and expressive (Lin, 2008). Instrumental goals are about getting things done, whereas expressive goals are about
expressing and sharing actors’ feeling and opinions (Ibarra & Andrews, 1993; Umphress, Labianca, Brass, Kass, & Scholten, 2003). This is consistent with the theory of group social capital, which suggests strong and closed interpersonal relationships increase trust whereas weak and bridging relationships are useful for obtaining novel information (Oh et al., 2006). For instance, followers form advice exchange relationships with leaders or coworkers to obtain work-related information and achieve task-related goals. They also form friendship ties with their leaders and coworkers to share their emotions and seek empathy. The most frequently studied benefits of social networks are information and emotional support; however, social networks play more complex roles in hierarchical organizations especially when considering psychological benefits and costs of networks. Regardless of whether they intend to or not, leaders and followers may receive benefits other than information and emotional support through a certain pattern of social relationships. Among many, specific benefits that networks may provide include information (Burt, 1997, 2014; Granovetter, 1973), power and influence (Brass, 1984), identity (Mehra et al., 2006; Mehra, Smith, Dixon, & Robertson, 2006), and trust (Coleman, 1988). But with those benefits come costs, including time/energy consumption, over-embeddedness, and social fragmentation.

**Social Benefits: Gains of Social Networks**

One major social benefit from networks is novel information. Social networks are pipes that provide individuals various kinds of information. Leaders may have access to novel and lateral information through connections to their followers and strategic information through connections to peer leaders or their own bosses (Wilson, Sin et al.,
Granovetter (1973) contended that tie strength, which refers to the extent to which two actors are closely and intensely connected to each other, determines the nature of information that an actor can obtain. While strong ties enable an actor to be connected to similar actors, weak ties enable an actor to be connected to diverse contacts in various social groups. Thus, weak ties can lead to the access of more novel information than strong ties. For example, more so than strong ties, weak ties increased the probability of creativity, innovation (Perry-Smith, 2006; Perry-Smith & Shalley, 2003), and obtaining a new job (Granovetter, 1973).

A second benefit from social networks is an increase in an actor’s power and influence. Certain social relationships generate dependency on another actor. For example, a task-advice relationship is a tie between a person who provides task-related advice and the person who receives it. In this relationship, the provider of advice tends to have power and influence over the receiver because the advice may guide the receiver’s behavior and thought (Emerson, 1962). In-degree centrality (i.e., the number of other actors who nominate a focal person as a friend or advice/information giver) is the network characteristic that is often used to study power and influence as a form of social capital. Evidence suggests that a central person in the advice networks has more power and influence than non-central people (Brass, 1984; Brass & Burkhardt, 1993). Relatedly, formally appointed leaders at the center of informal advice and friendship networks may have informal power in addition to their formal power based on authority and rewards. However, for the same reason, central team members may be less dependent on their
team leaders because the central members have informal power over other team members.

Third, social networks develop one’s identity. Identity is “a set of meanings applied to the self in a social role or situation that defines what it means to be who one is” (Burke & Tully, 1977). Identity in organizations can be constructed by roles, expectations, or social interaction with other coworkers (Stets & Burke, 2000). Dense social networks consisting of strong and redundant interpersonal ties clarify the role and expectation for each individual in the networks through repeated interaction with same contacts. For example, newcomers with dense and strong social networks are more likely to have higher role clarity and task mastery than those with sparse and weak networks (Morrison, 2002). Mentor-mentee relationships can influence the formation of one’s identity in organizations because mentors can set specific expectations for mentees, or vice versa (Podolny & Baron, 1997). Social networks are closely related to the formation of leader identity because informal leaders emerged based on social interaction are expected to play a role as a leader. A person at the center of advice networks become charismatic leaders as others asking task-related advice expect certain roles for the central person (Balkundi et al., 2011). Furthermore, being closely connected to organizational members generates social identity to the individual by providing personal sense of belonging to the organizations (Coleman, 1988).

Lastly, social networks help develop trust among team members. Trust refers to “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the trustor,
irrespective of the ability to monitor or control that other party” (Mayer et al., 1995, p. 712). Frequent and intense interactions among team members, a social network characteristic that is defined as density, enable team members to closely monitor each other’s behaviors and create behavioral norms that prevent team members from committing deviant behaviors (Coleman, 1988). This environment reduces the risk of being vulnerable to others, resulting in higher interpersonal trust among team members. Furthermore, voluntary and frequent social interactions among the same team members are likely to elicit positive emotions and a sense of belonging, which are the necessary conditions for developing trust (McAllister, 1995). For instance, Wong and Boh (2010) found that the density of an employee’s social network was associated positively with the focal employee’s reputation for trustworthiness.

**Social Costs: Risks and Perils of Social Networks**

Social networks provide many benefits but also come with costs. Social costs refer to the potential risks of interpersonal relationships and may exceed social benefits (i.e., social benefits of networks). Based on network literature, I suggest that there are three types of social costs including time/energy consumption, over-embeddedness in existing social relationships, and social fragmentation. First, the social cost of time/energy consumption is seen in the maintenance of relationships. Adler and Kwon (2002, p. 30) stated, “Building social capital requires considerable investment in establishing and maintaining relationships, and, as with any expensive investment, social capital investment may not be cost efficient in certain situations.” Despite the evidence that social relationships bring benefits, the activities required for relationship
maintenance may consume mental energy and result in low performance or an impaired ability to regulate behaviors. For example, a higher number of multiplex workplace friendships—those in which an affective and a task-exchange relationship coexist—has been shown to increase emotional exhaustion or the feeling of a lack of energy or resources because managing such intimate ties engenders resource drain (Methot, Lepine, Podsakoff, & Christian, 2016). Star employees who demonstrate performance superior to that of others, and thus are visible in the organization, may attract more social connections than others and experience information overload; this can result in subsequent low performance because they fail to manage the in-coming social relationships of other actors in the organization (Oldroyd & Morris, 2012). Managing relationships is time-consuming and exhausting for managerial leaders as well. Although maintaining interpersonal ties within their teams enhance information sharing, trust, and ultimately team effectiveness, leaders may suffer from emotional exhaustion stemming from day-to-day interpersonal interactions with their team members.

Second, individuals can be overly embedded in existing social relationships. The problem of being over-embedded stems either from the perceived obligation to reciprocate the goodwill of the other party or from the simple tendency to repeat transactions with the same partner, despite few explicit benefits. Being embedded in certain social relationships can backfire because individuals can become locked in relationships that yield only redundant information and delayed outcomes. For example, managers who only had strong ties with their peers and lacked diverse contacts in different social groups failed to adapt themselves to new external demands because they
could not disconnect from their existing social relationships and form the new ones required to obtain novel, necessary information (Gargiulo & Benassi, 1999). Similarly, in a study that examined the success of firms in the apparel industry, Uzzi (1996) found that embedded ties, which are characterized by trust and rich information, decreased a firm’s probability of success by making them vulnerable to external shocks or preventing them from obtaining information outside of their networks. Team leaders embedded in strong social networks may also have strong in-group biases and lose diverse contacts outside of teams, therefore lacking access to innovative ideas (Oh et al., 2006).

The last social cost of interpersonal networks is social fragmentation of a team or an organization. Individuals tend to interact with and be connected to similar members, forming social clusters within a team or an organization. These social clusters emerge over time based on similarities in individual attributes (e.g., gender, race, educational background) and are characterized by high cohesion (Balkundi, Kilduff, Barsness, & Michael, 2007; Coleman, 1988). The problem with social fragmentation may occur when different social clusters in the same team or organization experience conflicts. Despite high cohesion among individuals in the same cluster, those in different social clusters are less likely to achieve high cohesion unless there are relationships across clusters. Thus, a team or an organization that has many social clusters but few cross-cluster ties is fragile and subject to disintegration because fundamental differences among social clusters may increase conflicts and prevent information sharing (Granovetter, 1973; Kilduff & Brass, 2010). Team leaders could resolve the problem of social fragmentation by being connected to the informal leaders of each social cluster. Informal leaders in sub groups
emerge out of frequent interaction and are influential to members of those sub groups. Leaders who bridge different social clusters could be more effective than those who do not because they are able to manage both formal and informal resources (Oh et al., 2006).

Social networks are a pattern or regularity of interpersonal ties. Depending on an individual’s position in social networks, the individual would have different types of social benefits and costs. Among many network positions or characteristics, degree centrality is the focus of this dissertation. In the next section, I will discuss what centrality is, why degree centrality was chosen as a focal construct, and how the degree centrality of leaders and team members bring about social benefits and costs.

**Centrality in Intra-team Social Networks**

This section explains the core network characteristic relevant to arguments in this dissertation and central to understanding further the association between social networks and leader behavior, namely, centrality. Centrality is one of the concepts studied most often in social network research. The concept of network centrality was developed in an attempt to identify the important actors in social networks. Centrality can be conceptualized and measured in various ways depending on the particular nuances of actor location that researchers want to capture, such as between centrality, closeness centrality, and degree centrality (Borgatti, 2005). My focus is on “degree centrality,” which is most relevant to my theory of network effects on leader abuse.

Degree centrality refers to the degree to which individuals are involved in informal social interactions with their direct contacts (Freeman, 1978). Degree centrality was chosen because it is the network position that is closely related to power and
influence, both of which are also closely related to informal leader emergence. Furthermore, degree centrality represents the frequency of social activities with team members, which is the easiest network characteristic to observe. Degree centrality differs from other centrality measures in that it only considers direct ties (i.e., ties between an ego and an ego’s contacts), whereas other centrality measures also consider indirect ties (i.e., ties among contacts of ego’s contacts). Because direct ties are more visible than indirect ties, degree centrality would have stronger influence on an ego’s subsequent cognition and behaviors.

Setting boundaries for social networks is important because the meaning of centrality could differ depending on the network boundary (e.g., centrality in organizational networks vs. centrality in intra-team networks). In this dissertation, I will focus on intra-team networks, which refer to a set of informal social relationships among the leader and followers of one team. Intra-team networks are critical to leader behavior because much of a leader’s activities involve interaction with his or her followers. For example, recent reviews of team leadership have indicated that core functional roles of team leadership include coaching, support, selection of competent team members, and communication with team members of goals and expectations (Morgeson et al., 2009). These activities are related closely to intra-team social networks rather than to a leader’s external social relationships. Furthermore, teams can have multiple sub-groups that create a dynamic environment. How these sub-groups are connected to or disconnected from each other has implications for leader behavior and effectiveness because such connections could promote or hinder information exchange or influence team cohesion.
(Oh et al., 2006). For example, teams with high demographic diversity tend to have more sub-groups (Balkundi et al., 2007). A leader at the center of intra-team networks achieves better team task performance because the leader manages information flow and conflicts between sub-groups in the same team better than a non-central leader does because a central leader uses both formal power (e.g., authority) and informal power (e.g., expertise) (Balkundi & Harrison, 2006).

Figure 2 is a visual representation of a hypothetical intra-team network. Each square represents either a leader or a team member. Lines linking the squares are social ties that connect team members in the same team. Social ties can be any informal social interaction between two actors within the same team. Team members may provide emotional support indicative of a friendship. Some team members may come to their leader to ask for monetary resources or task-related advice.

Figure 2. Illustration of various network positions in intra-team networks
In figure 2, a leader in position A has higher degree centrality in intra-team networks than a leader in position B because a leader located in position A in figure 2 has nine informal social relationships with other team-members (i.e., degree centrality = 9), whereas a leader located in position B has three informal social relationships with other team-members (i.e., degree centrality = 3). The higher the degree centrality, the more frequently the actor is involved in social interactions within the team. Centrally located actors are involved in the team’s major activities and are often highly visible to others; peripheral actors with low degree centrality are less involved in team activities and less visible to others.

The social network literature recognizes the notion of directed networks where ties have direction that characterizes the flow of resources between links in social networks. For example, advice networks include givers and receivers. Accordingly, network scholars distinguish between in-degree centrality, which refers to the number of ties directed at a focal actor in certain networks, and out-degree centrality, which refers to the number of ties that a focal actor directs to other network members. This distinction has implications for social capital and psychological experiences of actors in social networks. For example, leaders with high in-degree centrality in friendship networks (e.g., many followers indicate the leader as friends) can be termed as popularity whereas leaders with high out-degree centrality (e.g., a leader goes to many followers seeking for friendship) indicates gregariousness. Leaders with high in-degree centrality in advice
networks (e.g., many followers come to the leader seeking advice) may experience higher levels of self-perceived influence, whereas leaders with high out-degree centrality (e.g., a leader goes to many followers to seek advice) may experience lower levels of self-perceived expertise or influence. Moreover, an information receiver may have an advantage of having novel information, whereas an information provider does not enjoy any advantage, instead spending time and energy providing information or advice (Gargiulo, Ertug, & Galunic, 2009).

Because the concept of centrality was used initially to identify important actors in social networks, in-degree centrality was a major focus of network scholars, who examined its direct effects on performance, power, and influence. For example, Brass and Burkhardt (1993) found that central individuals in organizational networks have greater access to resources, such as information, and in turn have control over others who depend on that information. Leaders at the center of peer friendship networks had higher sales performance and better reputations than less central leaders because the latter obtained more novel information from external networks (Mehra et al., 2006). Employees with high in-degree centrality in information and advice networks have been shown to be more influential in affecting coworkers’ opinions regarding organizational justice (Umphress et al., 2003). Other evidence suggests that centrality in advice networks increases perceived personal influence, which in turn increases voice behavior (Venkataramani & Tangirala, 2010). In essence, in-degree centrality has been linked to influence and power in terms of what observers or third parties think about the central position.
What is relatively unclear in the social network literature is how in-degree centrality affects the way the focal actor sees him or herself. As discussed in the literature review section, social networks provide both psychological benefits and costs. In-degree centrality in various networks (e.g., communication, friendship, advice) has been shown to be associated positively with relational satisfaction (Venkataramani et al., 2013). As central employees engage in various work interactions and receive emotional support, they may perceive that their coworkers are friendly and supportive. These feelings may develop as felt status or prestige, which may lead the central employee to evaluate his or her relationships and social environment more positively.

By comparison, having many social relationships can be exhausting to focal individuals because they expend time and energy to maintain the relationships (Yang et al., 2014). Building on this evidence, this dissertation will develop a conceptual model of how leader or follower centrality in intra-team social networks affects the likelihood of leader abuse. In Chapter 3, I introduce various psychological mechanisms, as engendered by social networks, to develop arguments on how leaders’ or subordinates’ central positions in intra-team networks can be beneficial or detrimental for themselves in terms of leader abuse.
CHAPTER 3
CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

Leader Centrality and Team-Level Abusive Supervision Model: Why are some leaders more abusive than others to their team members in general?

Individuals’ positions in social networks engender instrumental outcomes such as job search, promotion, reputation, and performance (Brass et al., 2004); however, it is less clear how social networks affect the internal state (e.g., cognition and emotion) of the actors who are embedded in them. This is important because studying network effects on actors’ internal states opens the possibility of discovering various psychological mechanisms between social network characteristics and outcomes such as leader behavior and performance. Although there have been studies that investigate how social networks affect an individual’s cognition, the stream of network cognition research has mostly focused on how accuracy of actors’ perception of social networks affects their performance (Krackhardt, 1990) or how that accuracy is influenced by individuals’ characteristics (e.g., status) (Menon & Thompson, 2007).

A lack of consideration of the psychological mechanisms by which social networks influence individual behaviors or attitudes has yielded unclear findings on how social networks affect individuals’ attitudes and behaviors. For example, some studies found that central actors are more committed to their organizations than those in
peripheral positions (Morrison, 2002), whereas other studies found null relationships between an actor’s network position and their satisfaction (Brass, 1981). The latter studies hypothesized and examined the association between centrality and attitudes, assuming positive effects of social networks on those attitudes and not explicitly hypothesizing or measuring intervening psychological mechanisms. The unclear relationship could be fundamentally flawed by ignorance of the various psychological mechanisms by which social network positions shape attitudes or behaviors.

Because social networks elicit both positive and negative psychological consequences, even a central position can bring either positive or negative consequences depending on contexts. In this chapter, acknowledging both positive and negative psychological effects of social networks, I argue that in-degree centrality positions of both leaders and team members in intra-team networks can affect the likelihood of leader abuse at two different levels—team level abusive supervision and individual level abusive supervision—via social benefit and social cost mechanisms.

Figure 3 is an illustration of the multi-level model of leader and team member centrality and abusive supervision. At the leader level, I argue that a leaders’ central position in intra-team networks decrease team-level abusive supervision (i.e., leader abuse targeted at the all team members) because leaders believe that they are trusted by team members; however, simultaneously, central position of leaders may increase team-level abusive supervision because managing social networks is exhausting. At the member level, I argue that a team member’s central position in intra-team social networks decreases individual-level abusive supervision (i.e., leader abuse targeted at the
individual team member) because the central member has utility to leaders. However, I also argue that the central position of a team member may increase the individual level abusive supervision because the central member can be perceived as a threat to leaders. Finally, I maintain interactive effects by hypothesizing that leader centrality moderates the mediated relationships in the member centrality model.

![Figure 3. Multi-level model of leader centrality and team member centrality - abusive supervision](image)

**Social Benefits of Leaders’ Central Position in Intra-Team Networks**

This section is social benefit argument of leader centrality. In this section, I argue that when leaders are at the center of intra-team social networks, the leaders are less likely to show hostility towards their subordinates because leaders believe that they are trusted by their subordinates. Drawing on literature of trust and opinion leadership, I
maintain that when leaders are at the center of intra-team networks, they infer that they are trusted by team members, which could lead to more or less leader hostility.

**Leader Centrality and Leaders’ Belief that They Are Trusted**

While trust research has focused mainly on ‘trusting’ (i.e., how individuals develop trust for others), there is growing evidence that the experience of being trusted by others is also important for various outcomes. Previous studies found that employees’ belief that they are trusted by their supervisors explains incremental variance in organization outcomes (e.g. performance, turnover) beyond the effects of trust in their supervisors (Baer et al., 2015; Deng & Wang, 2009; Lau, Lam, & Wen, 2014; Lau, Liu, & Fu, 2007; Salamon & Robinson, 2008).

Leaders’ social networks influence their belief that they are trusted because leaders infer whether they are trusted or not based on their position in the intra-team networks. Centrally positioned individuals in advice networks are asked more often for task-related advice by many of their team members than less centrally positioned individuals are asked. Hence, central leaders become opinion leaders, who have influence over others’ thoughts and behaviors (Oh et al., 2006). Theories and research on the notion of opinion leadership suggest that opinion leaders are socially active and located at the center of social networks (Burt, 1999; Venkatraman, 1989). People ask for advice from individuals who are capable and benevolent and show integrity, which are defining features of trustworthiness (Katz, 1957; Katz & Lazarsfeld, 1955). Thus, being central in intra-team advice networks and after observing the pattern of social relationships, central
leaders may believe that they are trusted by team members because they consider themselves as opinion leaders.

Furthermore, central leaders in intra-team friendship networks may also believe that they are trusted. Friendship is characterized by mutual disclosure, which occurs only when leaders make themselves vulnerable to others. Trust is a psychological state comprising the intention to accept vulnerability based upon positive expectations about the intentions or behavior of another (Rousseau, Sitkin, Burt, & Camerer, 1998). Hence, their experiences of interacting with many team members as friends engender leaders’ belief that they are trusted by their team members.

Conversely, leaders at the peripheral position of advice and friendship networks are not much asked for task-related advice or friendship by their team members. Observing team members rarely approaching them for informal interaction, the peripheral leaders may reason that team members do not consider them to be competent, benevolent, or have integrity. That is, based on observation of their social interaction with team members, peripheral leaders may believe that they are not trusted by their followers. Hence, I predict the following:

*Hypothesis 1. Leader in-degree centrality in intra-team (a)advice/(b)friendship networks is positively associated with leaders’ belief that they are trusted by team members.*

**Leaders’ Belief that They Are Trusted and Team-level Abusive Supervision**

Leaders’ belief that they are trusted decreases leader hostility to their team members. First, social exchange theory suggests that when individuals receive social
rewards (e.g. help from others, emotional support), they tend to return positive social rewards (Gouldner, 1960). When leaders believe that they are trusted by their team members, they tend to reciprocate that trusting belief by trusting their team members in return (Ferrin et al., 2008) or by engaging in cooperative behaviors rather than hostile behaviors (Ferrin et al., 2007; Ferrin et al., 2008). For example, team members’ trust in their leaders has been shown to be positively associated with the leader’s reciprocation of care and concern toward those team members (Dirks & Ferrin, 2002). Individuals who feel trusted, and therefore feel competent, are more likely to show citizenship behaviors than those feeling less trusted (Lau et al., 2014).

In addition, leaders who believe that they are trusted by team members behave in a way that meets team members’ expectations that leaders will be competent, warm, and seeking team members’ best interests. State expectation theory suggests that people follow others’ expectations in a self-fulfilling manner (Correll & Ridgeway, 2003). When pursuing collective goals, a behavioral expectation is formed based on each member’s status characteristics (e.g., socially significant characteristics, social rewards, behavioral interchange pattern). That is, people with high status characteristics are expected to perform better or behave in a non-deviant manner because they want to fulfill those expectations. Leaders who believe that they are trusted tend to fulfill the team members’ expectation that their leaders are trustworthy. Leaders may provide more advice or emotional support to team members or try to be benevolent by engaging in less hostile behaviors. On the contrary, leaders feeling less trusted are more likely to show hostile behaviors because they do not have a positive expectation to fulfill. Leaders, by the
nature of formal authority, have power based on resource, reward, and punishment.
Power can make people less concerned with others and more self-interested (Tost, Gino, & Larrick, 2012), and leaders may get easily frustrated or annoyed by day-to-day operations, which may lead to impulsive hostile behaviors. Leaders’ belief that they are trusted by team members can buffer that frustration and decrease leader abuse because once a trust expectation is formed and leaders recognize it, they are more likely to follow the expectation.

Furthermore, leaders who feel trusted have a reputation concern that may prevent them from displaying hostile behaviors (Baer et al., 2015). Leaders feeling more trusted by their subordinates may feel more responsible for their subordinates than those feeling less trusted, and therefore act toward their subordinates in a positive and nurturing way (Salamon & Robinson, 2008). Taken together, leaders who feel highly trusted by their members are more likely to behave toward their team members in a more pro-social and less anti-social manner than less trusted leaders. Thus, formally I propose:

_Hypothesis 2. Leaders belief that they are trusted is negatively associated with team-level abusive supervision._

I argued that leaders’ central position is positively associated with leaders’ belief that they are trusted by their team members, and I subsequently argue that leaders’ belief that they are trusted decreases leader hostility toward their team members. Integrating these arguments, I further propose a mediation hypothesis:
Hypothesis 3. Leader in-degree centrality in (a)advice / (b)friendship networks has a negative indirect effect on team-level abusive supervision via leaders’ belief that they are trusted.

Social Costs of Leaders’ Central Position in Intra-Team Networks

In preceding hypotheses, I suggested a social benefit perspective by arguing that leaders who occupy a central position in intra-team networks display less abusive behaviors towards team members due to the leaders’ belief that they are trusted by their team. However, social networks carry both benefits and costs (Adler & Kwon, 2002). Social network research suggests that network ties can decay without the investment of time and energy (Burt, 2000; Wellman & Wortley, 1990). Hence, while being at the center of intra-team networks can provide feelings of trust to the central leaders, leaders may need to invest time and energy in order to maintain social relationships and the access to social capital (e.g. information, trust) connected to those relationships. Thus, in this section, I present social cost perspective of leader centrality. Specifically, leader in-degree centrality increases leader hostility because the time and energy spent to maintain social relationships fail to regulate leader hostility.

Leader Centrality and Ego-Depletion

Self-regulation is the psychological process by which impulsive and counter-normative behaviors are controlled (Baumeister, Vohs, & Tice, 2007). People have a pool of self-regulatory energy resources that is limited and can be depleted. Ego-depletion refers to self-regulatory energy running low or being extinguished. According to ego-depletion theory, performing tasks or behaviors that require self-regulatory energy
subsequently leads to ego depletion. Examples of such tasks and behaviors include complex decision making, impression management, making many choices, and dealing with demanding partners (Baumeister et al., 2007). Recent evidence of ego depletion theory suggests that various factors can affect leader ego depletion, which subsequently leads to decreased positive outcomes and increased negative consequences. For instance, Johnson et al. (2014) found that leaders who engaging in daily procedural justice behaviors experience increased daily ego depletion because exhibiting behaviors that concern procedural justice requires leaders to abide by rules and norms and to apply fair processes across various situations (Johnson, Lanaj, & Barnes, 2014). In addition, leaders’ ethical behaviors, which are supposed to increase team effectiveness, in fact had detrimental effects on their energy level, resulting in daily abusive behaviors (Lin et al., 2016). The quantity and quality of leaders’ sleep could also be an important factor that increases ego depletion. It has been found that leaders who have not slept well were less likely to have self-regulatory resources, which increased daily abusive behaviors of leaders (Barnes et al., 2015).

Evidence suggests that social networks could be another factor that increase or decrease ego-depletion. For example, egos who have dense social networks are forced to allocate more time and energy on maintaining current ties, reducing freedom to create new ties in other social networks and benefit from the resulting knowledge exchange. Supporting this reasoning, it was shown that an ego’s network density—defined as the proportion of actual social ties among all possible ties with organizational members—could decrease the performance of the ego when the ego is a provider of knowledge.
because of the large amount of time and energy invested in embedded relationships (Gargiulo et al., 2009). Absorbing and processing abundant information as advice/information receivers also could consume cognitive energy, which leads to ego-depletion (Oldroyd & Morris, 2012). Providing social support to colleagues can be taxing, resulting in increased anxiety, irritation, a depressive mood, and physical illness, which are closely related to low self-regulatory resources (Yang et al., 2014). Hence, friendship or advice networks can be burdens to the helper in those networks because responding to those requests can deplete the helper’s resources. Yang et al. (2014) found that social burden, defined as an implied or explicit request for instrumental support, was positively associated with psychological distress. Initial tie formation also could be emotionally exhausted because individuals strategically search for people who are professionally helpful for themselves and put forth effort to be connected to those people (Casciaro, Gino, & Kouchaki, 2014).

Likewise, leader in-degree centrality in intra-team social networks could affect a leader’s self-regulatory energy level. Leaders who are at the center of intra-team social networks frequently exchange information and social support informally and voluntarily in addition to required interactions. For example, friendship ties are formed based on frequent and intense interaction (Krackhardt & Kilduff, 1990), but maintaining friendship ties would take time even in the absence of immediate instrumental utility (Ingram & Zou, 2008). Furthermore, exchanges between friends at work may include non-work topics, which may require leaders to expend more energy to return both themselves and their ties to their tasks (LePine et al., 2012). Advice exchange ties also require time and
energy investment because in order to provide appropriate advice, employees consume cognitive energy to process information and find appropriate resources. To exchange information or advice with their team members, leaders at the center of intra-team social networks would need to make many choices regarding what resources they allocate to which team members and how much information they need to share. These discretionary behaviors in informal social networks could lead to ego-depletion (Trougakos, Beal, Cheng, Hideg, & Zweig, 2015) and cognitive overload (Oldroyd & Morris, 2012), which may drain their self-regulatory energy. Conflicts, even in positive and close relationships, can arise, which may engender frustration and annoyance, two bases of ego-depletion (Simmel, 1950). On the other side, leaders at peripheral positions have few social connections to maintain; subsequently, peripheral leaders have fewer choices to make regarding information exchange, and their decision making would be less complex. Thus, leaders at the peripheral positions will eventually preserve more mental energies than those at the center of intra-team networks. Thus, I predict

_Hypothesis 4._ Leader in-degree centrality in intra-team (a)advice/(b)friendship social networks is positively associated with leader ego-depletion.

**Ego-Depletion and Team-Level Abusive Supervision**

When self-regulatory energy is running low, individuals’ self-control abilities are likely impaired. Thus, individuals with high ego-depletion are more likely to show socially undesirable behaviors. Evidence from lab studies suggests that high ego depletion leads to socially undesirable behaviors including excessive prejudicial discrimination, cheating (Gino, Schweitzer, Mead, & Ariely, 2011), decreased trust for
others (Ainsworth, Baumeister, Ariely, & Vohs, 2014) and violence (Stucke & Baumeister, 2006). In organizations, it has been shown that ego-depletion promotes leaders’ unethical behaviors (Joosten, van Dijke, Van Hiel, & De Cremer, 2013) and increases employees’ deviant behaviors (Christian & Ellis, 2011). Based on this evidence, I suggest that leaders’ ego-depletion can facilitate their abusive behaviors for two reasons.

First of all, leaders with high ego-depletion may have difficulty controlling their behaviors, especially anti-social behaviors that require self-regulatory resources. The aggressive behaviors of leaders stem from self-oriented instrumental motivation or inability to control their temper or negative emotion (Bushman & Anderson, 2001). Having power has been associated with hostility and derogation (Kipnis, 1969), and managerial leaders have formal power over subordinates; thus, managerial leaders are more likely to be abusive than members without managerial positions and power. Executive functions and social norms are forces that prevent leaders from being abusive. That is, leader hostility is constrained to the extent that individuals have mental energy to abide by social norms. As self-regulatory energy is used for various supervising roles, such as decision making, making choices, and high workload (Gino et al., 2011; Joosten et al., 2013), leaders are less likely to have self-regulatory energy to control their aggressive behaviors. Thus, when leaders’ self-regulatory energy is depleted, leaders may show hostile behaviors because they do not have sufficient mental energy to regulate the hostile behaviors.
Second reason for the link between leaders’ ego-depletion and team-level abusive supervision is that the ego depletion of leaders could lead to abusive supervision because depleted leaders feel less guilty about deviant behaviors and feel less responsible for their team members (Gino et al., 2011). Depleted leaders have low moral awareness. Gino et al. found that people who completed tasks requiring self-regulatory energy were less likely to identify cheating or dishonest behaviors as being immoral than those who did not have any of those tasks. Furthermore, depleted individuals are less likely to be concerned with the well-being of others (Balliet & Joireman, 2010). Hence, if depleted leaders find their hostile behaviors toward team members morally acceptable and the well-being of their team members unimportant, then they will continue to act with hostility.

Taken together, the evidence above suggests that leaders in high ego-depletion tend to be abusive. Small conflicts, such as disagreements on non-critical issues, may occur easily, which in turn provoke depleted leaders’ aggressive behavior. Empirical evidence supports the link between ego-depletion and aggression. In a series of lab studies, DeWall, Baumeister, Stillman, & Galliot (2007) found that ego-depletion leads to more aggression and that the trend was stronger for those with low trait self-control (DeWall, Baumeister, Stillman, & Gailliot, 2007). In addition, it has been shown that leaders lacking adequate sleep experience ego depletion that results in hostile behaviors to their team members (Barnes et al., 2015). Relatedly, depleted leaders tend to engage in more unethical behaviors such as cheating, which also can be considered as leader abuse. Thus, I hypothesize the following:
Hypothesis 5: Leaders’ ego-depletion is positively associated with team-level abusive supervision.

In previous discussion, I maintained that leaders’ central position in intra-team social networks can drain leaders’ self-regulatory energy, resulting in an increase in leader hostility toward team members. Integrating the effects of leader centrality and ego-depletion on team-level abusive supervision, I further propose a mediation hypothesis:

Hypothesis 6: Leader in-degree centrality in (a)advice/(b)friendship networks has a positive indirect effect on team-level abusive supervision via leaders’ ego-depletion.

A Team Member Centrality and Individual-Level Abusive Supervision Model: Who Becomes a Target of Abusive Supervision?

Building on the literature that examines factors that facilitate or constrain leader hostility, I discussed why leaders’ positions in intra-team social networks influence their display of hostility towards their team members. Preceding hypotheses about leader centrality attempt to answer the research question of why some leaders are abusive to their subordinates at the team level. However, evidence suggests that abusive leaders strategically select a specific target among their subordinates (Tepper et al., 2012). For instance, it has been shown that abusive leaders target subordinates who are dissimilar with them, do not perform well, or conduct deviant behaviors (Lian, Ferris, Morrison, & Brown, 2014; Tepper et al., 2011; Walter et al., 2015). In the following section, I contend that the position of a subordinate in intra-team social networks could be a factor that
increases or decreases leaders’ abusive behaviors directed at the specific subordinate. That is, the position of a team member in intra-team social networks could go through an opponent process where the central position of a team member could have both benefits and costs for the team member.

Invoking moral exclusion theory, I argue that a team member’s in-degree centrality in intra-team social networks has negative indirect effects on abusive supervision toward the specific team member because the leader perceives the team member as useful. However, the same in-degree centrality of the team member could have positive indirect effects on abusive supervision directed at the team member because sometimes the central member can be a threat to leader. Invoking identity theory, I thus argue that a team member’s in-degree centrality in intra-team social networks has positive indirect effects on abusive supervision toward the team member through identity threat. The level 1 part in figure 3 is an illustration of the team member centrality conceptual model.

**Social Benefits of a Team Member’s Central Position in Intra-Team Networks**

This section is social benefit argument of member centrality. A team member occupying a central position in intra-team networks could be perceived as providing utility to their leaders, which subsequently decreases leader hostility toward the subordinate.

**Team Member Centrality and Perceived Utility**

What utilities do team members provide to their leaders? How are social networks related to perceived utility of team members? In work teams, leaders and team members
depend on each other to accomplish the team’s goal and exchange various resources (Hackman, 1987; Wilson, Sin, & Conlon, 2010). Whereas team leaders provide their members with strategic information or monetary resources, team members provide different types of resources to their leaders. Specifically, team members provide *service* to leaders by putting effort into team tasks. Some members may spend more time than others generating ideas or collaborating with other team members to enhance team performance. In addition, whereas leaders provide their team members the strategic information obtained from upper management, team members provide leaders the *lateral information* that they get from their colleagues. Furthermore, team members provide *loyalty and commitment* to their leaders, which could grant political power for leaders to accomplish their goals (Oh et al., 2006) because committed team members are persistent and motivated to pursue team goals (Klein, Molloy, & Brinsfield, 2012). In sum, the utility that each team member provides to the leader varies depending on the individual’s characteristics, which influences leader behaviors and attitude toward each team member.

How do leaders recognize the utility that team members provide? Leaders may find the member utility by looking at social networks of team members. Social networks as prism perspective posits that a person’s social networks can be used as a basis for evaluating the reputation and status of the person (Podolny & Baron, 1997). As individuals have a cognitive social structure, or a mental map of who exchanges resources or who are friends of whom within their team, this cognitive social structure affects their overall evaluation of others. For instance, Mehra et al. found that leaders’ position in peer leader networks is positively associated with their reputation (Mehra,
Dixon, et al., 2006). A central position in organizational networks was shown to be an indicator of influence and popularity (Brass, 1984). Hence, leaders may evaluate the utility of each team member by looking at the positions of team members in intra-team networks.

Specifically, in-degree centrality of a team member will be positively associated with perceived utilities of the team member for several reasons. First, team members who are at the center of intra-team social networks can provide more informational benefit to their leaders than those at peripheral positions. Connected to various roles, central team members have an integrative view of workflow, and in turn have more ideas regarding process improvement than peripheral members (Venkataramani & Tangirala, 2010). Central team members share various resources and expertise with other team members, which could lead to team learning (Mesmer-Magnus & Dechurch, 2009).

Furthermore, central team members are perceived as having utility to leaders because of their service and effort in team tasks. Central subordinates actively interact and cooperate with other team members. Frequent interaction and cooperation could be a signal of conducting organizational citizenship behavior or putting in extra effort, which may increase team task performance and viability (Hackman, 2000). Moreover, by connecting team members with frequent interaction, central members in intra-team social networks can be perceived as saving leaders’ efforts to coordinate different functions or knowledge within teams. This enables leaders to focus on more important and constructive activities, such as setting strategic directions of the team.
Finally, from the leaders’ perspective, the central team members can be a good exemplar for other team members, which can help leaders to form positive norms within the team. Empirical evidence supports that central team members are viewed positively by others. For instance, because the central team members in an advice network are perceived to provide task-related expertise, leaders tend to develop high quality relationships with the central members (Goodwin, Bowler, & Whittington, 2009). Venkataramani and Dalal (2007) found that a central employee in positive affective networks is more likely to receive help from other employees.

On the periphery, team members do not have much informal interaction with other members, and as a result, are less likely to have access to information through informal social relationships (Adler & Kwon, 2002; Phelps, Heidl, & Wadhwa, 2012). In addition, team members at the peripheral positions of intra-team social networks could be perceived as not having intent to help others and being difficult to work with. Even if the peripheral team members have expertise, being perceived as inaccessible could interfere with the exchange of expertise with other team members (Casciaro & Lobo, 2008). Consequently, leaders may think that the team members at the peripheral positions lack commitment and do not care as much about team goals. Altogether, this evidence suggests that leaders would perceive central team members as having more utility than those at the peripheral positions in intra-team social networks. Thus, I predict as follows:

Hypothesis 7. A team member’s in-degree centrality in intra-team (a)advice/(b)friendship social networks is positively associated with the perceived utility of the team member to leaders.
Perceived Utility to Leaders and Individual-Level Abusive Supervision

The perceived utility of a team member decreases leader hostility directed at the team member. Moral exclusion theory has proven useful to explain the negative association between perceived utilities of the team member and leader hostility. Moral exclusion is the psychological process in which individuals identify or categorize other people outside of a moral community where moral values, rules, and the consideration of fairness apply (Opotow, 1990). According to moral exclusion theory, people have a scope of justice, which applies to only those who are within a moral boundary. Because the moral in-group is perceived to be more honest, moral, and virtuous than moral out-group, people have contrasting attitudes toward moral in-group and out-group members. Specifically, they believe that those in the moral in-group share trust and community resources with fair processes whereas moral out-group members do not have reciprocity because of low trust and unfair processes. Consequently, harming those morally excluded can be acceptable because those morally excluded are perceived as ‘undeserving and expendable’ (Opotow, 1990).

This moral exclusion has been shown to be facilitated or restrained by three factors: conflict, dissimilarity, and utility. In leader-team member relationships, leaders may put some of their team members outside of the moral boundary because those team members are perceived to be different from the leader, have conflicts, and have low utility for their goal attainment. For those excluded from the moral community, leaders may feel those team members undeserving of fair treatment, which may increase leader hostile behaviors directed at those team members. Based on moral exclusion literature,
Tepper et al. (2011) suggested that supervisors are more likely to abuse subordinates who are dissimilar from themselves partly because leaders perceive more relational conflicts with them. Furthermore, the likelihood that dissimilar subordinates receive leader abuse was stronger when the subordinate performance was lower.

The argument that team members with low perceived utility receive more abuse than those with high perceived utility is consistent with the perspective of instrumental leader abuse. The perspective of instrumental leader abuse suggests that supervisors display aggression for specific purposes such as managing impression, controlling their subordinates, and redressing the injustices of their subordinates (Tepper et al., 2012). Specifically, team members providing low utilities to their leaders may hinder leaders’ performance and reputation. Thus, leaders may want to control or push them to perform better or provide contribution to attaining the leaders’ or team’s goal by showing aggression. Based on this reasoning, Walter et al. (2015) found that low performing subordinates are more likely to receive leader abuse than high performing ones. The relationship between subordinate performance and leader abuse was stronger when leaders’ outcomes highly depend on the subordinate performance. This indicates that team members’ utility proposition could be important for leaders to achieve their goals. When their goal attainment is hindered because of the low utility of a team member, leaders may display hostility to the team member. Thus, I formally hypothesize the following:

**Hypothesis 8.** Perceived utility of a team member is negatively associated with individual-level abusive supervision.
In previous discussion, I argued that a team member’s central position will be perceived as having utility to their leaders, and that consequently leaders are less likely to abuse the central member than peripheral member. Integrating the effects of a team member’s centrality and utility on individual level abusive supervision, I further propose a mediation hypothesis:

**Hypothesis 9.** A team member’s in-degree centrality in intra-team (a)advice/(b)friendship networks has a negative indirect effect on individual-level abusive supervision via perceived utility of the team member to leader.

**Social Costs of a Team Member’s Central Position in Intra-Team Networks**

In preceding section, I maintain that a member centrality reduces leader abuse directed at the central member by suggesting benefit of member’s central position. However, in this section, I present social cost perspective of member centrality by arguing that the same central position of a team member increases leader abuse directed at the central member, and thereby introduce social cost perspective of a member’s centrality. While central team members provide various values and benefits to team leader, it is possible that the same central team members are perceived as a potential harm to the leader because the central team member threatens the leader’s identity.

**Leader Identity Construction**

Identity is “a set of meanings applied to the self in a social role or situation that defines what it means to be who one is” (Burke & Tully, 1977). Likewise, a leader identity refers to the sub-component of one’s identity that relates to being a leader or how one thinks of oneself as a leader (Day & Harrison, 2007).
Leaders develop their leader identity through two different processes. Leaders may develop leader identity based on their role as a formal leader (Stryker & Burke, 2000). For example, when an individual is appointed as a leader, he or she is expected to create a vision, motivate team members, develop a strategy, and assign various tasks to team members (Morgeson et al., 2009). Over the course of performing tasks as a leader, the one occupying a formal supervisory position comes to internalize leader identity (Stets & Burke, 2000).

Leader identity can also be constructed through social interaction (D. S. DeRue, Ashford, & Cotton, 2009). The social construction process of identity consists of the actions of claiming and granting leader identity. An individual can claim leader identity, for instance, by directly stating that he or she is a leader or by sitting in the head chair. People surrounding the individual decide whether to grant leader identity (i.e., actions that a person takes to bestow a leader identity onto another person) by, for example, letting a focal person lead discussion or giving authority to assign tasks to team members. Recurring actions of claiming and granting leader identity among team members give rise to one’s internalization of leader identity (D. Scott DeRue & Ashford, 2010).

The social construction perspective of leader identity suggests that in teams both with and without formal leaders, informal leaders can emerge based on the set of social relationships (i.e., social networks). That is, although individuals occupying a formal supervisory position internalize leader identity based on their role of a leader, others who are not in a formal supervisory position can also have a leader identity based on social interaction. Indeed, DeRue and Ashford (2010) maintain that team members grant leader
identity to the individuals with a formal supervisory position only to the extent that the individual is effective or acts in ways that are consistent with individuals’ implicit theories of leadership. Thus, acknowledging that the two different identity construction processes co-exist in a team, there could be disagreement between a formal leader and an informal leader.

A Team Member’s Centrality and Identity Threat to the Leader

Leader identity, which is constructed based on the leader role or on social relationships, can be threatened by certain experiences. Identity threat refers to experiences identified as potentially harmful to the value, meanings, or enactment of an identity (Petriglieri, 2011). When recognizing threat, people appraise the threat first by its significance for their well-being and recurrence of the threat (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Identity threat can originate from certain traumatic events regarding individuals’ roles or interpersonal interactions. For example, leader identity can be threatened when individuals are laid off and lose a formal supervisory position. In other occasions, leader identity may be threatened when team members resist leaders’ commands and depend less on leaders’ advice or resources and more on other team members’.

I argue that a team member who is at the center of intra-team social networks can be a threat to their leader identity in two main ways. First, a central team member can make leaders feel that they are inferior to the central member because leaders may have relatively little influence and be less capable of leading their teams. Because central team members are at the hub of workflow and, in turn, have access to information and an
integrative view of work processes, other team members depend on the central members (Venkataramani & Tangirala, 2010). This dependence may yield influence to the central members (Emerson, 1962). Because of the perception of influence over work processes, team members often consider the person with high centrality as an informal leader (D. Scott DeRue et al., 2015; Freeman, 1978). Thus, when a team member is at the center of intra-team networks, the leader will have a relatively low social status and influence.

Decreased influence and relatively low status can be a threat to leader identity because team members are less likely to grant leader identity to the formally appointed leader, and a leader’s low influence could lead to the ineffective implementation of leader roles.

Similarly, high performers and employees with high cognitive ability were shown to be targets of negative comparison as a result of being a perceived threat to other employees. Specifically, employees with high cognitive ability make their coworkers feel less valuable and inferior (Kim & Glomb, 2010). High performers are sometimes viewed negatively by their colleagues for the same reason (Kim & Glomb, 2014). Evidence suggests that even leaders in higher formal positions feel envious toward subordinates in lower positions if the object of the envy is important to leaders (e.g. expertise, cognitive ability) (Lingtao, 2014). The negative social comparison and envious feeling could be the source of ego threat and threat to self-esteem. Thus, leaders may feel identity threat in the presence of central team members because central members could make leaders look less capable and inferior to the central team member. Central members are often perceived as more central than they actually are by others (Kilduff, Crossland, Tsai, & Krackhardt, 2008). Thus, from leaders’ perspective, identity threat could be stronger than it really is.
Second, as in-degree centrality of the subordinate increases, the central team member may behave in a provocative way, threatening leader identity. A central member is more likely to speak up and suggest how to improve team processes because they feel they are influential and understand workflow well (Venkataramani & Tangirala, 2010). However, this voice behavior is not always considered as pro-social by leaders. Subordinates’ voice behaviors that dissent with the leaders’ thought could be perceived as conflicts (Burris, 2012). Frequent conflicts of the central members with their team leaders may raise questions about leaders’ effectiveness and capability to lead team members, which is the core of leader identity.

On the contrary, peripheral members do not have influence and status to make leaders feel inferior. In addition, the peripheral members are less likely to speak up and have conflicts because they feel less influential in their teams (Venkataramani & Tangirala, 2010). Thus, leaders can be hurt and threatened more by central members than peripheral members as a result of central members’ extensive social networks and their increased influence derived from the networks. Hence, I predict the following:

**Hypothesis 10.** A team member’s in-degree centrality in intra-team (a)advice/(b)friendship social networks is positively associated with leaders’ identity threat.

**Identity Threat and Individual-Level Abusive Supervision**

Once leaders feel identity threat because of a highly central team member, they may react in a way to resolve the discrepancy between internalized leader identity based on their role and the leader identity based on social environment. When recognizing an
identity threat, people engage in coping behaviors (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). In coping with a perceived identity threat, people either restructure or protect their identity. That is, people, on one hand, psychologically undermine what a certain identity means to them or put more weight on other identities that are not threatened (i.e., identity restructuring) (Mussweiler, Gabriel, & Bodenhausen, 2000). On the other hand, people may protect the threatened identity by finding supports or stronger basis for the identity (i.e., identity protection). This happens especially when the threatened identity is difficult to forsake (Ethier & Deaux, 1994). Whereas identity restructuring response targets threat itself, identity protection response targets the source of identity threat (Petriglieri, 2011). As individuals are strongly motivated to maintain and enact their identities in order to achieve consistency and maintain high self-worth (Shamir, 1991), default response to identity threat is identity protection (Petriglieri, 2011). People occupying a supervisory position are more likely to protect their leader identity because it is difficult for them to abandon a formal supervisory position, and they have position-based resources and power to protect their identity (Petriglieri, 2011).

I argue that the more a leader feels his or her leader identity is threatened by a specific team member, the more the leader will display hostile behaviors to the team member. First reason for this argument is that when people are misidentified with their identity, they feel stressed and negative emotion (Meister, Jehn, & Thatcher, 2014). In order to resolve the state of negative affect, they may display hostility to the source of stress (Hoobler & Hu, 2013; Mawritz et al., 2014; Wu, Hu, & Yang, 2013). In addition, the stresses and negative emotions themselves could lead to impulsive aggression of the
leader toward the central team member. For instance, previous studies suggest that leaders could feel envy towards their subordinates, which increases leader hostility towards the target subordinate of envious feeling (Kim & Glomb, 2014). Second reason is that when feeling identity threat from central team members, leaders may want to discredit the central member by derogating and belittling the central member in front of other members because they believe that those acts decrease the validity of the central member (Petriglieri, 2011). Lastly, leaders may abuse the central members to obtain control over them (Tepper et al., 2012). One of the reasons why the central team members become threats to leader identity is the leader’s relatively low influence and status in their teams compared to the central member. Leaders may think they can make the central members obedient to them by showing aggression, and in so doing restore their leader identity.

Taken together, the evidence above suggests that leaders with formal power are more likely to show aggression toward central team members when their identity is threatened because they feel negative emotion, they want to discredit the central member, or they want to control the central member. Thus, I hypothesize the following:

*Hypothesis 11. Leader identity threat is positively associated with individual-level abusive supervision.*

In previous discussion, I maintained that a team member’s central position in intra-team networks increased leader identity threat and that increased identity threat leads to abusive supervision targeted specifically at the central member. Integrating the
effects of a team member’s centrality and leader identity threat on individual-level abusive supervision, I further propose a mediation hypothesis:

Hypothesis 12. A team member’s centrality in intra-team (a)advice/(b)friendship networks has a positive indirect effect on individual-level abusive supervision via leaders’ identity threat.

Moderating Effects of Leader Centrality

In Hypothesis 9, I argue that a team member’s in-degree centrality is positively associated with the perceived utility of the team member to leader, which in turn decreases abusive supervision directed at the team member. Here, I qualify that argument by proposing that some leaders are less likely to perceive central members as useful to them and in turn influence their abusive behaviors directed at the member. Specifically, I maintain that central members are less likely to be considered as having utility to leaders when the leaders are at the center.

Leaders perceive more utility from team members when team members provide new information, cooperate with other team members, and create positive norms in teams (Wilson et al., 2010). Central leaders are connected to team members informally and thus have access to information and prestige within their teams. Thus, the information benefit of central members would be perceived as smaller when leaders occupy a central position in intra-team networks than when leaders are at the peripheral positions. Furthermore, by actively contacting other team members, central leaders create positive norm within the team and constantly coordinate team members’ different roles. Hence, central members’ utility of coordinating other team members would be less of value to central leaders.
because the central leaders derive that kind of utility from their own activities. However, peripheral leaders may find social networks of team members useful to them. Because peripheral leaders do not have access to informal information or exercise significant influence over others within their team, the magnitude that centrality increased perceived utility would be larger when leaders are in a peripheral position in intra-team networks than when they are at the center of intra-team networks. For example, when leaders themselves do not share information, such activities from team members (i.e., centrality of team members) would contribute more to leader reputation and effectiveness than when leaders frequently involve in workflow.

These arguments imply that the mediated effect of H9 varies over how much central a leader stands in intra-team social networks. The positive relationship between centrality of a team member and perceived utility of the team member is weaker when leaders are close to the center of intra-team networks than they are to peripheral position

*Hypothesis 13a. The negative indirect effects of member advice centrality via perceived utility are weaker when leader in-degree centrality in advice networks is high.*

*Hypothesis 13b. The negative indirect effects of member friendship centrality via perceived utility are weaker when leader in-degree centrality in friendship networks is high.*

In Hypothesis 12, I argue that a team member’s in-degree centrality is positively associated with leader identity threat, which in turn increases abusive supervision directed at the team member. Here, again, I qualify this argument by proposing that some
leaders are more or less likely to perceive central members as threatening leader’s identity, and in turn influence their abusive behaviors. Specifically, I argue that central leaders find a central team member less threatening than leaders at the peripheral positions do.

Central leaders have status and influence over team members and enough resources to deal with difficult situations. Having enough status and influence, they are satisfied with their relationships and, in turn, less likely to compare themselves to others. People feel identity threat especially when they do not have resources to cope with the threat (Folkman et al., 1986). Social networks provide material resources, respect, and emotional support. Depending on the position in intra-team networks, a leader’s resources to cope with the threat varies. Leaders at the center of intra-team networks have more psychological resources, thus during the first appraisal process (i.e., assess how much resources they have to cope with stress or threat) central leaders are less likely to assess the presence of central members as threat. By contrast, peripheral leaders are easily threatened by even small fearful events. Not having enough psychological resources, they may feel more negative emotions and become defensive. Furthermore, peripheral leaders may be paranoid by others’ negative intention to hurt them. This will make peripheral leaders more fragile to any negative events. Overall, the peripheral leaders could evaluate situations more negatively. Thus, the threat caused by central member would be exaggerated when leaders are at the peripheral position.

These arguments imply that the mediated effect of Hypothesis 12 varies over how much central a leader stands in intra-team social networks. The positive relationship
between centrality of a team member and leaders’ identity threat is weaker when leaders are close to the center of intra-team networks than they are to peripheral position.

Hypothesis 14a. The positive indirect effects of member advice centrality via identity threat are weaker when leader in-degree advice centrality is high.

Hypothesis 14b. The positive indirect effects of friendship centrality via identity threat are weaker when leader in-degree friendship centrality is high.
CHAPTER 4

METHOD

Sample

This study was conducted with Research Match panel, a pool of volunteers who reside in the U.S and are willing to participate in research studies. Research Match panel reflects national populations of the U.S. spreading across all the states and being diverse in age, gender, and ethnicity. This sample has several advantages for this dissertation. Hypotheses proposed in the dissertation examine how informal social relationships within teams affect hostile behaviors of leaders who hold formal supervisory positions. These hypotheses can be well tested in the organization in which clear hierarchy exists (e.g. organizations with formal job ranks and supervisory positions) and informal relationships frequently emerge within teams. Target leaders of surveys work in various organizations and industries with multiple subordinates who directly report to them. Thus, the target leaders work within a formal hierarchy and are suitable to test whether social environment with clear organizational ranks influences leader behaviors across different industries.

Power analysis was conducted in order to calculate appropriate sample size. Power analysis involves estimated power, the degree of freedom in the conceptual model that needs most power, and an expected effect size of independent variables on dependent
variable (or correlation between the two variables) (Murphy, 2002). Central positions in social networks, a key independent variable in my dissertation, have shown moderate effects on psychological states and behaviors of the person occupying the central position (e.g. correlation of centrality with voice behavior = .28, influence = .34, social satisfaction = .20) (Venkataramani & Dalal, 2007; Venkataramani et al., 2013; Venkataramani & Tangirala, 2010). Prior studies on abusive supervision also showed moderate effect size of various predictors on abusive supervision (e.g. correlation of abusive supervision with deep level dissimilarity = .29, conflict = .37, performance = -.39) (Tepper et al., 2011).

Among conceptual models in the dissertation, the degree of freedom in the model that needs highest power is 9 (i.e. member level conceptual model; one independent variable, one dependent variable, two mediators, approximately six control variables). By using the information above, sample size was calculated to achieve power level of 0.8, resulting in appropriate sample size of 152. Specifically, I need at least 152 responses from leaders and members to find expected effects of centrality on leader at the p<.05 level. Final sample size was 289 leaders who completed all three surveys about themselves and a team member that they work with. Thus, sample size was large enough to detect effects of social networks on leader behaviors.

**Procedure**

Table 1 shows the structure and items of the surveys (e.g. what were measured from whom and when). Surveys were distributed at three different time points. All communication was through email and internet. The three surveys capture leaders’ social
networks and their psychological states and attitudes toward a selected team member, and their self-report abusive supervision at both team and individual levels.

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Leaders</td>
<td>Team Leaders</td>
<td>Team Leaders</td>
</tr>
<tr>
<td>• Perceived network position of themselves and a selected team member</td>
<td>• Belief that they are trusted</td>
<td>• Abusive supervision at team level</td>
</tr>
<tr>
<td>• Negative affectivity</td>
<td>• Ego-depletion</td>
<td>• Abusive supervision at a selected team member</td>
</tr>
<tr>
<td>• Demographic questions</td>
<td>• Perceived utility of a selected team member</td>
<td></td>
</tr>
<tr>
<td>• Identity threat for a selected team member</td>
<td>• Identity threat for a selected team member</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Abusive supervision at a selected team member</td>
</tr>
</tbody>
</table>

Table 2. Structure and items of longitudinal survey for team leaders

Using an IRB approved protocol, I first sent a recruiting message to volunteers, who are over 18 years old, work at profit-organizations, and manage 2 or more subordinates. Those who showed intention to participate in this dissertation study were sent an invitation email that contains a link to the first survey. In the first survey, supervisors were asked to list initials of their two subordinates (i.e. the first and the last subordinates when listing all subordinates in the order of their last names), and one of the two subordinates was randomly selected by on-line survey system (i.e. Qualtrics) for subsequent questions throughout all three surveys. Those who participated and completed all survey items in the first survey were invited to the second survey. And finally those who participated in both surveys were invited to the third and the last survey. There was a
two-week interval between surveys (e.g. two weeks between the first and the second survey), and a reminder email was sent approximately one week after each survey invitation was sent.

**Measures**

*Visualization of intra-team social networks:* Leader’s perception of intra-team network structure may differ from actual intra-team social networks. Leader’s perception of intra-team networks may be more critical for predicting leader behavior than actual social networks (Brands, 2013; Krackhardt, 1990). Thus, I measure leaders’ perception of network positions of their own and a selected team member. I provided visual scale of network centrality (Figure 4) and ask leaders to indicate the extent to which leaders think him/herself and a selected member are central in intra-team social networks (1: on the outside of the network, 2: somewhat on the outside of the network, 3: neither on the outside or at the center of the network, 4: somewhat at the center of the network, 5: at the center of the network) (Mehra et al., 2014).

Although it is desirable to use multiple items to measure a construct, the use of a single item to capture a pattern of social relationships is often acceptable in social network studies. This is mainly because asking same multiple questions about all coworkers could be fatigue for respondents, resulting in poor response rate (e.g., Marsden, 1990). Hence, a single item approach is frequently used in social network studies to examine patterns of various social relationships (Ballinger, Cross, & Holtom, 2016; Venkataramani et al., 2013; Venkataramani & Tangirala, 2010). The visualization measures of network centrality do not provide alpha reliability because this is a single
item like other network survey items. However, there were supports for the construct and predictive validity of this item as the visualization measures have shown expected effects on outcomes such as job performance and the number of leader nominations individuals received from others (Mehra et al., 2010; Soltis & Floyd, 2013).

1. Outside position

5. Central position

Figure 4. Network visualization scale

**Leaders’ belief that they are trusted:** Leaders’ belief that they are trusted was measured by using adapted version of ‘feeling trusted’ (Baer et al., 2015) on a scale ranging from 1, “strongly disagree,” to 5, “strongly agree”. The survey items are adapted because in this study leaders assess whether they are trusted by team members whereas in the studies of Baer et al. team members assess whether they are trusted by their leaders. Sample items include ‘My team members would tell me about mistakes they have made on the job, even if I could damage their reputation’, ‘My team members would share their opinion about sensitive issues with me even if their opinions were unpopular’, and ‘My
team members are afraid of what I might do to them at work’. Alpha reliability for this measure in current study was .71.

**Ego-depletion:** Ego depletion was measured using 5 items of self-control capacity measures (Johnson, Lanaj, & Barnes, 2014) on a scale ranging from 1, “very slightly or not at all,” to 5, “very much.”. Sample items are ‘I feel drained’, ‘It would take a lot of effort for me to concentrate on something’, ‘My mind feels unfocused’. Alpha reliability for this measure in current study was .89.

**Perceived utility of a team member:** I measured utility of a selected team member to his or her leader by using 4 items of Liden et al. (1993)’s perceived performance measure. Team members provide utility to leader by fulfilling their roles and responsibilities assigned by their leaders. Hence, these items were used as the measure of utility of an employee (Tepper et al., 2011). Sample items include ‘This team member is superior to other members that I’ve supervised before (1 = strongly disagree, 7 = strongly agree), ‘Overall to what extent do you feel this team member has been effectively fulfilling his or her roles and responsibilities? (1= not effectively at all, 7 = very effectively)’. Alpha reliability for this measure was .89.

**Identity Threat:** Identity threat was measured using 4 items of Day & Sin (2010)’s leader identity measures. Leader identity threat occurs when certain events or experience are appraised to have harm to the meaning of leader identity or to the implementation of the role as leaders (Day & Harrison, 2007; Petriglieri, 2011). Participants were asked to indicate the degree to which they perceive a selected team member to have leader identity on a scale ranging from 1, “strongly disagree,” to 5,
“strongly agree.” This measure captures how much leaders feel threatened by each team member in terms of their ability to lead. Sample items of leader identity include ‘The selected member prefers being seen by others as a leader.’, ‘I see the selected member as a leader.’ Alpha reliability for this measure in current study was .87.

**Abusive supervision at team level:** Following studies using self-report abusive supervision measure, abusive supervision at the team level was measured using Johnson et al. (2012) 4-item scale. Participants reported how often they use the behaviors described in each item to their team members on a five-point scale (1 = I cannot remember ever using this behavior with my team members, to 5 = I use this behavior very often with my team members). Sample items include “start arguments with team members” and “Yell at or swear at team members”

Previous studies on abusive supervision typically measured abusive supervision from subordinates’ perspective. However, evidence suggests that mean and standard deviation of self-report abusive supervision were similar to those of subordinate-report abusive supervision, and that self-report abusive supervision is associated with constructs that are theoretically related (e.g. individual identity, follower performance) (e.g. Johnson et al., 2012). Alpha reliability for this measure in current study was .84.

**Abusive supervision at the individual level:** Abusive supervision at the individual level was measured also using Johnson et al.’s (2012) 4-item scale but with different referent: a selected team member. Supervisors reported how often they used the behaviors to a selected team member on a five-point scale (1 = I cannot remember ever using this behavior with him/her, to 5 = I uses this behavior very often with him/her).
Sample items include “start arguments with him/her” and “Yell at or swear at him/her.” Alpha reliability for this measure in current study was .87.

**Control variables:** Following prior studies examining predictors of leader abuse, several variables were controlled. For leader centrality model, leaders’ gender, race, and team tenure, leaders’ negative affectivity, and team size were controlled. Evidence suggests that males engage in more workplace aggression than females (Hershcovis et al., 2009), and younger supervisors in organizations are likely to engage in greater hostility (Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012). In addition, leaders’ negative affectivity has shown to increase their aggression in organizations (Mawritz et al., 2014). Negative affectivity was measured by using Watson, Clark, and Tellegen’s (1988) Positive and Negative Affect Schedule. Respondents reported the extent to which they typically experience such emotions as “distressed,” “anxious,” and “afraid.” The five-point response scale ranged from 1 = “you usually do not feel this way” to 5 = “you usually feel this way.” Alpha reliability of leader’s negative affectivity in current study was .70. Finally, team size was controlled because psychological experience of being at the center position in intra-team networks may differ depending on the team size (Venkataramani et al., 2013). For member centrality model, state negative affectivities of both members and their leaders were controlled because subordinates with high negative affectivity tend to perceive more abuse (Chan & McAllister, 2013; Tepper et al., 2006). Member’s negative affectivity was measured also by using Watson, Clark, and Tellegen’s (1988) Positive and Negative Affect Schedule. Leaders reported the extent to which they perceive a selected team member typically experience such emotions as “distressed,”
“anxious,” and “afraid.” The five-point response scale ranged from 1 = “the team member usually does not feel this way” to 5 = “the team member usually feels this way.” Alpha reliability of member’s negative affectivity in current study was .76. Members’ gender, race, education, and relational tenure with their leaders were controlled. Meta-analytic evidence suggests that employees’ gender are consistently related to workplace victimization (Bowling & Beehr, 2006). Furthermore, members’ relational tenure with their leaders may affect leader abuse because longer working relationships reduce the effects of demographic dissimilarity (Tepper et al., 2011; Walter et al., 2015). Team size was also controlled for the same reason in the leader centrality model.

**Analysis Strategy**

Data were collected at both leader and team member level. Team-level abusive supervision model (i.e. hypothesis 1–6) include leader level variables such as leader social network position (i.e. leader’s visualized centrality in intra-team social networks), leader’s psychological experience with collective team members (i.e. feeling trusted, ego-depletion), and abusive supervision at team level. Individual-level abusive supervision model (i.e. hypothesis 7–12) includes variables such as each team member’s network position (i.e. each member’s visualized centrality in intra-team networks), leader’s perception on each member (i.e. perceived utility, identity threat), and abusive supervision at the individual level. For testing all hypotheses, I used ordinary square regression (OLS) and PROCESS tool in SPSS with 5,000 bootstrapping samples (Hayes, 2013).
CHAPTER 5

RESULTS

The purpose of this chapter is to report the results of tests of the hypotheses generated in Chapter 3. Before reporting these primary results, results from preliminary data analysis are reported, including descriptive statistics, reliability checks, and correlations among study variables.

Preliminary analysis

I sent a recruiting message to 13,000 volunteers, noting that only those who have multiple subordinates reporting to them can participate in the survey. Among 855 qualified people whom accepted the invitation, 668 people responded to the first survey. Usable data for survey 1 was responses of 407 individuals after eliminating those who failed to answer the screening questions (e.g. do you have two or more subordinates that directly report to you?) and did not provide the initials of subordinates’ names. 339 participants provided usable responses for survey 2. Finally, 303 provided usable data for survey 3. Before testing the hypotheses, I matched responses across three time points, and eliminated respondents with missing data. The final sample size was 289 individuals who provided usable responses at all three waves of data collection.

Table 3 presents means, standard deviations, correlations, and scale reliabilities for the study variables. The mean organizational tenure was 5.35 years, and 76 % of the
final sample was female. The average number of team members whom they managed was 10.94. Industries in which participating leaders work included health (33%), education (21%), services (12%), government (11%), high-tech (7%), and retail/wholesaler (6%). Sixty-six percent of selected subordinates were women. The average length of the working relationship with referent subordinates was 3.5 years.

Leaders’ visualized centrality in advice networks was significantly and negatively associated with team-level abusive supervision ($r = -.13, p < .05$) whereas leaders’ centrality in friendship networks was not ($r = -.05, p > .05$). Likewise, members’ visualized centrality in advice networks was significantly and negatively associated with individual-level abusive supervision ($r = -.15, p < .01$) whereas members’ centrality in friendship networks was not ($r = -.05, p > .05$).

Finally, as a part of preliminary analysis, I examined whether there were significant differences between 289 leaders who completed all three surveys, and 128 leaders who answered some questions in one or two surveys and therefore were excluded from analysis. Comparison of the two groups suggest that the 289 leaders who completed all three surveys were higher in education and advice centrality than 128 who answered some questions. This indicates that central leaders in team’s advice networks or highly educated leaders are more willing to participate in all three surveys. However, there were no difference in gender, race, negative affectivity, leader friendship centrality and abusive supervision frequency. Thus, I concluded that overall there were no differences between those two groups.
| Variables                      | M   | SD  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   |
|-------------------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1. Leader gender              | 1.76| .43 | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2. Leader race                | 1.83| .37 | -.06 | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 3. Leader education           | 1.81| .39 | .08  | .08  | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4. Leader tenure              | 5.35| 6.25| -.05 | .05  | .04  | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5. Leader negative affectivity| 2.55| .40 | -.06 | .05  | .03  | .03  | (.70)|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6. Team size                  | 10.94| 31.98| -.13* | .01  | -.07 | .01  | .11  | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 7. Leader friend network centrality | 3.18| 1.22| .11  | -.06 | -.13* | .02  | .11  | .06  | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 8. Leader advice network centrality | 4.26| .96  | .09  | .07  | .01  | .05  | -.04 | .09  | .34** | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 9. Feeling trusted            | 3.86| .38  | -.04 | .02  | -.02 | .09  | .10  | .05  | .12*  | .18** | (.71)|      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10. Ego-depletion             | 2.38| .95  | .07  | .02  | .08  | -.13* | .20** | -.03 | -.01  | .01  | -.09 | (.89)|      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 11. Team AS                   | 1.13| .42  | -.18** | .07  | -.17** | .08  | .10  | -.02  | -.05  | -.13*  | -.02  | -.03  | (.84)|      |      |      |      |      |      |      |      |      |      |      |      |      |
| 12. Member gender             | 1.66| .47  | .19** | .09  | .13*  | .05  | -.07 | -.03  | .03  | .08  | .06  | 0    | -.15** | --   |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 13. Member race               | 1.72| .45  | -.04 | .26** | -.01  | .00  | .1   | -.02  | -.03  | .06  | .03  | .13*  | .08  | .81  | --   |      |      |      |      |      |      |      |      |      |      |      |      |
| 14. Member education          | 1.57| .50  | .09  | .06  | .40** | -.02 | -.05 | -.06  | -.03  | .09  | -.08 | .04  | -.12* | .99  | .11  | --   |      |      |      |      |      |      |      |      |      |      |      |
| 15. Member relational length  | 3.46| 3.73 | -.15** | .07  | .60**  | .17** | .08  | .02  | .01  | .10  | -.13* | .03  | .68  | .07  | .03  | --   |      |      |      |      |      |      |      |      |      |      |      |
| 16. Member negative affectivity | 2.48| .52  | -.06 | .04  | -.01  | .03  | .48** | .08  | .04  | .01  | .07  | -.02  | .09  | .17** | .11  | .02  | .11  | (.76)|      |      |      |      |      |      |      |      |
| 17. Member friend network centrality | 3.21| 1.16 | -.01 | -.05 | .00  | .01  | .06  | .21** | .12*  | .18** | -.03  | -.04  | .20  | -.01  | .01  | .08  | .13*  | --   |      |      |      |      |      |      |      |
| 18. Member advice network centrality | 3.07| 1.22 | -.04 | -.03 | .02  | .01  | -.04  | .07  | .12*  | .12*  | -.13* | -.10  | .92  | -.03  | .10  | .14*  | .17** | .39** | --   |      |      |      |      |      |      |
| 19. Member perceived utility  | 3.78| .88  | -.08 | .04  | .07  | -.05  | -.07  | .00  | -.03  | .12*  | -.17** | -.12*  | .64  | .01  | .10  | .13*  | .18** | .25**  | .39** | (.89)|      |      |      |      |      |      |
| 20. Identity threat           | 2.97| .96  | -.04 | .06  | .04  | .07  | -.01  | .00  | -.01  | .08  | .04  | -.19** | .01  | -.16** | -.01  | .08  | .11  | .12*  | .23**  | .44**  | .44** | (.87)|      |      |      |      |      |
| 21. Individual AS             | 1.13| .41  | -.12* | -.05 | .06  | .11  | .15** | -.02  | .00  | -.17** | -.07  | .04  | .73**  | -.12*  | .04  | -.09  | .12*  | .09  | -.03  | -.05  | -.15** | .02  | (.87)|      |      |      |      |      |

Note: N = 289; * p<.05; ** p<.01; *** p<.001. Alpha reliabilities appear in parentheses along the diagonal. Dummy coded: Gender, 1=male, 2=female; Education, 1=less than four year degree, 2=four year degree or more; Race, 1=Non-white, 2=White.

Table 3. Means, standard deviations, scale reliabilities, and correlations among leader-level study variables
_tests_of_hypotheses_

_leader-level_hypothesis_tests_

Hypotheses 1 through 6 predicted that leader centrality in intra-team social networks influences team-level abusive supervision through two psychological states: feeling trusted and ego-depletion. Specifically, Hypothesis 1 and 4 predicted that leader centrality in intra-team networks will by positively associated with leaders’ experience of feeling trusted and ego-depletion, respectively. Hypotheses 2 and 5 predicted that feeling trusted is negatively related to team-level abusive supervision and ego-depletion is positively related to team-level abusive supervision, respectively. Hypotheses 3 and 6 predicted that leaders’ centrality indirectly influences team-level abusive supervision through feeling trusted and ego-depletion, respectively. I used the SPSS PROCESS mediation module (Model 4) to test all hypotheses at the leader level. PROCESS model 4 (multiple mediator model) includes running two first-stage regressions separately (i.e. centrality → feeling trusted, centrality → ego-depletion), running the second-stage regression (i.e. centrality, feeling trusted, ego-depletion → team-level abusive supervision), and calculating two mediation effects using bootstrapping.

Table 4 presents results of leader-level hypothesis tests. Of the control variables only leaders’ negative affectivity and organizational tenure were significant predictors of feeling trusted, ego-depletion, and team-level abusive supervision. Following Becker’s (2005) recommendation to report results excluding control variables that are not significant, I eliminated leaders’ organizational tenure, gender, education, and team size from these analyses. I ran separate regression analyses for advice network centrality and for friendship network centrality (Mehra et al., 2001).
The first column in Table 4 shows regression results for leader centrality predicting feeling trusted. Leaders’ centrality in intra-team advice networks was positively related to leaders’ feeling trusted (β=.07, p <.01); leaders’ centrality in friendship networks was not related to feeling trusted (β=.02, p >.05). Thus, Hypothesis 1a was supported for the advice network but Hypothesis 1b was not for the friendship network. The third column in Table 3 shows regression results for feeling trusted predicting team-level abusive supervision. Feeling trusted was not related to team-level abusive supervision (β= -.02, p >.05). Hypothesis 2 was not supported.

For the test of feeling trusted as a mediator of the relationship between leader centrality and team-level abusive supervision (Hypothesis 3), the indirect effect was -.001 for the advice network and -.0003 for the friendship network. Because the 95% confidence intervals for both effects contained zero, I conclude that Hypothesis 3 was not supported.

The second column in Table 4 shows regression results for leader centrality predicting leaders’ ego-depletion. Neither leader centrality in advice networks nor leader centrality in friendship networks were related to leader ego-depletion (advice centrality: β = .05, p >.05, friendship centrality: β = -.03, p >.05). Hypothesis 4a and 4b were not supported. The third column in Table 4 shows regression results for ego-depletion predicting team-level abusive supervision. Ego-depletion was not related to team-level abusive supervision (β= -.02, p >.05). Hypothesis 5 was not supported.

For the test of ego-depletion as a mediator of the relationship between leader centrality and team-level abusive supervision (Hypothesis 6), the indirect effect was -.001
for the advice network and .001 for the friendship network. Because the 95% confidence intervals for both effects contained zero, I conclude that Hypothesis 6a and 6b were not supported.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Feeling trusted</th>
<th>Depletion</th>
<th>Team-AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.25(.18)***</td>
<td>1.13(.44)*</td>
<td>1.18(.29)***</td>
</tr>
<tr>
<td>Leader Negative affectivity</td>
<td>.10(.06)</td>
<td>.51(.14)**</td>
<td>.11(.06)</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.005(.004)</td>
<td>-.02(.01)*</td>
<td>.006(.004)</td>
</tr>
<tr>
<td>Leader friendship centrality</td>
<td>.02(.02)</td>
<td>-.03(.04)</td>
<td>-.01(.02)</td>
</tr>
<tr>
<td>Leader advice centrality</td>
<td>.07(.02)**</td>
<td>.05(.06)</td>
<td>-.05(.03)</td>
</tr>
<tr>
<td>Feeling trusted</td>
<td></td>
<td></td>
<td>-.02(.07)</td>
</tr>
<tr>
<td>Depletion</td>
<td></td>
<td></td>
<td>-.02(.03)</td>
</tr>
</tbody>
</table>

| $R^2$                           | .05**           | .06**     | .04       |

Note: N = 289; Tabled values are unstandardized regression coefficients and standard error in parentheses. * p<.05, ** p<.01, *** p<.001

Table 4. Regression and PROCESS results of the relationship between leader centrality, feeling trusted, ego-depletion, and team-level abusive supervision
**Member-Level Hypothesis Test**

Hypotheses 7 through 12 predicted that member centrality in intra-team social networks influence individual-level abusive supervision through two psychological mechanisms: perceived utility and identity threat. Specifically, Hypotheses 7 and 10 predicted that member centrality in intra-team networks will be positively associated with the perceived utility of team members and identity threat posed by team members, respectively. Hypotheses 8 and 11 predict that the perceived utility of members is negatively related to team member-directed abusive supervision and identity threat positively relates to team member-directed abusive supervision, respectively. Finally, Hypotheses 9 and 12 predict that members’ centrality indirectly influences individual-level abusive supervision through perceived utility and identity threat, respectively. I used the SPSS PROCESS mediation module (Model 4) to test hypotheses at the member level.

Table 5 presents the regression results for member-level hypothesis tests. Following Becker (2005), I eliminated control variables that were not significant predictors of any of the dependent variables (e.g., member gender, education, team size). The first column in Table 5 shows regression results team member centrality predicting perceived utility. Members’ centrality in intra-team advice networks was positively related to member’s perceived utility ($\beta = .22, p < .001$) and members’ centrality in friendship networks was unrelated to perceived utility ($\beta = .09, p > .05$). Hypothesis 7a was supported for the advice network but Hypothesis 7b was not for the friendship network. The third column in Table 5 shows regression results for perceived utility predicting individual-level abusive supervision (i.e. Hypothesis 8). Results indicated that perceived
utility was negatively related to individual-level abusive supervision ($\beta = -0.10, p < .01$). Hypothesis 8 was supported.

The hypothesis that perceived utility mediates the relationship between member centrality and individual-level abusive supervision (Hypothesis 9) was tested with PROCESS using 5,000 bootstrapped samples and bias-corrected confidence intervals. The 95% confidence interval (CI) of the first mediation path of member advice centrality through perceived utility did not include zero (Indirect effect: 95% CI: -0.04, -0.01). Hypothesis 9a was supported for the advice network. However, the 95% confidence interval (CI) of the first mediation path of member friendship centrality through perceived utility included zero (Indirect effect: -0.01, 95% CI: -0.02, .00). Hypothesis 9b was not supported for the friendship network.

The second column in Table 5 shows regression results for member centrality predicting identity threat. Members’ centrality in intra-team advice networks positively predicted identity threat ($\beta = 0.33, p < .001$) and centrality in friendship networks was not related to identity threat ($\beta = 0.05, p > .05$). Hypothesis 10 was supported for the advice network and not supported for the friendship network.

The third column in Table 5 shows regression results for identity threat predicting individual-level abusive supervision (i.e. Hypothesis 11). Results indicated that identity was not significantly related to individual-level abusive supervision ($\beta = 0.05, p < .10$). Hypothesis 11 was not supported.

The hypothesis that identity threat mediates the relationship between member centrality and individual-level abusive supervision (Hypothesis 12) was tested with PROCESS using 5,000 bootstrapped samples and bias-corrected confidence intervals.
The 95% confidence interval (CI) of the first mediation path of indirect effects of advice centrality through identity threat did not include zero (95% CI: -.04, -.01). However, the 95% confidence interval (CI) of the first mediation path of indirect effects of friendship centrality through identity threat included zero (95% CI: -.001, .012). Hypothesis 12a was supported for the advice network but Hypothesis 12b was not for the friendship network.
Variables | Perceived utility | Identity threat | Individual AS |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.86(.34)***</td>
<td>1.83(.38)***</td>
<td>.99(.19)***</td>
</tr>
<tr>
<td>Member-Leader relational tenure</td>
<td>.02(.01)</td>
<td>.01(.01)</td>
<td>.01(.007)*</td>
</tr>
<tr>
<td>Member negative affectivity</td>
<td>.29(.11)**</td>
<td>.13(.12)</td>
<td>.05(.05)</td>
</tr>
<tr>
<td>Leader negative affectivity</td>
<td>-.31(.14)*</td>
<td>-.13(.15)</td>
<td>.10(.07)</td>
</tr>
<tr>
<td>Member friendship centrality</td>
<td>.08(.04)</td>
<td>.05(.05)</td>
<td>-.0008(.02)</td>
</tr>
<tr>
<td>Member advice centrality</td>
<td>.22(.04)***</td>
<td>.31(.05)***</td>
<td>-.02(.02)</td>
</tr>
<tr>
<td>Perceived utility</td>
<td></td>
<td></td>
<td>-.10(.03)**</td>
</tr>
<tr>
<td>Identity threat</td>
<td></td>
<td></td>
<td>.05(.03)</td>
</tr>
</tbody>
</table>

| $R^2$ | .19*** | .20*** | .08** |

Note: N = 289; Tabled values are unstandardized regression coefficients and standard error in parentheses. * p<.05. ** p<.01 *** p<.001

Table 5. Regression and PROCESS results of the relationship between member centrality, perceived utility, identity threat, and individual-level abusive supervision.
**Tests of Cross-Level Moderation Hypotheses**

A final set of hypotheses predicts that leader centrality moderates the proposed mediating effects at the member level. Specifically, Hypothesis 13 predicts that leader centrality weakens the negative indirect effect of member centrality on individual-level abusive supervision through perceived utility and Hypothesis 14 predicts that leader centrality weakens the positive indirect effect of member centrality on individual-level abusive supervision through identity threat.

Table 6 presents the relevant regression results for testing moderated indirect effects. The first column in Table 6 shows results for the test of leader advice centrality on the relationship between member advice centrality and members’ perceived utility. The interaction term was not significant ($\beta = .03, p > .05$), indicating that the effects of member advice centrality on perceived utility did not differ depending on the level of leader advice centrality. The second column in Table 6 shows the cross-level moderating results for leader advice centrality on the relationship between member advice centrality and identity threat. The interaction was not significant ($\beta = -.02, p > .05$), indicating that the effects of member advice centrality on identity threat did not differ depending on the level of leader advice centrality.

The fourth column of in Table 6 shows results for the test of leader friendship centrality on the relationship between member friendship centrality and perceived utility. The interaction term was not significant ($\beta = .03, p > .05$), indicating that the effects of member friendship centrality on perceived utility did not differ depending on the level of leader friendship centrality. The fifth column in Table 6 shows results for the test of leader friendship centrality moderation on the relationship between member friendship
centrality and identity threat. The interaction was not significant ($\beta = .001$, $p > .05$), indicating that the effects of member friendship centrality on identity threat did not differ depending on the level of leader friendship centrality.

I next examined whether the magnitude of the indirect effects differed significantly between high and low levels of the moderator using the PROCESS moderated indirect effect module (Model 7, Hayes, 2015). In this analysis, PROCESS calculates an index of moderated indirect effects. I first examined whether leader centrality moderates the mediation path via perceived utility. The index of the first moderated mediation ($\text{member} \times \text{leader advice centrality} \rightarrow \text{perceived utility} \rightarrow \text{individual-level AS}$) was not significant ($\rho = -.002$, SE = .005, 95% CI: -.01 to .006). Hypothesis 13a was not supported. The same test was conducted with leader and member friendship centrality. The index of the moderated mediation ($\text{member} \times \text{leader friendship centrality} \rightarrow \text{perceived utility} \rightarrow \text{individual-level AS}$) was not significant ($\rho = -.004$, SE = .004, 95% CI: -.01 to .003). Hypothesis 13b was not supported.

Next, I tested whether mediation path via identity threat is moderated by leader centrality. The index of the moderated mediation ($\text{member} \times \text{leader advice centrality} \rightarrow \text{identity threat} \rightarrow \text{individual-level AS}$) was not significant ($\rho = -.001$, SE = .003, 95% CI: -.01 to .002). Hypothesis 14a was not supported as well. The same test was conducted with leader and member friendship centrality. The index of the moderated mediation ($\text{member} \times \text{leader friendship centrality} \rightarrow \text{identity threat} \rightarrow \text{individual-level AS}$) was not significant ($\rho = .000$, SE = .002, 95% CI: -.004 to .005). Hypothesis 14b was not supported as well.
Table 7 presents an overview of the hypotheses and results presented above. In Chapter 6, these findings are discussed.
Table 6. Regression results of the moderated mediation relationships between leader centrality, member centrality, and individual-level abusive supervision

<table>
<thead>
<tr>
<th>Variables</th>
<th>Perceived utility</th>
<th>Identity threat</th>
<th>Individual AS</th>
<th>Perceived utility</th>
<th>Identity threat</th>
<th>Individual AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.50***</td>
<td>2.10**</td>
<td>.99***</td>
<td>3.57***</td>
<td>2.40***</td>
<td>1.31***</td>
</tr>
<tr>
<td>Member-Leader relational tenure</td>
<td>.02</td>
<td>.01</td>
<td>.01*</td>
<td>.02</td>
<td>.01</td>
<td>.01*</td>
</tr>
<tr>
<td>Member negative affectivity</td>
<td>.29**</td>
<td>.13</td>
<td>.05</td>
<td>.28**</td>
<td>.13</td>
<td>.05</td>
</tr>
<tr>
<td>Leader negative affectivity</td>
<td>-.32*</td>
<td>-.15</td>
<td>.10</td>
<td>-.32*</td>
<td>-.14</td>
<td>.09</td>
</tr>
<tr>
<td>Member friendship centrality</td>
<td>.08</td>
<td>.06</td>
<td>-.002</td>
<td>-.03</td>
<td>.06</td>
<td>.003</td>
</tr>
<tr>
<td>Member advice centrality</td>
<td>.12</td>
<td>.43*</td>
<td>-.01</td>
<td>.23***</td>
<td>.32***</td>
<td>-.01</td>
</tr>
<tr>
<td>Leader friendship centrality</td>
<td>-.004</td>
<td>-.002</td>
<td>-.004</td>
<td>-.12</td>
<td>-.01</td>
<td></td>
</tr>
<tr>
<td>Leader advice centrality</td>
<td>-.15</td>
<td>-.07</td>
<td>-.07</td>
<td>-.14*</td>
<td>-.07**</td>
<td></td>
</tr>
<tr>
<td>Perceived utility</td>
<td></td>
<td></td>
<td>-.10**</td>
<td></td>
<td></td>
<td>-.10**</td>
</tr>
<tr>
<td>Identity threat</td>
<td></td>
<td></td>
<td></td>
<td>.05</td>
<td></td>
<td>.04</td>
</tr>
<tr>
<td>Member * Leader advice centrality</td>
<td>.03</td>
<td>-.02</td>
<td></td>
<td>.03</td>
<td></td>
<td>.001</td>
</tr>
<tr>
<td>Member * Leader friendship centrality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ R^2 = .20*** \quad .22*** \quad .07** \quad .20** \quad .22*** \quad .10*** \]

Note: N = 289; Tabled values are unstandardized regression coefficients and standard error in parentheses. * p<.05. ** p<.01 *** p<.001
<table>
<thead>
<tr>
<th>No.</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Leader in-degree centrality in intra-team (a)advice/(b)friendship networks is positively associated with leaders’ belief that they are trusted by team members.</em></td>
<td>1a Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1b Not Supported</td>
</tr>
<tr>
<td>2</td>
<td><em>Leaders belief that they are trusted is negatively associated with team-level abusive supervision.</em></td>
<td>Not Supported</td>
</tr>
<tr>
<td>3</td>
<td><em>Leader (a)advice/(b)friendship centrality has a negative indirect effect on team-level abusive supervision via leaders’ belief that they are trusted.</em></td>
<td>3a/b Not Supported</td>
</tr>
<tr>
<td>4</td>
<td><em>Leader (a)advice/(b)friendship centrality in intra-team advice/friendship social networks is positively associated with leader ego-depletion.</em></td>
<td>4a/b Not Supported</td>
</tr>
<tr>
<td>5</td>
<td><em>Leaders’ ego-depletion is positively associated with team-level abusive supervision.</em></td>
<td>Not Supported</td>
</tr>
<tr>
<td>6</td>
<td><em>Leader in-degree centrality in intra-team (a)advice/(b)friendship networks has a positive indirect effect on team-level abusive supervision via leaders’ ego-depletion.</em></td>
<td>6a/b Not Supported</td>
</tr>
<tr>
<td>7</td>
<td><em>A team member’s in-degree centrality in intra-team advice/friendship social networks is positively associated with the perceived utility of the team member to leaders.</em></td>
<td>7a Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7b Not Supported</td>
</tr>
<tr>
<td>8</td>
<td><em>Perceived utility of a team member is negatively associated with individual-level abusive supervision.</em></td>
<td>Supported</td>
</tr>
<tr>
<td>9</td>
<td><em>A team member’s in-degree centrality in intra-team (a)advice/(b)friendship networks has a negative indirect effect on individual-level abusive supervision via perceived utility of the team member to leader.</em></td>
<td>9a Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9b Not Supported</td>
</tr>
<tr>
<td>10</td>
<td><em>A team member’s in-degree centrality in intra-team (a)advice/(b)friendship networks is positively associated with leaders’ identity threat.</em></td>
<td>10a Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10b Not Supported</td>
</tr>
<tr>
<td>11</td>
<td><em>Leader identity threat is positively associated with individual-level abusive supervision.</em></td>
<td>Not Supported</td>
</tr>
<tr>
<td>12</td>
<td><em>A team member’s centrality in intra-team (a)advice/(b)friendship networks has a positive indirect effect on individual-level abusive supervision via leaders’ identity threat.</em></td>
<td>12a Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12b Not Supported</td>
</tr>
<tr>
<td>13</td>
<td><em>The negative indirect effects of member (a) advice/(b)friendship centrality via perceived utility are weaker when leader (a)advice/(b)friendship centrality is high.</em></td>
<td>13a/b Not Supported</td>
</tr>
<tr>
<td>14</td>
<td><em>The positive indirect effects of member (a)advice/(b)friendship centrality via identity threat are weaker when leader (a)advice/(b)friendship centrality is high.</em></td>
<td>14a/b Not Supported</td>
</tr>
</tbody>
</table>

*Table 7. Summary of study hypotheses and findings*
CHAPTER 6
DISCUSSION

In this chapter, I discuss findings of this study by relating these findings to the purposes of the dissertation. The chapter begins with an overview of the findings, and includes a discussion of their theoretical implications. Next, the limitations of the study and suggestions for future research are presented. The chapter concludes with practical implications of the study results.

Overview of Findings

Social networks are an inevitable feature of the workplace. Yet, research has not adequately addressed the potential theoretical and practical implications of how social networks influence leader behavior, especially abusive supervision. Network theory of social capital suggests that the position individuals occupy in social networks (e.g. friendship, advice networks) shape the attitudes and behaviors of those individuals (Granovetter, 1985; Lin, 2000). The purpose of this dissertation was to use network theory of social capital as an overarching theoretical framework to examine how and when the network position of leaders and members in intra-team networks influences abusive supervision. Specifically, I examined how network centrality of leaders and members affects leaders' psychological states and, in turn, abusive supervision at the individual and team level.
As discussed in Chapter 1, this dissertation aimed to extend the abusive supervision and social network literatures. First, this dissertation set out to identify relational factors that predict abusive supervision toward team members in general. Second, this dissertation aimed to shed light on the role of relational factors in explaining what specific subordinates become victims of abusive supervision. Finally, this dissertation attempted to offer a balanced understanding of social networks by examining network centrality of leaders and members as predictors of abusive supervision through mechanisms that capture the social benefits and costs of network position. I explored this research agenda using a time-lagged survey design with 289 leaders. The results provided partial support for predictions that derive from my theoretical framework.

The position of leaders in intra-team social networks

Results of the study show that leaders have varied perceptions of their own network position and access to informal resources. For leaders, the mean level of advice centrality was 4.26/5.00 (SD = .96) and the mean level of friendship centrality was 3.18/5.00 (SD = 1.22). This means that leaders have a socio-cognitive map of their position within the network of relationships among the team-members that they lead and these positions can range from very peripheral to very central. This conclusion would be consistent with previous leadership literature suggesting that leaders holding formal supervisor responsibilities may not always have access to the informal and political resources that ties to others provide (Oh et al., 2006).

For the leaders in my sample, the mean centrality in intra-team advice networks was significantly higher than the mean centrality in intra-team friendship networks: $t = -14.5, p < .001$. There are several possible explanations for this mean difference. First, it
could mean that team members tend to approach leaders more for the sake of task-related advice than for emotional support because they feel uncomfortable being friends with their leaders. Second, the dissimilarity (owing to their differing roles and responsibilities) may make it difficult for leaders and team members to find the common ground that is often associated with the friendship development. Third, leaders prefer to not be friends with their members because friendship relationships can complicate the decision-making responsibilities (e.g., allocating resources) that come with the supervisor role. The latter explanation is supported by a supplemental analysis of responses to questions about network preferences, which stated as following: ‘We would also like to know where you would like to be located in the advice/friendship network. It may be that you are located where you would like to be. In that case, your actual location (i.e. rating of yourself in the question above) would be the same as your preferred location. Or you may prefer to be in a location that is different from where you are actually located. Please select the option that best describe your preference of the location in the advice/friendship network (1 = Peripheral position to 5 = Central position)’. The mean preference for the advice network (M = 4.01, SD = 1.02) was significantly higher than the mean preference for the friendship network (M = 3.15, SD = 1.19) (t = -12.58, p < .001), suggesting that leaders are not as concerned about occupying central positions in friendship networks.

**Social costs and benefits of leader network position**

Much of the research on social networks and social capital has not accounted for the role of actors’ cognition (Adler & Kwon, 2002). This approach has been criticized by cognition-oriented scholars as being ‘under-psychologized” (Kilduff, Tsai, & Hanke, 2006, p. 1035). The results from my study are consistent with the characterization of
leader network position in intra-team networks as being a pre-cursor of one psychological state that I examined: feeling trusted. Thus, the frequency of advice exchange (but not friendship exchange) with their team members shaped leaders’ social judgements and evaluations of their own internal states. This finding makes an important contribution to the social network literature because little research has examined associations between social network position and individuals’ psychological states.

There was no effect of leader centrality on leaders’ ego-depletion. I theorized that being central in advice and friendship networks could be cognitively and emotionally demanding. However, it is conceivable that to some extent, being central in intra-team networks may provide psychological energy and resources, which decreases ego-depletion. For example, occupying central position in advice and friendship networks could be granted by attention, recognition, and positive emotions (Venkataramani et al., 2013).

I did not find support for the links between the two proposed psychological states, feeling trusted and depletion, and team-level abusive supervision. I contended that leaders who feel trusted by team members would reciprocate the trust by not displaying hostile behavior and that depleted leaders impulsively show abusive supervision toward their team members. One of the potential reasons why I did not find the support is that trust may not be reciprocated (Korsgaard, Brower, & Lester, 2015), creating trust asymmetry. Furthermore, leaders may develop trust differentially with each of their subordinates (e.g. LMX), rather than developing trust at the collective level (i.e. trust toward all team members). Likewise, depleted leaders do not necessarily display hostile
behavior toward all their subordinates (Tepper, 2007), and can be provoked and show hostility only when there is a trigger such as team member’ deviant behavior.

Finally, there were no significant indirect effects of leader centrality on team-level abusive supervision through feeling trusted or depletion. However, correlational evidence suggested that leader advice centrality was negatively associated with team-level abusive supervision, indicating that central leaders are less likely to show abusive behavior toward team members. This warrants further investigation of the mechanisms by which leader centrality influences abusive supervision.

Network leadership theory suggests that leaders' interpersonal connections play important roles in achieving leader effectiveness by providing access to informal and political resources and by shaping leaders’ attitudes and behaviors (Balkundi & Kilduff, 2006; Carter et al., 2015). Prior studies in the areas of social networks and leadership have mostly focused on the effects of social networks on leaders’ instrumental outcomes (e.g. in-role/ex-role performance, reputation), ignoring relational factors that influence leaders’ psychology and behavior. This dissertation extends the literature by examining the effect of social networks on leaders’ psychological states. Specifically, this dissertation provides empirical evidence that explains how centrality is associated with the psychological state of feeling trusted.

The position of members in intra-team social networks

My study results also suggest that leaders have varied perception of their focal members’ centrality in the advice network (M = 3.07, SD = 1.22) and friendship network (M = 3.21, SD = 1.16). It appears that leaders monitor team members’ interpersonal relationships and build a socio-cognitive map of whether each team member occupies a
central or peripheral position in intra-team networks. This is consistent with the cognitive social structure perspective (Krackhardt, 1987), which suggests that individuals embedded in social networks observe social relationships among others as well as their own interpersonal relationships.

**Social costs and benefits of member network position**

This dissertation contributes to social network literature by shedding light on relationships between member centrality in intra-team social networks and leaders’ psychological states. Research of this sort is somewhat unusual in social network literature. Previous social network research has focused primarily on the way ego's networks influence ego's instrumental outcomes (e.g. performance, information). This dissertation revealed that alters’ (i.e. members) social network position can affect egos' (i.e. leaders) psychological states, which in turn influence egos' behavior and attitudes toward alters. Thus, this dissertation adds empirical evidence that social network locations have effects on a broader set of psychological mechanisms (e.g. perceived utility, identity threat) including not only how individuals feel about themselves but also how they feel about others who are also embedded in the social networks.

Specifically, results in this dissertation indicated that central team members were perceived to have high utility to leaders and perceived to have high leader identity (even though focal members did not occupy formal leadership positions). The association between social networks and identity has not been examined empirically though it has been theoretically argued that social networks can be a major source of identity development (DeRue et al., 2009; DeRue & Ashford, 2010). Identity literature suggests that individuals form an identity either based on their roles or based on the observation of
their own social interaction with others (Stets & Burke, 2000). In addition, social process theory of leader identity construction (DeRue & Ashford, 2010) suggests that a pattern of interpersonal relationships could lead to informal leader emergence and leader identity construction. My dissertation study is one of the very few that empirically examine leader or member centrality as an antecedent of leader identity.

The current study results showed that leaders perceive centrally positioned team members to have utility and as a potential threat. These paradoxical results suggest that social environments have dynamic and complex effects on the attitudes of individuals who are embedded in social networks. Previous social network research has mostly focused on the positive outcomes of positive social networks (e.g. advice, friendship) or negative outcomes of negative social networks (e.g., avoidance networks). However, in a recent review, Adler and Kwon (2002) posited that positive social networks may also come with costs and that these costs may surpass the benefits that positive social networks provide. My dissertation research highlights the importance of understanding both the benefits and costs of positive networks by showing that seemingly positive central positions may yield unexpected costs (i.e. identity threat) while providing benefits (i.e. perceived utility).

My dissertation research adds leader identity threat to the collection of mechanisms that explain individual-level abusive supervision. One of the core tenets of victim precipitation theory is that provocative individuals may be prone to becoming victims of aggression. Previously identified victim characteristics (that trigger abusive supervision) include low-performance, deviance, and negative affectivity (Simon et al., 2015; Tepper et al., 2006). Findings in this dissertation provide evidence that leaders may
perceive centrally positioned team members to be informal leaders, which can threaten the leader’s identity. Leaders, in turn, abuse centrally positioned team members, presumably to restore their own sense of identity. The leader identity is an important component of the self-concept of individuals who are assigned formal hierarchical roles (DeRue & Ashford, 2010). My findings illustrate an unfortunate situation where abusive supervisor behavior results from inconsistency between the informal hierarchy and formal hierarchy.

The last set of hypotheses predicted that leader centrality would weaken the effect of member centrality on individual-level abusive supervision via perceived utility or identity threat because central leaders have access to psychological resources and are therefore less likely to find central members to be useful or a source of threat. There was no evidence of moderated indirect effects. Interestingly, leader centrality in the advice network showed negative effects on identity threat ($\beta = -.15, p<.01$). This means that, regardless of their members’ network position, central leaders are less likely to perceive their team members as informal leaders.

**Study Limitations**

As is the case with all social research, this dissertation has limitations that warrant mention. In this section I acknowledge and discuss how these limitations could be addressed in future research. The study limitations that will be discussed include 1) construct operationalization, and 2) potential common method variance, and 3) limited focus on centrality.

**Construct operationalization: network visualization and self-report abusive supervision**

98
Although roster or name generating methods are most-frequently used in prior network literature, this dissertation used visualization network measures. Network visualization measures are relatively new but have been tested with various samples and showed reasonable predictive validity with outcomes proposed in prior network literature, and discriminant validity with similar constructs (Brands et al., 2015; Mehra et al., 2014). It may be argued that this measure is a particularly appropriate social network measure for testing proposed hypotheses in this dissertation based on the assumption that team leaders have a cognitive map of social networks, and that the cognitive map influences leaders’ attitude and behavior (Kilduff, Crossland, Tsai, & Krackhardt, 2008; Krackhardt, 1987). In general, the visualization measure can ease the difficulty of obtaining social network data. One of the difficulties of conducting social network studies is to collect data because answering social network questions using roster or name generating method is demanding for study participants and can result in poor response rates (e.g. Marsden, 1990). The visualization measure reduces respondents’ effort to go through all team members’ names and still capture overall patterns with a single question. This, in turn, could increase generalizability because this measure makes it easier for researchers to collect social network data with participants across various organizations and industries. Despite these benefits, there is a possibility that network visualization measures engender socially desirable responses. Leaders may be inclined to over-estimate their centrality to the extent they believe that occupying a central position is seen as appropriate for leaders.

Operationalizing abusive supervision with supervisor self-reports may also evoke concerns about socially desirable responding. This is because supervisors may be hesitant
to admit that they perform acts that could be harmful to others. It is for that reason that abusive supervision is usually measured from the perspective of subordinates. However, studies of deviance and counter-productive work behavior (CWB) usually rely on employee self-reports. The rationale for this paradigm is that workplace deviance is often performed in a covert fashion and that the perpetrators of CWB are best able to report whether CWB has been performed. In two recent studies, scholars have operationalized abusive supervision using supervisor self-reports. In these studies, abusive supervision performed as theorized and mean levels and standard deviations were similar to what has been observed in studies of abusive supervision that have relied on subordinate reports. We can therefore have some confidence in the validity and usefulness of self-reported abusive supervision.

*Potential common method variance*

This dissertation used surveys conducted with 289 supervisors. Single-source sample (i.e. supervisor only) may not be ideal for testing causal relationships because of potential common method variance. That is, it is possible that the exogenous variables (i.e., centrality), mediating mechanisms (i.e. feeling trusted, depletion, utility, threat), and the dependent variable (i.e., abusive supervision) may be related for reasons other than the presumed mechanisms. I made an effort to address potential concerns about common method bias by using a time-lagged study design that separates independent, mediating, and dependent variables (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, I acknowledge that even a time-lagged design does not fundamentally exclude the possibility that observed relationships are attributable to common-method variance.
My dissertation research also evokes concerns about reverse causality. Although I maintained that social networks shape leaders’ psychological states and abusive supervision, it is conceivable that acts of abusive supervision influence patterns of interpersonal relationships (i.e. social networks) of leaders and team members. For instance, team members may be hesitant to approach abusive supervisors, making abusive leaders less central in intra-team advice and friendship networks. Likewise, victims of abusive supervision may become pushed to the periphery as team members may want to avoid leaders’ abusive behaviors by not being associated with victims.

Although my study design could not rule out the possibility of reverse causality, I was able to conduct supplemental analyses suggesting that team-level abusive supervision at Time 1 does not predict leader centrality at Time 3: for leader advice centrality, \( \beta = -0.03, p = 0.46 \); for leader friendship centrality \( \beta = 0.06, p = 0.91 \). In addition, the result demonstrated that individual-level abusive supervision at Time 1 does not predict member centrality at Time 3: for member advice centrality, \( \beta = -0.01, p = 0.84 \); for member friendship centrality \( \beta = 0.03, p = 0.45 \).

**Limited focus on centrality**

This dissertation is also limited in its focus on centrality. I chose centrality as a focal network characteristic that may have the biggest impact on abusive supervision due to its theoretical relevance (e.g. visibility, informal leader emergence). However, the choice of centrality has left unstudied, for example, possible associations between abusive supervision and network factors like brokerage and tie strengths. Previous research suggests that individuals occupying brokerage positions tend to develop trust at
the collective level whereas those low in brokerage tend to trust only local sub-group members, which may increase hostility toward non-local group members (Coleman, 1988; Granovetter, 1973).

**Future Research Directions**

Based on findings and limitations of this dissertation, several future research directions are suggested in this section. These suggestions include 1) mediating mechanisms by which leader centrality influences abusive supervision, 2) different network characteristics, 3) boundary conditions for the association between member centrality and individual-level abusive supervision, and 4) effects of abusive supervision on team’s social networks.

**Mediating mechanisms linking centrality and abusive supervision**

Leaders’ psychological experiences that mediate leader’s network positions and team-level abusive supervision warrant future research. Although I found no support for feeling trusted and ego-depletion as mediators of leader centrality, there was a negative correlation between leader advice centrality and team-level abusive supervision. This may be taken to mean that there are mechanisms yet to be examined. One potential mediator is status, defined as the amount of respect, influence, and prominence that an individual enjoys in the eyes of others (Magee & Galinsky, 2008). Status has been suggested as a determinant of leaders’ aggressive behavior. Specifically, prior research suggests that individuals holding positional power but lacking status tend to display demeaning behavior more often than those who have positional power and status (Fast, Halevy, & Galinsky, 2012). Furthermore, centrality has been found as an indicator of
influence and status. Regardless of whether having positional power or not, central members in informal social networks tend to be respected by others and exert more influence over group decision making (Kameda, Ohtsubo, & Takezawa, 1997). Central leaders may feel more status than peripheral leaders because asking for advice and friendship could mean that supervisors have positive reputation and expertise. Felt status may, in turn, decreases team-level abusive supervision because supervisors feeling high status do not want to ruin their positive reputation and additionally because of self-enhancement motivation.

Team members’ status, engendered by their centrality, could be a potential mechanism for individual-level abusive supervision. Victim precipitation literature suggests that individuals with high status tend to be at low risk of being a victim of aggression because high status people have social power and retributinal potential (Aquino, Grover, Bradfield, & Allen, 1999). Hence, because they have higher status, members with high centrality in intra-team networks may be unlikely to become targets of individual-level abusive supervision.

Effects of different network characteristics (types and positions) on various leader behaviors

One of the interesting findings in this dissertation is that friendship centrality was unrelated to the proposed psychological mechanisms and abusive supervision. Social network scholars have long distinguished networks based on the content of interpersonal ties, and have suggested that two representative networks exist within organizations: instrumental and expressive (Ibarra & Andrews, 1993). These different types of networks
have shown to have differential impacts on employee attitudes and behavior. For example, previous social network research suggests that expressive network ties yield affective outcomes such as cohesion, whereas instrumental ties yield task outcomes such as information and resources (Brass & Burkhardt, 1993; Lin, 1999; Lincoln & Miller, 1979; Morrison, 2002). Thus, centrality in different networks may have impacts on different types of leader behavior. For example, although members’ friendship centrality has not shown to be related to abusive supervision, it may have positive association with leaders’ consideration behavior potentially because team members high in friendship centrality are perceived approachable and supervisors may feel positive emotions toward them.

Network characteristics other than centrality merit attention. Brokerage positions are another important characteristic in social network literature. As discussed in chapter 2, brokerage positions connect different social groups that are not connected otherwise, and provide access to novel information and control over the groups connected through brokers. A potential negative consequence of occupying a brokerage position is that the brokers can be perceived as opportunistic (Burt, 2005). We might speculate that team members high in brokerage positions tend to be perceived as less committed and potentially harmful to leaders, resulting in them becoming targets of abusive supervision.

**Boundary conditions for member centrality effects on individual-level abusive supervision**

Leader centrality was hypothesized to moderate the indirect effect of member centrality on individual-level abusive supervision through utility and identity threat.
However, I found no support for the proposed moderating effects of leader centrality. Boundary conditions for the link between member centrality and individual-level abusive supervision warrant additional investigation especially because of the paradoxical effects of member centrality on abusive supervision. Due to the co-existence of social benefit and cost of centrality, it would be interesting to identify and examine boundary conditions that strengthen positive indirect effects but weaken negative indirect effects.

Boundary conditions could be at various levels: team-level, supervisor-level, and team member level. Examples of team level moderators include team network density and team climate (e.g. cooperative and competitive climate). Team network density, defined as the ratio of actual ties to all possible ties in teams, may weaken both positive and negative indirect effects of member centrality because in densely connected teams most team members actively exchange information and emotional support, and thus central members could be of less value to leaders whereas in low-density teams, central members may be more visible and perceived as of high value. Competitive team climate may strengthen the negative indirect effect through threat because in highly competitive teams leaders are inclined to perceive central team members as potential competitors whereas in less competitive teams leaders may be not inclined to perceive central team members as threat.

Examples of leader-level boundary conditions for the member centrality effect include leaders’ individual identity and depletion. Leader’s individual identity refers to one’s tendency to differentiate themselves from others and is shown to increase team-level abusive supervision (Johnson et al., 2012). Leaders’ individual identity may strengthen the negative indirect effects of member centrality because supervisors high in
individual identity would be more sensitive to identity threat. Finally, member’s perceived warmth could be an example of a member-level boundary condition. Members high in warmth could be perceived as more pro-social and thus will be less likely to become threat to leaders. The positive link between member advice centrality and perceived utility will be strengthened when the central members are perceived warm because the central members will be perceived to have a good will, rather than intent to harm others.

**Abusive supervision’s influence on team networks**

This dissertation mostly focused on the relationships between social network factors and abusive supervision. However, as discussed in the review of study limitations, abusive supervision may influence network positions of leaders and team members, and subsequently team network structure. Prior evidence suggests that certain leader behavior (e.g. transformational leadership) influences team network density (Zhang & Peterson, 2011), and team members’ network positions (Bono & Anderson, 2005). Likewise, abusive supervision may decrease leaders’ centrality or victims’ (members’) centrality, and subsequently the density of intra-team advice or friendship networks. Interestingly, previous evidence suggests that sometimes abusive supervision can facilitate development of interpersonal relationships between team members. For example, Mitchell et al. (2015) in their study of third parties’ reaction to abusive supervision victims found that coworkers showed empathy and provided emotional support for the victims when the acts of leader abuse are perceived as not deserving for the victim. Showing empathy and expressing emotions between employees is a basis of friendship
development. Hence, it would be interesting to examine the effects of abusive supervision on the development of various interpersonal relationships and social networks.

Practical Implications

Social environment that decreases abusive supervision

Central members are valuable for teams and supervisors as they actively coordinate various sub-functions of teams and facilitate information flow. Yet, study results in this dissertation suggest that central members can become threats to their supervisors and, in turn, become victims of abusive supervision. Given this result, human resources (HR) professionals may need to put efforts to create team environments that reduce social costs. Indeed, results indicate that leader advice centrality decreases identity threat and team-level abusive supervision. This means that helping supervisors to be at the center of intra-team networks can maintain the positive effects of member centrality and reduce the social costs.

Leader selection and development

Prior abusive supervision research has demonstrated the detrimental effects of abusive supervision on organization effectiveness (Tepper, 2007). Given these negative effects, it is important to prevent supervisors from displaying abusive behavior toward their team members. HR professionals may enhance leader effectiveness by assisting team leaders to learn social skills or develop emotional intelligence. Social network research suggests that competent employees with expertise and knowledge do not necessarily receive requests for advice when not being perceived as warm (Casciaro & Lobo, 2008). It means that knowledge exchange or information flow can be disrupted in
the absence of interpersonal skills. Leaders who reside in peripheral network positions will have limited access to political and informal resources and will therefore be less likely to be effective. Thus, in the leader selection process, organizations need to consider interpersonal skills and people management skills as core criteria of performance evaluation.

**Conclusion**

This dissertation aimed to identify social network factors that influence abusive supervision considering both social benefit and cost of centrality of leaders and members. Findings in this dissertation suggest that informal relationships in organizations are related to leaders’ attitudes and behaviors. Furthermore, the results suggested that social networks could yield unexpected negative consequences as well as positive outcomes. This dissertation extends prior literatures of abusive supervision, leadership, and social networks by conceptualizing abusive supervision as a relationally embedded phenomenon and finding paradoxical effects of centrality on abusive supervision.
References


Behavior and Human Decision Processes, 115(2), 191–203.  
http://doi.org/10.1016/j.obhdp.2011.03.001

http://doi.org/10.1177/0149206308321555


http://doi.org/10.1086/225469


http://doi.org/10.1037/t06819-000

http://doi.org/10.1016/j.leaqua.2011.07.020


http://doi.org/10.1016/j.leaqua.2011.09.009


http://doi.org/10.1016/j.leaqua.2012.11.005

Hoobler, J. M., & Brass, D. J. (2006). Abusive supervision and family undermining as


Kiazad, K., & Restubog, S. (2010). In pursuit of power: The role of authoritarian leadership in the relationship between supervisors’ Machiavellianism and


Tepper, B., Moss, S. E., & Duffy, M. K. (2011). Predictors of Abusive Supervision:


Appendix: Scales and Items

Perceived network position of supervisor themselves (Mehra et al., 2015)

1. Outside position
2. Somewhat on the outside of the network
3. Neither on the outside or at the center of the network
4. Somewhat at the center of the network.
5. At the center of the network.

[Friendship network] In this section, we are going to show you some stylized pictures of the informal friendship network that exists in your team (i.e. network among people you supervise including yourself). In each picture, small dots represent a person, and a line between dots indicates that those two people socialize often as friends (e.g. having lunch together, expressing emotional support, getting together after work). A person who is at the periphery of the network (Picture in the left below) has very few friendship connections. A person who is toward the center (Picture in the right below) has lots of friendship connections.

Choose the answer that best represents your view of how YOURSELF AND ONE OF YOUR SUBORDINATES LISTED BELOW are currently connected to others in your team's friendship networks. How would you rate the network location of each name below?

<table>
<thead>
<tr>
<th>Examples</th>
<th>Myself</th>
<th>Buffett, Warren</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completely on the outside of the network (e.g. very few people come for work related advice or friendship)</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>2. Somewhat on the outside of the network</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>3. Neither on the outside or at the center of the network</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>4. Somewhat at the center of the network.</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>5. At the center of the network (e.g. many people come to my me for work related advice or friendship).</td>
<td>〇</td>
<td>〇</td>
</tr>
</tbody>
</table>
[Advice networks] In this section, we are going to show you some stylized pictures of the informal advice exchange network that exists in your team (i.e. network among people you supervise including yourself). In each picture, small dots represent a person, and a line between dots indicates that those two people informally and voluntarily go to each other for advice (e.g. how jobs should be done, when things should be done, or why things are done). A person who is at the periphery of the network (Picture in the left below) has very few advice exchange connections. A person who is toward the center (Picture in the right below) has lots of advice exchange connections.

For each name listed below, using the scale below and the diagram above, choose the answer that best represents your view of how YOURSELF AND ONE OF YOUR SUBORDINATES LISTED BELOW are currently connected to others in your team's advice exchange networks. How would you rate the network location of each name below?

<table>
<thead>
<tr>
<th>Examples</th>
<th>1. On the periphery of the network (e.g. very few people come for work-related advice)</th>
<th>2. Somewhat on the periphery of the network</th>
<th>3. Neither on the periphery or at the center of the network</th>
<th>4. Somewhat at the center of the network</th>
<th>5. At the center of the network (e.g. many people come for work-related advice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myself</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Buffett, Warren</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Leaders’ Belief that They are Trusted – Adapted version of Baer et al. (2015)

Your opinions and thoughts about your team members. First set of questions below are about your working relationships with all your subordinates who directly report to you. Please indicate the extent to which you agree with each statement by using scale below (1: strongly disagree, 2: disagree, 3: neither agree or disagree, 4: agree, 5: strongly agree).

1. My team members let me have significant influence over how they do job.
2. My team members let me have an impact on issues that are important to them.
3. My team members would be willing to let me have complete control over their future in this company.
4. My team members would be comfortable giving me a task or problem which was critical to them, even if they could not monitor my actions.
5. My team members would tell me about mistakes they have made on the job, even if I could damage their reputation.
6. My team members would share their opinion about sensitive issues with me even if their opinions were unpopular.
7. My team members are afraid of what I might do to them at work.
8. If I asked why a problem happened, my team members would speak freely even if they were partly to blame.
9. If someone questioned my motives, my team members would give me the benefit of the doubt.
10. If I asked my team members for something, my team members respond without thinking about whether it might be held against them.


Next questions will ask also about how you have felt for the last three weeks. Thinking about the last three weeks, please indicate the extent to which you agree with each statement by using scale below (1, very slightly or not at all to 5, very much.)

1. I feel drained
2. My mind feels unfocused
3. It would take a lot of effort for me to concentrate on something
4. My mental energy is running low
5. I feel like my willpower is gone

Perceived Utility of a Team Member - Tepper et al. (2011)

This section asks various questions about the subordinate that you selected in the previous survey. The initials of the employee that you selected are XYZ. Please answer questions below for your employee with the initials of XYZ.

1. This team member is superior to other members that I’ve supervised before (1 = strongly disagree, 7 = strongly agree)
2. Rate the overall level of performance that you observe for this team member (1 = unacceptable, 7 = outstanding)
3. What is your personal view of this team member in terms of his or her overall effectiveness? (1 = very ineffective, 7 = very effective)
4. Overall to what extent do you feel this team member has been effectively fulfilling his or her roles and responsibilities? (1= not effectively at all, 7 = very effectively)

Identity Threat - Day & Sin (2011)
Questions in this section ask how you feel and think about your employee with the initials of XYZ. By using a scale below, please indicate the extent to which you agree with each item. (a scale ranging from 1, “strongly disagree,” to 5, “strongly agree.”)

1. This subordinate is a leader.
2. This subordinate sees him/herself as a leader.
3. If I had to describe this subordinate to others, I would include the word “leader”.
4. This subordinate prefers being seen by others as a leader.

**Team Level Abusive Supervision – Johnson et al. (2012)**

In this section, we’d like to learn about your behavior toward the full group of people who report to you – all your employees. How often have you used the following behaviors with your employees for the last several weeks? Response options:

1 = I cannot remember ever using this behavior with my group of employees
2 = I seldom use this behavior with my group of employees
3 = I occasionally use this behavior with my group of employees
4 = I use this behavior moderately often with my group of employees
5 = I use this behavior very often with my group of employees

1. Start arguments with them
2. Yell at or swear at them
3. Be rude to them
4. Make negative gestures toward them

**Individual Level Abusive Supervision – Johnson et al.(2012)**

The last two surveys asked questions about one of your employees. The initials of the employee was XYZ. The items in this section ask you about your behavior toward the employee with the initials XYZ. Please indicate to the extent to which you have engaged in each behavior specifically with this employee with the XYZ for the last several weeks. Response options:

1 = I cannot remember ever using this behavior with XYZ
2 = I seldom use this behavior with XYZ
3 = I occasionally use this behavior with XYZ
4 = I use this behavior moderately often with XYZ
5 = I use this behavior very often with XYZ

5. Start arguments with him/her
6. Yell at or swear at him/her
7. Be rude to him/her
8. Make negative gestures toward him/her
Please report your general feelings in terms of ten negative adjectives (e.g., irritable, ashamed, and upset) on a five-point scale (1 = usually do not feel this way, to 5 = usually feel this way).

1. Distressed
2. Upset
3. Guilty
4. Scared
5. Jittery
6. Afraid
7. Ashamed
8. Nervous
9. Irritable
10. Hostile