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PREDICTING IMPLEMENTATION CITIZENSHIP BEHAVIOR RATING  
DISCREPANCIES BETWEEN SUPERVISOR-SUBORDINATE DYADS

by

ALEXANDRA NICOLE KANDAH  
B.A. Meredith College, 2018

A thesis submitted in partial fulfillment of the requirements  
for the degree of Master of Sciences  
in the Department of Psychology  
in the College of Sciences at the  
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Orlando, Florida

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Major Professor: Mark Ehrhart

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## **ABSTRACT**

Organizational citizenship behavior (OCB), defined as behavior that is discretionary and not directly or explicitly recognized by the formal reward system, has gained significant interest in the literature over the past few decades. Recent OCB research has begun to address more specialized facets of citizenship behavior that target behaviors that support specific strategic goals in the organization. One form of OCB encompasses those behaviors that assist with the implementation of new practices or innovations in the organization, above and beyond typical implementation. This study extends both the general OCB literature and the newer literature on implementation citizenship by examining factors that predict the agreement between employee self-ratings and their supervisor's ratings of their implementation citizenship behavior. Demographic and contextual variables were examined as possible predictors of more or less agreement. Based on data from 400 substance use treatment providers under 70 supervisors, the results did not find support for the hypotheses. However, supplemental results did provide some new insights, such as the tendency for ratings to become more or less variable as a result of the study predictors. Implications and directions for future research are discussed.

## **ACKNOWLEDGMENTS**

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## CHAPTER ONE: INTRODUCTION

In the decades since it was first developed, organizational citizenship behavior (OCB) has gained significant empirical and practical attention. The concept represents one of the first attempts to define workplace behavior that is not explicitly required as part of one's job description but also yields widely positive organizational and individual outcomes (Podsakoff et al., 2009). It can be argued that OCB encompasses a more human side to employment, accounting for the considerate, cooperative, and oftentimes unrecognized behavior that ultimately can enhance the overall functioning of the organization. Thus, it is no surprise that hundreds of empirical articles studying OCB have been published since its original conception in the 1980s. Organ (1988) originally defined OCB as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (p. 4). In response to subsequent investigation into how OCB functions within the workplace, Organ modified the definition to state that OCB is "performance that supports the social and psychological environment in which task performance takes place" (Organ, 1997, p. 5). Organ made this modification in order to clearly differentiate between OCB and more general task performance in both their antecedents and outcomes, a pattern that has been consistently demonstrated in the literature (Podsakoff et al., 2009; MacKenzie et al., 1991; Motowildo & Van Scotter, 1994).

Research on OCB has repeatedly been consistently associated with a number of positive organizational and individual outcomes. Meta-analytic findings have established that OCB is positively related to unit-level performance (i.e., productivity, efficiency, profitability), customer satisfaction, job performance ratings, reward allocation decisions, and negatively related to costs,

unit-level turnover, and employee withdrawal criteria (turnover intentions, absenteeism, actual turnover) (Podsakoff et al., 2009). Though these findings are largely positive, a persistent overarching concern is the debate over which OCB rating source is most effective and reliable, considering OCB's potential benefits for multiple recipients. For instance, the previously mentioned meta-analysis by Podsakoff and colleagues (2009) found that the positive relationship between OCB and performance evaluations was moderated by rating source, such that the relationship was stronger when both measures were taken from the same source (i.e., both from the supervisor) than when they were taken by different sources (i.e., one from subordinate, one from supervisor). These findings suggest a need to better understand OCB measurement in order to fully understand the comprehensive effects of OCB. Specifically, it is likely that different rating sources provide distinct information, which could affect the nature of the relationships between OCB and its antecedents and/or outcomes. Because of the discretionary nature of OCB, certain behaviors might be better rated by certain rating sources. It is important that we further investigate differences in OCB rating sources in order to fully understand and encourage the performance of OCB so that we can reap the full benefits of OCB at both an individual and organizational level.

The purpose of this study is to determine whether there are individual and/or situational variables that influence self-other agreement (SOA) between subordinates (i.e., self-ratings) and their work group leaders (i.e., other-ratings) on a specific kind of OCB, implementation citizenship behavior (ICB). Implementation citizenship behavior addresses an employee's tendency to perform behaviors beyond what is required related to the implementation of evidence-based practice. The primary focus of this thesis is to further investigate the issue of rating disagreement on measures of organizational citizenship behavior. Several independent

variables (individual difference, demographic, and contextual) will be examined as potential predictors of SOA on a measure of implementation citizenship behavior. These relationships will be hypothesized within the theoretical context of observability. Specifically, it is posited that each predictor variable will variably influence how observable a subordinate's implementation citizenship behavior will be to their supervisor, which will affect rating agreement.

The theoretical contribution of this study is multi-faceted. The primary contribution will be to the organizational citizenship behavior literature, specifically in the area of rating agreement. Although organizational citizenship behavior has been empirically studied as an important determining factor of several positive individual and organizational outcomes, there is a consistent problem of rating disagreement between sources (i.e., self, coworker, supervisor). Thus, the main overarching contribution of this thesis is to further delineate potential circumstances in which organizational citizenship behavior ratings are in agreement. Additionally, although the literature on self-other agreement is also quite thorough, the majority focuses mostly on SOA outcomes, rather than predictors, which are the focus of this thesis. In the case of empirical research on SOA that does include personality and/or demographic variables, they are predominantly those of the leader, rather than the subordinate, which is what this study will examine. By examining subordinate characteristics of self-other agreement, we are adding a newer perspective to the literature. It is possible that the degree of self-other agreement might differ depending on who the "self" is and who the "other" is, as well as their corresponding outcomes. Further delineating these differences provides more context for both researchers and practitioners to consider when comparing rating congruence between a variety of sources. Finally, the data to be used in this study were collected from several community mental health clinics (CMHCs) which at the time, were in the midst of an organizational initiative to

implement a relevant evidence-based practice (EBP). Thus, I offer the unique perspective of how SOA on a measure of citizenship behavior functions within the context of EBP implementation. The proposed thesis has the potential to provide insight into when and how organizational citizenship behavior can be useful for organizations with goals of improving the implementation of evidence-based practices. Especially for healthcare organizations, the use of evidence-based treatments, techniques, and therapies is vital for providing the most effective patient care, and thus this research can have implications downstream for patients and their health.

I will lay the foundation for the proposed study in a series of steps. First, I will review the literature on organizational citizenship behavior, including its original conception and influential findings. I will then provide an overview and background on the facet of organizational citizenship behavior to be studied in this thesis: implementation citizenship behavior. In order to do so, I will first define and review its parent construct of organizational citizenship behavior (OCB) and examine it within the context of SOA. I will also provide background on the development and conception of the implementation citizenship behavior scale. Finally, I will review the literature on each predictor within the context of the study, relying on relevant theoretical backgrounds. The main connecting theoretical background for all predictor variables is the concept of observability, which will be discussed in more detail in relevant sections.

### An Introduction to Organizational Citizenship Behavior

Within the past few decades, the field of industrial-organizational psychology has experienced an effort to make connections between behavior and the functioning of the workplace. More specifically, organizational citizenship behavior (OCB) has become an increasingly prevalent construct within the organizational behavior literature (Podsakoff et al.,

2009). OCB is defined as individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization (Organ, 1997). Katz (1964) originally put forth the ideas that ultimately lead to OCB by identifying the essential types of behavior for effective functioning of an organization, which included the prescribed, expected job requirements along with the more spontaneous, cooperative behavior. It was further emphasized that the highest functioning organizations do not rely solely on the pre-defined, prescriptive behaviors that are outlined by the traditional job description (Katz, 1964). Instead, these organizations function as a result of a variety of behaviors, both expected and unexpected. Behaviors that fall in the unexpected category include acts of cooperation, helpfulness, goodwill, or altruism, among others, and make up what we now call organizational citizenship behavior (Bateman et al., 1983). OCB accounts for the small, seemingly insignificant behaviors that ultimately make a large difference and applies them within the context of the workplace.

Over time, organizational citizenship behavior has been repeatedly established as an important precursor to a variety of both individual and organizational level outcomes. As a result, the performance of OCBs is generally viewed favorably by managers, especially when considering reward allocation and promotion decisions (Podsakoff et al., 2009). Managers likely view OCBs favorably as they are typically performed on the employee's own volition, thus serving as an important indicator of how motivated an employee might be outside of their standard, expected task performance (Shore et al., 1995). This concept has been empirically validated; OCB has been positively related to performance evaluations (Allen & Rush, 1998; MacKenzie et al., 1991; Werner, 1994) and reward recommendation decisions (Allen & Rush, 1998; Johnson et al., 2002). Also at the individual level, more negative outcomes such as

employee turnover intentions and actual turnover have been negatively associated with OCB (X.-P. Chen, 2005; X.-P. Chen et al., 1998; Mossholder et al., 2005). In a relatively recent meta-analysis, Podsakoff et al. (2009) confirmed many of these results by finding a positive relationship between OCB and individual-level outcomes such as employee performance and reward allocation decisions, as well as negative relationships between OCB and employee turnover intentions, actual turnover, and absenteeism.

Organizational citizenship behavior has also been shown to enhance organizational-level effectiveness. Employees who regularly engage in OCBs serve as sources of inspiration and information to their team members. For example, these employees might regularly assist newer employees in learning the procedures of the work environment. They likely speak up in meetings to voice concerns or suggestions to improve working conditions and therefore effectiveness. Additionally, the performance of OCBs might enhance the morale and cohesiveness of the work group, which can lead to higher productivity. Several empirical studies have tested these effects, establishing that the performance of OCBs is positively related to production quantity, efficiency, profitability, and cost reduction (Dunlop & Lee, 2004; Koys, 2001; Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994; Walz & Niehoff, 2000). Organizational citizenship behavior has also been positively linked to customer satisfaction (Yen & Niehoff, 2004). In their meta-analysis, Podsakoff and colleagues (2009) found positive relationships between OCB and productivity, efficiency, profitability, and customer satisfaction, in addition to negative relationships between OCB and both costs and unit-level turnover.

### Implementation Citizenship Behavior

Although employees can certainly perform OCBs that support the overall functioning of the work environment, they might also perform more specific OCBs to support specific strategic objectives that are relevant to their work duties. For example, in a profession where taking extra safety precautions is especially vital (i.e., first responders, electricians, contractors), an employee might be viewed more positively by their supervisor if they often go above and beyond to practice and encourage safety-conscious techniques. Thus, the use of a safety-focused OCB scale would be useful in this context. In response to its growing interest, more specific applications of organizational citizenship behavior have begun to be investigated, such as customer-focused OCB (Bienstock et al. 2003; Jung & Yoo, 2007) and safety OCB (Didla et al., 2009; Conchie & Donald, 2009).

To this same effect, Ehrhart and colleagues (2015) created the implementation citizenship behavior (ICB) scale to apply organizational citizenship behavior in the context of implementing evidence-based practices in the field of mental healthcare. The need for evidence-based practice implementation has been gaining traction across fields, but especially healthcare, for decades. As defined by Sackett and colleagues (1996), evidence-based practice is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. True and efficient EBP means using empirical and systematic research to inform clinical practice. Sackett and Rosenberg (1995) highlighted the disconnect between the empirical rigor of clinical trials and the extent to which their findings are applied on the frontlines of patient care. Unfortunately, this disconnect has persisted for years. While the presence of EBPs has gradually increased within large-scale, multi-level hospitals and healthcare systems, facilities in the public sector have repeatedly fallen to the wayside in this area (Aarons et al., 2011). When

it comes to community based mental healthcare, EBPs are less commonly used, demonstrating a research-practice gap that has serious implications for the populations served by these organizations. Although there has been a growing emphasis for EBP among funding agencies and policy makers in recent years, paired with an increase in the development of efficacious EBPs, reports have indicated that the tendency for these practices to be used in public health settings is still lacking (Aarons et al., 2014). This poses a problem not only in the large amount of funding, scientific resources, and labor-intensive investment being funneled into the development of EBPs, but also in that the populations that would most benefit from them are not being reached. That being said, a large body of research over the past several years has been dedicated to improving this disconnect between research and practice (Grol & Grimshaw, 1999; Aarons & Palinkas, 2007; Cullen & Adams, 2012). Thus, the development and validation of the ICBS represents an effort to integrate EBP implementation with the literature on organizational citizenship behavior, and to identify implementation-specific OCB as a way for frontline workers to go above and beyond to contribute to EBP implementation effectiveness.

Ehrhart et al. (2015) developed the ICBS in order to account for implementation-specific organizational behaviors that can influence the adoption and sustainment of EBPs in organizations. The implementation citizenship behavior scale (ICBS) allows researchers to empirically test the extent to which employees go above and beyond what is required in order to support the implementation of evidence-based practices (EBP) within their organization (Ehrhart et al., 2015). As previously implied, implementation citizenship behavior is defined as the discretionary behavior employees perform to support EBP implementation (Ehrhart et al., 2015). Examples of implementation citizenship behavior include demonstrating a commitment to EBP, supporting the use and integration of EBP into clinical care, and holding others in the



organization or team to the highest standards of EBP (Ehrhart et al., 2015). It is important to note that implementation citizenship behaviors differ from actual implementation behaviors or general use of evidence-based practice. In this study, implementation behaviors focus more specifically on the quality use of evidence-based practices (i.e., using the EBP with fidelity, completing the correct paperwork and methods, etc.). Implementation behaviors were not explicitly measured in this study. In contrast, implementation citizenship behaviors involve going above and beyond to *support* implementation. This study did not focus on how well the participants actually implemented the EBP, but instead measured the extent to which these employees supported that implementation effort through helping their coworkers and keeping informed on the subject. In line with the literature on OCB in general and its relationship with organizational outcomes (e.g., Podsakoff et al., 2009), having consistent and strong levels of implementation citizenship behavior throughout the organization should promote the effective implementation of evidence-based practices. Going above and beyond to support implementation efforts should help create an organizational environment where EBPs are supported, encouraged, and commonplace. Based on the relevance and importance of the adoption of evidence-based practices, paired with the common problem of rating discrepancies between self and other ratings of performance, this thesis offers a unique perspective of rating agreement within the context of EBP implementation.

### A Review of Self-Other Agreement on OCB

Because OCB is considered a facet of work performance, it has inherited the long-standing issue of rating discrepancy from the general performance appraisal literature. Historically, OCB has been measured using either self or other (supervisor or peer) ratings, chosen depending on the details of the particular study. As with most methods of measurement,

there are advantages and disadvantages to each source. For example, other-ratings are less likely to be biased or vulnerable to social desirability (Allen et al., 2000; Chan, 2009), which means self-ratings can be more prone to self-presentation biases. As a result, some researchers have even gone as far as to regard self-ratings, when considered on their own, as an unreliable measure of OCB (Organ & Ryan, 1995). However, other-ratings might be equally unreliable due to the possibility of a lack of opportunity to observe the full extent of an employee's OCB (Allen et al., 2000). Therefore, it is important to continue the examination into these rating source discrepancies in order to establish how and when ratings of OCB are most likely to be in agreement. The study of OCB rating discrepancy across sources is especially important in order to confirm whether our general understanding of OCB is consistent across sources (LePine et al., 2002). Studying rating agreement can also guide researchers in whether one type of rating source might be preferred to another.

Because the OCB literature is quite varied by rating source, research has emerged comparing self and other ratings of OCB. Early research on the topic by Allen et al. (2006) found that convergence between other raters (i.e., supervisors and coworkers) was higher than convergence between self and other ratings. However, in general, this study found very little consistency between self, coworker, and supervisor ratings. Yet the authors did find that reliability increases considerably when more raters are considered, providing support for the consideration of multiple ratings more consistently. In contrast, the results of a recent meta-analysis by Carpenter et al. (2014) on self and other reported OCB found that self and other ratings of OCB were moderately correlated, and even more so when antithetical items were not used and when agreement response scales were used. This particular finding is important because it implies that over-reporting in self-reports might not be as large of a concern for OCB as

originally expected. Additionally, this analysis established that self and supervisor ratings were significantly more in agreement than self and coworker ratings. Interestingly, ratings of OCB-O, or OCB directed at the organization, showed higher agreement between self and supervisors, whereas ratings of OCB-I, or OCB directed at other individuals, showed higher agreement between self and coworkers. This finding lends support to the idea that rating agreement might be related to the observability of OCB, which likely varies depending on the source of the other rating. These findings indicate the potential value in self-ratings of OCB, despite the large amount of skepticism on their reliability, and that self-supervisor rating comparisons are typically more congruent than self-coworker comparisons (Carpenter et al., 2014).

Overall, there has been empirical inconsistency regarding not only which OCB rating source is most accurate, but also whether agreement between sources is consistent and reliable enough for multi-source methods to be implemented confidently. This issue should be addressed considering the important individual and organizational implications of OCB. Therefore, the proposed study aims to provide further delineation of these common issues.

### An Introduction to Self-Other Agreement

Although the primary contribution of this thesis is to the literature on organizational citizenship behavior, there is also a secondary contribution to the literature on self-other agreement. This body of literature is vast and has most commonly been studied within the context of performance appraisal. It is important to note that although self-other agreement theory originated in response to the pressing issue of rating discrepancies in the performance appraisal process, it has since evolved to be applied to many different organizational contexts. This is due largely in part to the flexibility of the concept, as rating discrepancy is not an

observation exclusive to performance appraisal. For example, self-other agreement has been studied with regard to ratings of leadership and personality, among other variables (Fleenor et al., 2010). Self-other agreement, as originally described, is the degree of congruence or agreement between a leader's self-ratings and the ratings of others, typically coworkers, subordinates, or peers (Atwater & Yammarino, 1997; Fleenor et al., 2010).

### Rating Sources & Disagreement

A large section of the performance appraisal literature has been dedicated to determining the most appropriate source for performance ratings, whether it is employees themselves, their supervisors, or their peers. These results have been inconsistent at best (DeNisi & Murphy, 2017). A potential solution to this issue that has shown promise is the 360-feedback method, in which performance ratings are obtained from a variety of sources that work directly with the ratee, including the addition of self-ratings. This method provides a more well-rounded picture of the employee's performance and eliminates the potential of biased, singular ratings, resulting in the hope of a more reliable performance appraisal system. The 360-feedback method has gained significant popularity in recent decades in both research and practice. However, an alarming dilemma associated with this method is a consistent finding of weak correlations between self and other (i.e., subordinate, supervisor, coworker) performance ratings, as demonstrated by previous meta-analyses (Harris & Schaubroeck, 1988; Conway & Huffcutt, 1997; Heidemeier & Moser, 2009). Research has definitively established that although there is reason to believe that multi-source performance ratings can be useful, ratings often differ systematically between sources, which leaves the evaluation of actual performance unknown or up for interpretation (DeNisi & Murphy, 2017). Remarkably consistent in studies examining interrater reliability

estimates of performance is the finding that at least two raters are almost always in disagreement (Murphy et al., 2001). These findings are problematic for a number of practical reasons, the most pressing being the heavy weight performance appraisals are given in important promotional decisions, despite the likelihood that they are misrepresentative of actual performance. The present study hopes to establish more concrete conditions in which ratings might be consistent across sources.

Many questions have come up in recent years in response to the issue of rating discrepancy. What are the implications of rating disagreement on HR processes? What are the processes or conditions that affect rating (dis)agreement? What are the common organizational outcomes of rating disagreement? In addressing these questions, Atwater and Yammarino's (1997) model of self-other agreement is useful to describe the process by which rating disagreement happens, including potential influences and outcomes to consider, as described in more detail below.

### Self-Other Agreement Theory

Atwater and Yammarino's (1997) seminal paper on self-other agreement was groundbreaking for a number of reasons. The theory was the first to conceptualize rating (dis)agreement as a single construct. Atwater and Yammarino (1997) introduced a spectrum of organizational implications for different categories of rating agreement (i.e., overestimation, in-agreement (good), in-agreement (poor), underestimation), serving as useful information for both research and applied settings. Since its original conception, SOA theory has been used to address a number of questions regarding the performance appraisal process, providing clarity on rating discrepancy between sources within a multi-source feedback system. However, due to flexibility

of the concept, self-other agreement has been measured in many different ways. The wide variety of operational definitions is a limitation of the SOA literature, as it likely contributes to at least a portion of the discrepancies between findings and thus, an inability to establish concrete patterns. That being said, in order to establish a broad foundational background, this literature review covers studies using several variations of metrics to assess SOA.

A large portion of the interest in SOA has grown as a result of its apparent relationships with both self-awareness and leader effectiveness, concepts especially relevant to leadership development. At the time of publication, Atwater and Yammarino's (1997) primary goal was to establish potential implications of rating disagreement for organizations that use multi-source feedback systems. Thus, the majority of the SOA literature has focused on its outcomes, although there is a decent portion that examines predictors, as well. One theme that has consistently appeared in the SOA literature is the idea that agreement should be predicted by self-awareness, self-insight, and self-perception. Interest in SOA research can also be attributed to its proposed influence on individual and organizational outcomes (Fleenor et al., 2010). As far as individual outcomes, the results, though vast, are inconsistent. In one of the first studies predicting outcomes of SOA, Atwater and Yammarino (1992) found that differing levels of SOA (e.g., over-estimation, under-estimation, in agreement) moderated the relationship between leader behavior and performance, such that leaders in the "in-agreement" category had stronger correlations between leader behavior and performance. Similarly, other studies have established positive relationships between SOA (self-subordinate) and leader performance (Bass & Yammarino, 1991; Furnham & Stringfield; 1994). High-self ratings have been associated with poor assessment center performance, especially when paired with lower other- ratings (Atkins & Wood, 2002), and managerial derailment (McCall & Lombardo, 1983). In contrast, higher SOA

(self-subordinate) has been associated with higher promotability (Bass & Yammarino, 1991), realistic goal-setting (London & Smither, 1995), psychological adjustment (Kwan et al., 2008), and championing innovation climate and quality (Berson & Sosik, 2007). At the organizational level, higher agreement has been linked to subordinate job satisfaction and organizational commitment (Szell & Henderson, 1997). Additionally, higher discrepancy between leaders' self-ratings and followers' ratings of that leader's transformational leadership have been associated with more negative organizational culture (Aarons et al., 2017).

In response to the literature's heavy focus on outcomes of self-other agreement, this thesis exclusively focuses on its predictors. While there is a substantial body of empirical evidence to rely on in establishing factors that affect only self-ratings, there are few studies in existence that predict self-other rating congruence. Gender has been most commonly studied; both Brutus et al. (1999) and Vecchio and Anderson (2009) found that male leaders were more likely to overrate their effectiveness than females. In the same study, Brutus et al., (1999) also found that age and organizational level were both negatively related to SOA (self-subordinate) on leadership effectiveness. Ostroff et al. (2004) found that older leaders overrated their performance more than younger leaders. In conclusion, this thesis makes a contribution to the self-other agreement literature in that it adds to the small body of research on antecedents of self-other agreement.

### Observability

The remainder of this proposal will focus specifically on the predictor variables that will be included in the analyses, primarily viewed through the theoretical lens of observability. This thesis posits that certain predictors, either person-related or context-related, influence the

observability of a subordinate's implementation citizenship behavior, which in turn affects the level of rating agreement with their supervisor. In other words, the level of rating agreement depends on the observability of a subordinate's implementation citizenship behavior, which can be affected by a subordinate's personality, their demographic characteristics, or the contextual circumstances of the work environment. A recognized theme in the SOA literature is that observability of traits might be an important influencing factor of SOA (Funder & Dobroth, 1987, Watson et al., 2000). Additionally, de Vries et al. (2016) established that observability is an important predictor of SOA, such that higher observability is associated with higher SOA.

Although the literature has delved into the concept of observability to some extent, the concept is often defined one-dimensionally and leaves many gaps in how observability manifests within a work environment. For example, some citizenship behaviors might be observable directly, in which a supervisor physically sees a subordinate performing a behavior. Within the existing literature, observability is generally defined while keeping this direct manifestation in mind. However, the literature largely ignores the fact that the supervisor can learn about a subordinate's citizenship behaviors in less obvious ways than observing them directly, such as hearing about them from either the subordinate themselves or other coworkers. For example, a supervisor might observe their subordinate assisting a colleague in learning a specific EBP process, which would serve as an example of direct observation. Alternatively, a supervisor might learn about their subordinate's citizenship behavior indirectly, via a conversation with the subordinate or their coworkers in a meeting or even a more casual context. Both direct and indirect channels of observability provide information for the supervisor to base their ratings on. Thus, all the antecedents included in the proposed analysis will be presented as how they relate to direct and/or indirect observability of a subordinate's implementation citizenship behavior.



The level of observability can affect rating agreement, as we can assume that ratings are made based on the available information on the quantity and quality of a subordinate's citizenship behavior that the supervisor has. If citizenship behaviors are less observable, the supervisor has less information to base their rating on, and therefore might experience less rating agreement with the subordinate's self-ratings. Thus, the present study uses the mechanism of observability to theorize about the relationship between predictor variables (subordinate individual differences, demographic similarity between supervisor and subordinate, and contextual variables) and rating agreement on implementation citizenship behavior, such that predictor variables influence the likelihood of a subordinate's implementation citizenship behavior being either directly or indirectly observable to their supervisor, which affects the level of agreement between ratings.

#### Individual Difference Predictors

Although the majority of the self-other agreement literature has focused primarily on individual/organizational outcomes of SOA, rather than predictors, several studies have examined the individual profile of leaders that might be more likely to exhibit higher self-other agreement with their followers and colleagues. Conversely, a very small amount of literature has delved into the individual differences of the subordinate, especially in the case where the "self" in "self-other agreement" is the subordinate, rather than the supervisor. The proposed study includes two subordinate characteristics, proactive personality and organizational tenure, as predictors of self-other agreement with supervisors on implementation citizenship behavior.

## Proactive Personality as a Predictor of SOA

In the portion of research predicting some variation of SOA, some studies do include personality predictors (Fleenor et al., 2010). However, the majority of studies in this realm have most commonly predicted either self or other ratings individually, rather than agreement between the two. There is some literature that has established simple main effects of personality on varied self-ratings (Fleenor et al., 2010). For example, Furnham et al. (2005) found that personality is a better predictor of self-estimates of intelligence than actual measures of intelligence. Judge and colleagues (2006) found that extraversion, openness to experience, agreeableness, and conscientiousness were positively associated with self-ratings of leadership and that neuroticism was negatively associated with self-ratings of leadership. Positive relationships have also been found between extraversion and both self-estimated ability (Visser et al., 2008) and self-ratings of assessment center performance (Bell & Arthur, 2008). However, it is important to highlight that these personality effects are only consistent for self-ratings, and not necessarily other-ratings (Fleenor et al., 2010). Finally, there is one interesting finding to note in which empathy predicted congruence between self and other ratings; managers who had high self-ratings of empathy received similar other-ratings of empathy (Brutus et al., 1999).

Due to the lack of personality research in the SOA literature, this study hopes to provide clarity on the relationship between personality and rating congruence between self and supervisor. Specifically, this thesis examines subordinate proactive personality as a predictor of self-other agreement on implementation citizenship behavior through the theoretical lens of observability. The overarching idea is that subordinates who possess higher levels of certain personality traits, namely proactive personality, are more likely to have opportunity for both indirect and direct citizenship behavior observability by their supervisors, thus increasing the

likelihood of self-supervisor rating agreement. More proactive subordinates are afforded this wealth of opportunity due to the likelihood that they have higher quality relationships with their supervisors, resulting from their inclination to take personal initiative in their workplace environment.

Bateman and Crant (1993) first introduced the concept of a proactive component of organizational behavior to the literature, defining it as the extent to which employees take action to influence their environments. Employees high in proactive personality not only identify opportunities, but they wholeheartedly act upon them. They embrace challenges and often take initiative, experiencing enjoyment when they accomplish goals and bring about meaningful change to their organization (Liguori et al., 2012). Proactive personality is related to OCB in that it is behaviorally active; people high in proactive personality often go above and beyond to engage with their work environments. Several studies have established a relationship between proactive personality and a variety of positive individual and organizational outcomes, including career success (Seibert et al., 1999), entrepreneurship (Becherer & Maurer, 1999; Crant, 1995), job performance (Chan, 2006; Thompson, 2005), and team effectiveness (Becherer & Maurer, 1999). Proactive personality has also been associated with constructs within the realm of OCB. For example, Bakker and colleagues (2012) found that proactive employees were more likely to craft their jobs (i.e., increase job-related resources and challenges), which in turn lead to increased work engagement and colleague ratings of in-role performance. Additionally, proactive personality has been linked to participation in organizational improvement initiatives (Parker, 1998), and innovation (Seibert et al., 2001), two outcomes with direct relevance to the proposed study. Proactivity has also been associated with increased felt responsibility for organizational change (Fuller et al., 2006), as well as the tendency to exhaust all opportunities to exceed typical

job expectations (Thompson, 2005). Overall, there is significant conceptual overlap between proactive personality and OCB, which is a defining reason for inclusion in the proposed study.

While there has not been significant empirical research to date that distinctly establishes a relationship between proactive personality and observability, we can still make inferences on the relationship based on proactive personality's established relationship with related variables, namely LMX. The basic overview of LMX theory is that supervisors treat individual followers differently depending on a variety of individual and contextual variables, resulting in a spectrum of unique supervisor-subordinate dyads (Dansereau, et al., 1976). A substantial body of research has been dedicated to establishing the individual differences of both the subordinate and leader that might influence the quality of this relationship, including proactive personality. The relationship between proactive personality and LMX has been relatively well-supported by the literature. Proactive personality has been positively associated with LMX quality as a direct effect (Wijaya, 2019) and in meta-analytic findings (Fuller Jr. & Marler, 1998). Most commonly, LMX has been established as a mediator between proactive personality and several variables, such as job satisfaction and OCB (Li et al., 2010), voice behavior (Wijaya, 2019), and career success (Yang & Chau, 2015). Relatedly, Bergeron and colleagues (2013) found that the positive relationship between proactive personality and OCB was mediated by perceived role breadth, which is the extent to which employees view tasks to be within their role. Interestingly, Zhang and colleagues (2012) found that leader-follower dyads with more congruence in proactive personality displayed higher LMX quality, which led to higher job satisfaction. A core aspect of proactive personality is the active manipulation of one's environment in order to improve situational, procedural, and individual outcomes (Kim et al., 2009). By nature, many proactive behaviors are more social, outwardly, and more often displayed to coworkers and supervisors.

Thus, we can assume that proactive subordinates are more likely to have higher quality relationships with both their coworkers and supervisors due to their higher tendencies to be social, to take initiative, and to make the most out of their employment experience.

Because subordinates high in proactive personality have higher quality LMX relationships with their leaders (Fuller Jr. & Marler, 1998) they will have more opportunities to interact and share information with their supervisors, resulting in more frequent opportunity for direct observability of their implementation citizenship behavior by the supervisor, which will increase the likelihood of self-other rating agreement. Also, because highly proactive individuals are more social, helpful, outgoing, and engaging, the likelihood of their supervisors to observe them displaying implementation citizenship behavior directly increases. Finally, proactive employees are more likely to be involved and engaged with their coworkers, and so their supervisors are more likely to hear about their exhibited implementation citizenship behavior indirectly from coworkers, thus adding to the available information for ratings. Overall, we would expect that employees with a more proactive personality will exhibit more observable (directly or indirectly) citizenship behaviors. With more available information to make a rating, supervisor ratings will likely be more in agreement with subordinates' self-ratings, which should result in higher SOA.

**Hypothesis 1:** Subordinates with higher proactive personality will exhibit higher self-other rating agreement with their supervisors on a measure of implementation citizenship behavior.

## Organizational Tenure as a Predictor of SOA

The second individual difference variable included in the proposed study is the subordinate's organizational tenure, or the length of time they have worked at the organization. This inclusion stems from the idea that subordinates who have been working for the organization for a significant period of time have had more time to develop connections with coworkers and/or supervisors. As a result, these employees have the opportunity to generate a reputation within the organization regarding their typical work behavior. Supervisors might be able to make more congruent performance ratings of these tenured employees due to more available information on their general behavior. Even in the case where a supervisor does not work directly with the subordinate on a daily basis, we can infer that because the subordinate has a longer organizational tenure and has likely developed more personal relationships with their coworkers, the supervisor will have an easier time filling in the gaps than they would for a subordinate with a shorter tenure. Organizational tenure also presumably affects the potential observability of that subordinate's implementation citizenship behavior. Subordinates with higher tenure, as previously mentioned, have the advantage of more time spent at the organization and thus, an increase of relationships and interactions with their coworkers and superiors. More opportunity for the crafting of these relationships might influence the likelihood that coworkers will discuss that subordinate's citizenship behavior with each other or their supervisor. Overall, this idea most strongly supports an increase in indirect observability of subordinate implementation citizenship behavior for longer tenured employees. However, it is also possible that longer tenured employees will have more opportunities to showcase directly observable implementation citizenship behavior as well, depending on the corresponding tenure of their supervisor.

Although research examining organizational tenure in relation to performance rating SOA was not identified in my literature review, we can draw inferences from the existing literature linking organizational tenure to related outcomes. Organizational tenure has been associated with more favorable supervisor ratings (Vecchio, 1998), greater in-role and citizenship performance (Ng & Feldman, 2010), and supervisor/subordinate LMX agreement (Kacmar et al., 2009). Relatedly, Sin et al. (2009) found that supervisor-subordinate dyads with longer relationship tenure exhibited increased agreement in LMX relationship judgements. Thus, we can propose that subordinates who have longer organizational tenure will exhibit higher SOA with their supervisors, due to the increased opportunity for indirect and potentially direct observability of implementation citizenship behavior. This increased potential for observability will provide supervisors with more information to make ratings, which would likely lead to more agreement with subordinate self-ratings.

**Hypothesis 2:** Subordinates with longer organizational tenure will exhibit higher self-other rating agreement with their supervisors on a measure of implementation citizenship behavior.

#### Demographic Similarity and SOA

In order to cover a wide spectrum of potential influences of SOA, the present study also included the demographic characteristics of gender and race. There is a considerable amount of research that has examined the simple main effects of employee demographic characteristics on selection/promotion outcomes (Blau, 1985; Parsons & Liden, 1984; Steckler & Rosenthal, 1985). Some studies have suggested that men receive higher ratings than women (Cohen et al., 1978), while others have stated that women are favored (Abramson et al., 1977; Pulakos & Wexley,

1983). Yet, not only has that research failed to establish a concrete pattern, but it also often fails to take account for the potential influence of employer demographics and their interaction with employee demographics. Previous research has suggested that subordinate race and/or gender can impact the ratings they receive, even more so when taking the race and/or gender of their supervisor into account. This concept of demographic similarity has been heavily studied in a variety of capacities. Although limited research has examined the direct relationship between demographic similarity and SOA specifically, there are studies to support the notion that demographic similarity can influence other job-related outcomes, such as increased turnover and performance (O'Reilly et al. 1989, Fenelon & Margargee 1971, Jackson 1991).

The present study draws from both the similarity-attraction paradigm (Byrne, 1971), and the previously mentioned concept of observability to predict a relationship between subordinate demographics (gender, race) and the level of SOA on the implementation citizenship behavior scale with their supervisors. However, in contrast to the two prior hypotheses in this study, the next two hypotheses also consider demographic traits of the supervisor in predicting SOA. The similarity-attraction paradigm maintains that individuals with certain characteristics in common (i.e., gender and/or race) are more likely to elicit positive reactions to each other, form more positive relationships, and experience more interpersonal attraction and liking (Byrne, 1971). In accordance with the similarity-attraction paradigm, supervisor-subordinate dyads of the same demographic characteristics likely spend more time together and are more inclined to know each other more personally. Subordinates might have more opportunities to showcase their implementation citizenship behavior to their supervisors due to this likelihood of increased quality time. Supervisors might check in with their well-liked subordinates more often throughout the day, thus creating more opportunities to observe implementation citizenship



behavior directly. An additional consideration is the increased likelihood of indirectly observable implementation citizenship behavior. Supervisor-subordinate dyads with higher interpersonal liking might meet more throughout the day (either formally or informally) to discuss work. Subordinates who have these positive relationships with their supervisors might feel more comfortable sharing the extent of the implementation citizenship behavior. Additionally, other coworkers who are aware of a particularly close supervisor-subordinate dyad might feel more comfortable sharing information regarding that subordinate's behavior with the supervisor, providing another opportunity for indirect observation.

Overall, in consideration of the theoretical context of the similarity-attraction paradigm and observability, it is assumed that supervisor-subordinate dyads of the same demographic characteristics will be closer and better acquainted with each other, which will increase the observability (direct and/or indirect) of the subordinate's implementation citizenship behavior. As a result, we can expect to see higher levels of rating agreement for supervisor-subordinate dyads that are demographically similar. Although the literature on demographic similarity's effect on self-other agreement is very limited, relevant conclusions can be made regarding the relationship between demographic similarity and related variables. Within the organizational psychology literature, many studies have established a relationship between supervisor-subordinate demographic similarity and leader-member exchange (LMX) quality, such that dyads of the same gender and/or race experience higher quality LMX relationships (Turban & Jones, 1998; Wayne et al., 1997; Pelled & Xin, 2000; Varma & Stroh, 2001; Green et al. 1996; Bhal et al., 2007). In a related vein, some research has established a relationship between demographic similarity and subordinate liking (Turban & Jones, 1998; Wayne et al., 1997). Higher LMX quality implies a more personal relationship in which the supervisor has a more

comprehensive understanding of their subordinate's typical behavior. These dyads likely spend more time together and simply like each other more than the average supervisor-subordinate dyad.

While a large portion of the literature has studied more general demographic similarity, other studies have chosen to separate the concept more specifically (i.e., gender or race similarity). For example, gender similarity has been consistently established as a predictor of many outcomes related to SOA, notably LMX quality. Several studies have found a significant relationship between gender similarity and general LMX quality (Green et al., 1996; Bhal et al., 2007; Varma & Stroh, 2001, Pelled & Xin, 2000), such that dyads of the same gender experience higher quality LMX. Duchon and colleagues (1986) established that subordinates were more likely to be considered part of the "in-group" when they had the same gender as their supervisor, and the opposite effect for subordinates who did not have the same gender as their supervisor. Relatedly, Varma & Stroh (2001) found that both male and female supervisors give higher ratings to members of the same gender. Additionally, Bhal and colleagues (2007) found that gender similarity was associated with higher affect in a leader-member dyad. Overall, there is a substantial amount of literature to suggest that gender similarity positively influences supervisor-subordinate dyads, such that these dyads might have higher quality relationships and more positive affect towards each other. Based on this information, we can infer that gender-similar dyads will spend more time together during the workday, thus increasing the opportunity for direct observation of implementation citizenship behavior. The opportunity of indirect observation of implementation citizenship behavior might also be heightened for gender-similar dyads, as a higher quality relationship implies that other coworkers might feel more comfortable coming forward to share information with the supervisor regarding that subordinate's behavior,

equipped with the knowledge that the supervisor knows them more personally. In turn, with more opportunities to observe subordinate implementation citizenship behavior, supervisor ratings are more likely to reflect those of the subordinate's self-ratings.

**Hypothesis 3:** Supervisor-subordinates of the same gender will exhibit higher levels of self-other agreement on ratings of subordinate implementation citizenship behavior.

The literature on racial similarity, considered individually, is less developed than that of gender similarity. However, because of the promising findings of gender similarity's effect on supervisor-subordinate dyads, this thesis also includes racial similarity, as the construct is conceptually similar. There is some research that has established a potential exaggeration of ratings in dyads of the same race (Caligiuri & Day, 2000; Tsui & O'Reilly, 1989; Kraiger & Ford, 1985). In a related vein, some research has focused on racial similarity effects on other aspects of occupational assessment. For example, Goldberg (2005) found significant race similarity effects for white recruiters on overall interview assessments and offer decisions. There has also been some empirical support for the effects of racial similarity on LMX, though the findings have been limited in scope and quantity. In a study by Brouer and colleagues (2009), it was found that subordinate political skill moderated the relationship between racial similarity with supervisor and LMX, such that the otherwise negative relationship between racial dissimilarity and LMX was ameliorated by subordinates higher in political skill. The authors also found that supervisor-subordinate dyads who were racially similar had higher LMX quality, regardless of subordinate political skill (Brouer et al., 2009). Related to the present study, another study found that OCB was more positively related to LMX in leader-member dyads that were ethnically similar (Waismel-Manor et al., 2010).

Although the literature on racial similarity outcomes is somewhat limited, the topic still warrants further investigation due to its importance and demonstrated relationships to influential organizational constructs. In order to further parse out these observed differences, I chose to include supervisor-subordinate racial similarity in my analyses as a potential predictor of SOA. In the same way that the previous variables were hypothesized, we can infer that supervisor-subordinate dyads of the same race will have higher quality relationships, which will increase the potential for observability of subordinate implementation citizenship behavior. Thus, we can expect that supervisor ratings will be more congruent with their subordinate's self-ratings, due to the increase in available information on their exhibited behavior.

**Hypothesis 4:** Supervisor-subordinates of the same race will exhibit higher self-other agreement on ratings of subordinate implementation citizenship behavior.

#### Contextual Predictors of SOA

The final category of predictors included in the present study is contextual predictors. In addition to individual characteristics, the organizational environment and day-to-day processes might influence SOA. In this thesis, I specifically focus on two contextual predictors: span of control and communication frequency.

#### Span of Control as a Predictor of SOA

A small portion of the SOA literature has included work group size, or span of control, as a predictor variable. Span of control is defined as the total number of employees being supervised by a manager (Holm-Petersen et al., 2016; Schyns et al., 2012). Although research on the specific relationship between span of control and SOA is limited, there is a significant

amount examining related outcomes of varying leader spans of control. In general, as the leader span of control increases, work-related outcomes seem to trend more negatively.

Considering the empirical relationship between larger span of control and negative work outcomes, we can make inferences on how SOA might be affected. In general, we can assume that developing and maintaining high quality personal relationships with every subordinate requires time, effort and resources. In larger work groups, these relationships become more difficult to maintain, as the leader's time and resources are divided into smaller portions dedicated to each subordinate. Further, we can make inferences on how larger spans of control might affect the observability of subordinate implementation citizenship behavior. Leaders who are attempting to manage larger groups of subordinates won't have nearly as much opportunity to observe each individual subordinate in their day-to-day work environment. These leaders are likely juggling larger amounts of information regarding each of their subordinates and what they typically do, and therefore might not be able to reasonably and accurately recall this information when making ratings. A compounding factor is the presumed lack of time to dedicate to meeting individually with subordinates, which further hinders the opportunity to observe implementation citizenship behavior indirectly, or to hear about it from subordinates and/or their coworkers. Because leaders of larger groups might have very limited time, if any, to spend with or talk to individual subordinates, we can infer that their performance ratings will likely be less similar to subordinates, due to a lack of information to make ratings with.

McCutcheon and colleagues (2008) found that larger spans of control not only hindered the positive effects of both transformational and transactional leadership on job satisfaction but also increased the negative effects of laissez-faire leadership styles on job satisfaction. Similarly, Thiel and colleagues (2018) found that the benefits of ethical leadership on performance, OCB,

and reduced production deviance via LMX were significantly weakened by larger spans of control. Larger spans of control have been related to diminished effectiveness of leading by example, larger discrepancies between leader and follower incentives, (Komai & Grossman, 2009), decreased self-consciousness (Diener et al., 1080), and lower subordinate loyalty (Schyns et al., 2012). The literature has also observed a negative relationship between span of control and LMX quality (Green et al., 1983; Green et al., 1996; Cogliser & Schriesheim, 2000; Martinko et al., 2007; Schriesheim et al., 2000; Schyns et al., 2005). As previously noted, supervisor-subordinate dyads with lower quality LMX are less likely to spend time together, which might exacerbate the already established issues caused by larger supervisor span of control. Thus, in a similar vein to what we've established about prior predictor variables, we can make the same inference: lower LMX quality as a result of larger supervisor span of control will likely decrease the observability of subordinate's implementation citizenship behavior. This empirical pattern adds support to the predicted relationship between supervisor span of control and self-other agreement on implementation citizenship behavior; supervisors who are managing larger work groups will have less opportunity to both directly and indirectly observe their subordinates' implementation citizenship behavior, which will limit their ability to make ratings that are more congruent to their subordinate's self-ratings. Thus, subordinates that are part of larger work groups will experience lower levels of self-other agreement.

**Hypothesis 5:** Subordinates that are part of larger work groups will exhibit lower self-other rating agreement with their supervisors on a measure of implementation citizenship behavior.

## Communication Frequency as a Predictor of SOA

The final predictor variable included in the proposed study is the frequency of communication or meetings between supervisors and subordinates. In general, we can assume that increasing the frequency of contact between supervisor and subordinate will ensure that both parties are on the same page as far as subordinate citizenship behaviors are concerned. Although there is the possibility that subordinates might exaggerate their citizenship behavior performance when discussing it with their supervisor directly, we would still expect higher levels of rating agreement, considering that both parties will have the same information regarding the subordinate's performance. In reference to our main theoretical framework of observability, we can also posit that subordinates who communicate with their supervisors more frequently open up more opportunity to inform their supervisors of their behavior, thus making their implementation citizenship behavior more indirectly observable. Even in the case where supervisors lack opportunity to directly observe their subordinates in their daily work environment, increased communication frequency through meetings or even casual conversations increases the likelihood of gaining valuable information for supervisors to make a rating. In conclusion, it is hypothesized that implementation citizenship behavior will be more indirectly observable for subordinates who communicate more frequently with their supervisors. As a result, supervisors will have more quality information to base their ratings on and will rate more in agreement with subordinate self-ratings.

The variable of communication frequency has recently gained traction in the LMX literature, generally as a moderator variable, in order to establish concrete parameters in which certain LMX relationships are more likely. Communication frequency between leaders and followers has been a common circumstantial variable used to further define the established

relationship between LMX quality and work outcomes. As a result of this recent interest, communication frequency was included as an independent variable in the present study. Previous research has highlighted the positives of increased communication frequency between supervisor and subordinate; higher communication frequency can lead to increased reaped benefits of quality conversations, such as lowered perception of role stressors and lower role ambiguity (Jian & Dalisay, 2018). This particular finding is especially pertinent to the current study, as role ambiguity and stressors are related to the performance of citizenship behaviors, such that a subordinate might not perform them due to role stress or general unawareness that they are expected. Communication frequency has also been linked to higher quality LMX relationships; Salvaggio and Kent (2015) found significant effects of communication frequency on all four LMX sub-factors (affect, loyalty, professional respect, and contribution), as well as a significant moderating effect of communication frequency on the relationship between charismatic leadership and all four LMX sub-factors. Within the context of the proposed study, the variable of communication frequency will be measured by meeting frequency between subordinate and supervisor. Therefore, I propose that subordinates who meet more frequently and therefore have higher communication frequency with their supervisor will exhibit higher SOA.

**Hypothesis 6:** Subordinates who communicate more frequently with their supervisors will exhibit higher self-other rating agreement with their supervisors on a measure of implementation citizenship behavior.



## CHAPTER TWO: METHODOLOGY

### Sample and Procedure

This study utilized archival data from a large scale, multiple cohort, cluster randomized trial that took place over the span of three years (one year each for three cohorts) beginning in early 2017. The trial's primary goal was to test the effectiveness of a leadership intervention (Leadership and Organizational Change for Implementation, or LOCI) designed specifically to promote organizational strategies to support a climate for EBP implementation. The LOCI intervention included leadership training for supervisors, leadership coaching, 360-degree assessments, and strategic planning with all levels of management regarding best methods to support the development of a positive EBP implementation climate for all staff (Aarons et al., 2017). In conjunction with the LOCI intervention, a relevant evidence-based practice, motivational interviewing, was implemented in order to examine the effects of the LOCI intervention on implementation of an EBP. Participants included agency executives, work group leaders, and treatment staff from 60 substance abuse use disorder treatment programs in California and Arizona, USA. Each cohort lasted one year and ran consecutively across the study. Within each cohort, work groups (i.e., substance abuse programs) were randomized to either a LOCI condition, in which work group leaders received the LOCI training, or a webinar control condition, in which work group leaders received a standard leadership webinar training.

For the purpose of this study, data were utilized from only work group leaders and treatment staff across all three cohorts. Data was collected electronically via web surveys, administered using Qualtrics. Participants were compensated with a \$25 electronic gift card via email for completing each survey. The variables of interest were collected during the first two of five total time points, spaced four months apart. At baseline, data for subordinate proactive

personality was collected. At timepoint 2, subordinate race, organizational tenure, communication frequency, supervisor race, subordinate self-ratings of the implementation citizenship behavior scale, and supervisor ratings of each subordinate's implementation citizenship behavior were collected. Span of control was obtained from timepoint 2, as it is the same timepoint where the implementation citizenship behavior scale was obtained.

The final sample utilized data from 400 providers across 70 supervisors. Some supervisors in the sample came from the same program, which explains why there are more supervisors than programs (i.e., 70 supervisors across 60 programs). The supervisor sample was primarily (58.2%) White, with 29.9% identifying as Black, 7.5% identifying as other, 3.0% identifying as Asian, and 1.5% identifying as more than one race. The provider sample was primarily (64.8%) White, with 17.3% identifying as Black, 7.2% identifying as other, 4.5% identifying as American Indian/Alaska Native, 4.3% identifying as more than one race, and 1.9% identifying as Asian. The supervisor sample was 74.6% female, while the provider sample was 67.2% female.

## Measures

### Demographics

A range of demographic variables were collected for all participants, including age, sex, education level, professional status (e.g., intern vs. professional) and organizational tenure. Organizational tenure was measured with one item that prompted participants to refer to the time they had been working at their organization. Both supervisors and subordinates were asked to indicate their race using a single question with several options (American Indian/Alaska native, Asian, Black, Native Hawaiian/other Pacific Islander, White, more than one race, and other).

This race item was used to measure demographic similarity in the current study.

### Proactive Personality

The measure for subordinate proactive personality was adapted from Bateman and Crant's (1993) proactive personality scale. Respondents were asked to rate the extent to which each item reflected their proactive personality using a 7-point scale ranging from *Strongly disagree* (1) to *Strongly agree* (7). The scale included 10 items, including "I am constantly on the lookout for new ways to improve my life" and "Nothing is more exciting than seeing my ideas turn into reality." The Cronbach alpha for this scale was .89.

### Span of Control

Because there wasn't a specific item that prompted either supervisor or subordinate to directly indicate the number of people in their work group, span of control was obtained from study records. Specifically, because each supervisor provided responses for the implementation citizenship behavior scale for each of their corresponding subordinates, the number of their responses they provided was used to indicate the number of employees in the work group.

### Communication Frequency

Communication frequency was measured with one item that prompted subordinates to indicate how often they meet with their supervisor individually. Response options ranged from *Never* (0) to *More than once a week* (4).

## Implementation Citizenship Behavior

Implementation citizenship behavior was measured with the implementation citizenship behavior scale (ICBS), developed by Ehrhart and colleagues (2015). Subordinates completed this measure in reference to their own behavior, while supervisors completed this measure in reference to each of their subordinates' behavior. The scale was adapted from an existing measure of safety citizenship behavior (Hofmann et al., 2003) The ICBS consists of six total items measuring two distinct subscales: helping others and keeping informed. The items prompt participants to indicate the extent to which they go beyond minimum requirements to support successful EBP implementation. Each subscale has three items that are scored on a 5-point scale ranging from *Not at all* (0) to *Frequently, if not always* (4). An example of an item on the "helping others" subscale is "assist others to make sure they implement motivational interviewing properly" while an example of an item on the "keeping informed" subscale is "keep up with the latest news regarding motivational interviewing." For the purposes of this study, only the overall scale scores for ICB were used, rather than the individual subscale scores. Cronbach alphas for the supervisor and subordinate ICBS were .97 and .91, respectively.

### Analysis

The statistical procedure utilized for this study, the Directional and Nondirectional (DNDD) framework, was only recently published (Bednall & Zhang, 2020) and thus is relatively new to the literature. This approach is one of the first to model the antecedents of incongruence between two dependent variables. The approach was developed in response to the limitations of prior methods to measure predicted incongruence between outcome variables. In the DNDD

approach, incongruence between two outcome variables is conceptualized as two orthogonal components representing directional and nondirectional difference (Bednall & Zhang, 2020).

The authors define directional difference as a systematic positive or negative difference in the levels of two sets of matched observations, and nondirectional difference as the remaining inequality between the two outcome variables after the predicted directional difference has been accounted for (Bednall & Zhang, 2020). The directional difference is operationalized as the arithmetic difference between the values of two ratings. In the context of this thesis, the directional difference is the difference between  $Y_1$  (subordinate rating of implementation citizenship behavior) and  $Y_2$  (supervisor rating of implementation citizenship behavior) as a function of  $X$  (e.g., subordinate proactive personality, demographic similarity, etc.). The nondirectional difference is comprised of both shared and unique variability between the outcome variables (Bednall & Zhang, 2020). In other words, the nondirectional difference represents the remaining inequality between two observations after the directional difference has been accounted for. The non-directional difference is operationalized as the absolute difference between the disturbances of the two observations ( $Y_1$  and  $Y_2$ ).

The DNDD framework consists of three distinct steps, with each building upon each other. In the first step, the directional difference component was calculated. Specifically, the dependent variables,  $Y_1$  (subordinate self-ratings) and  $Y_2$  (supervisor ratings), were regressed onto the predictor variables, and the directional difference of the intercept and slope were calculated as non-model parameters. Recall that the predictor variables were subordinate proactive personality, subordinate organizational tenure, demographic similarity between subordinate and supervisor, meeting frequency, and work group size. In step 2, the non-directional difference component was calculated using the disturbances from step 1 to analyze

the effects of predictor variables. These values were saved automatically by MPlus. The disturbances were then transformed into variables representing total variability for the subordinate, total variability for the supervisor, and shared variability between the two. Each of these three components were then regressed onto each predictor variable. In the final step, the unique variability associated with  $Y_1$  and  $Y_2$  was calculated, representing the rating fluctuations that occur only in  $Y_1$  or  $Y_2$ .

Though all three steps of the DNDD are necessary in order to obtain complete results, this study will rely solely on the directional differences for hypothesis testing. A significant and positive directional difference coefficient would indicate an increase in agreement between supervisor and subordinate ratings of ICB as the specified predictor increases.

### CHAPTER THREE: RESULTS

The correlations among the study variables are shown in Table 1. Significant correlations were found between meeting frequency and both supervisor ( $r = .17, p < .001$ ) and subordinate ratings of ICB ( $r = .24, p < .001$ ). Additionally, gender similarity was significantly associated with race similarity ( $r = .17, p < .001$ ) and work group size ( $r = -0.16, p < .001$ ).

*Table 1. Means, Standard Deviations, Variable Intercorrelations and Scale Reliabilities*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Subordinate proactive Personality	2.85	.59	(.89)							
2. Subordinate Tenure	36.95	53.14	-.01	-						
3. Race Similarity	.53	.50	-.01	.08	-					
4. Gender Similarity	.89	.50	.08	.08	.17**	-				
5. Workgroup size	7.01	3.32	-.03	-.11	-.07	-.16**	-			
6. Meeting Frequency	2.53	1.38	-.08	.10	-.08	-.07	.00	-		
7. ICBS (Supervisor Rating)	1.76	1.16	-.06	-.10	.08	.05	-.04	.17*	(.97)	
8. ICBS (Subordinate Rating)	1.76	1.01	-.10	.07	.03	-.00	.03	.24**	.01	(.91)

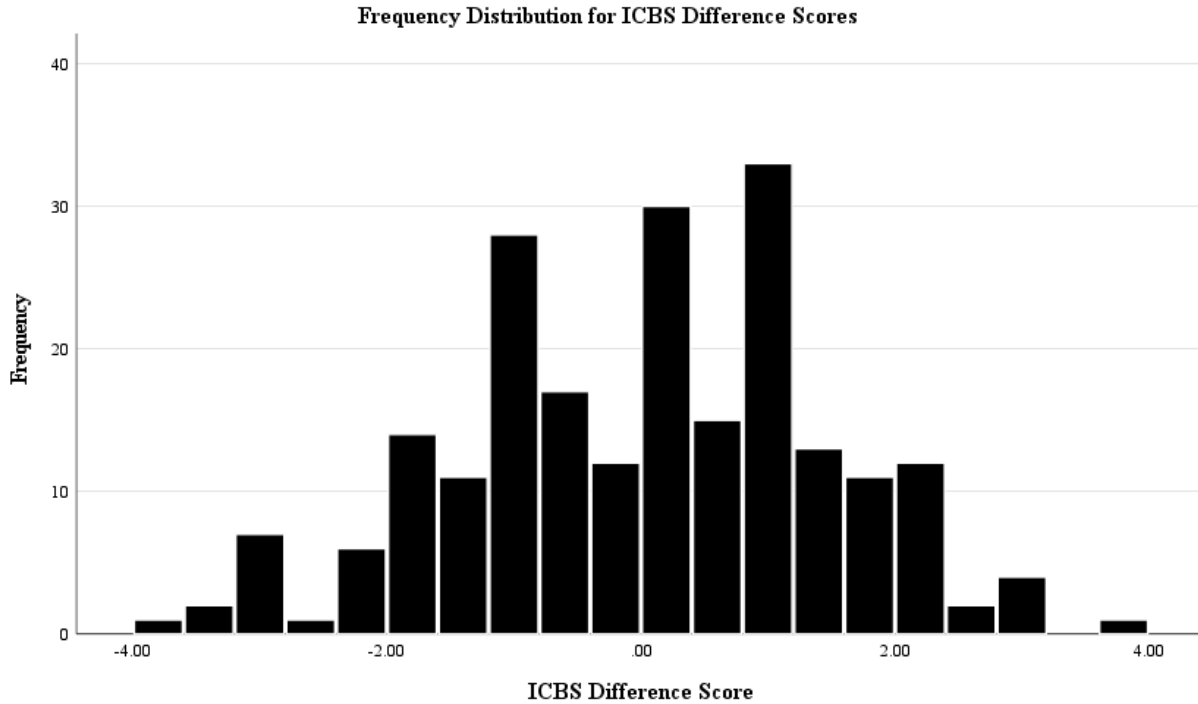
\* $p < .05$ , \*\* $p < .01$ ,

Note: Similarity coded as 0=Dissimilar, 1=Similar

The supervisor ICBS scores for subordinates ranged from 0 to 4, with an average of 1.76 ( $SD = 1.16$ ). The subordinate self ICBS scores ranged from 0 to 4 with an average of 1.76 ( $SD = 1.01$ ). Additionally, difference scores were calculated in order to examine the average difference between supervisor and subordinate ICBS scores. Difference scores were calculated by subtracting the subordinate ICBS scores from the supervisor ICBS scores. The average difference between supervisor and subordinate scores was .01. The absolute value of the difference scores ranged from 0 to 4. In 52.7% of the cases, the supervisor score was higher than the subordinate scores, and in 43.6% of the cases, the subordinate score was higher than the supervisor score (2.3% were exactly the same). In most cases the scores were within a point of

each other; 26.8% were 0.5 points or less and 30% were between 0.5 and 1.0 points. Figure 1 shows a frequency distribution for ICBS difference scores.

Figure 1. ICBS Difference Scores.



In order to test all six hypotheses, the DNDD analysis was employed once for each hypothesis (Bednall & Zhang, 2020). The results for the DNDD analyses are provided in Table 2. The results indicated that the directional difference between subordinate and supervisor ratings of ICB was nonsignificant as subordinate proactive personality increased ( $B=.308$ ,  $SE=.18$ ,  $p>.05$ ). Thus, Hypothesis 1 was not supported.

For subordinate organizational tenure, the directional difference between subordinate and supervisor ratings of ICB was nonsignificant as subordinate tenure increased ( $B=.003$ ,  $SE=.002$ ,  $p>.05$ ). Thus, Hypothesis 2 was not supported.

For gender similarity, the directional difference between subordinate and supervisor



ratings of ICB was nonsignificant for dyads of the same gender, ( $B=-.14$ ,  $SE=.19$ ,  $p>.05$ ). Thus, Hypothesis 3 was not supported.

For racial similarity, the directional difference between subordinate and supervisor ratings of ICB was nonsignificant for dyads of the same race, ( $B=.006$ ,  $SE=.20$ ,  $p>.05$ ). Thus, Hypothesis 4 was not supported.

For span of control, the directional difference between supervisor and subordinate ratings of ICB was nonsignificant for larger work groups, ( $B=.007$ ,  $SE=.03$ ,  $p>.05$ ). Thus, Hypothesis 5 was not supported.

Finally, for communication frequency, the directional difference between supervisor and subordinate ratings of ICB was nonsignificant for dyads that met more frequently, ( $B=.007$ ,  $SE=.07$ ,  $p>.05$ ). Thus, Hypothesis 6 was not supported.

Table 2. DNDD Results

Variable	Step 1: Directional Difference			Step 2: Nondirectional difference (total and shared variability)			Step 3: Nondirectional difference (unique variability)		
	Subordinate ICB	Supervisor ICB	Directional difference	Total variability (subordinate ICB)	Shared variability	Total variability (supervisor ICB)	Squared nondirectional difference	Unique variability (subordinate ICB)	Unique variability (supervisor ICB)
Constant	1.23 (.35)**	2.17 (.41)**	-.94 (.51)	-.33 (.39)	.66 (.4)	1.27 (.49)**	-.36 (.99)	-.9 (.39)*	.70 (.49)
Subordinate Proactive Personality	.19 (.12)	-.12 (.14)	.31 (.18)	.48 (.14)**	-.18 (.14)	-.002 (.16)	.83 (.36)*	.62 (.14)**	.15 (.17)
Constant	1.78 (.10)**	1.76 (.16)**	.03 (.15)	.93 (.13)**	.01 (.13)	1.32 (.15)**	2.23 (.288)**	.92 (.13)**	1.31 (.15)**
Gender Similarity	-.02 (.13)	.12 (.15)	-.14 (.19)	.19 (.16)	.16 (.16)	-.06 (.20)	-.18 (.38)	.03 (.16)	-.21 (.20)
Constant	1.67 (.1)**	1.73 (.11)**	-.06 (.14)	1.04 (.19)**	.21 (.14)	1.38 (.15)**	2.00 (.26)**	.83 (.19)**	1.17 (.15)**
Race Similarity	.18 (.13)	.18 (.16)	.01 (.2)	.04 (.17)	-.12 (.17)	-.06 (.22)	.22 (.37)	.16 (.17)	.06 (.22)
Constant	1.79 (.15)**	1.84 (.17)**	-.05 (.22)	.98 (.21)**	.43 (.19)*	1.03 (.19)**	1.15 (.47)*	.65 (.20)**	.73 (.2)**
Group size	-.01 (.02)	-.01 (.02)	.01 (.03)	.01 (.03)	.04 (.03)	.04 (.03)	.14 (.07)	.03 (.03)	.06 (.03)*
Constant	1.73 (.08)**	1.89 (.09)**	-.17 (.12)	-16.06 (3.40)**	28.41 (5.31)**	-45.35 (8.3)**	-118.23 (22.25)**	-12.64 (.27)**	-42.71 (7.60)**
Subordinate tenure	.00 (.00)	-.002 (.00)	.00 (.00)	.81 (.11)**	-1.37 (.17)**	2.31 (.27)**	5.87 (.72)**	-.38 (.09)**	1.13 (.25)**
Constant	1.40 (.13)**	1.48 (.16)**	-.08 (.20)	.64 (.13)**	-.11 (.12)	.91 (.18)**	1.77 (.32)**	.61 (.13)**	.88 (.18)**
Meeting Frequency	.15 (.05)**	.15 (.06)**	.01 (.07)	.13 (.05)*	.07 (.05)	.13 (.07)*	.13 (.13)	.10 (.05)*	.11 (.07)

\* $p < .05$ , \*\* $p < .001$

### Supplemental Analyses

Though the results did not provide support for the hypotheses, there are a number of significant findings that are worth noting. First, meeting frequency was significantly related to both subordinate ( $B=.15$ ,  $SE=.05$ ,  $p<.001$ ) and supervisor ratings ( $B=.147$ ,  $SE=.06$ ,  $p<.001$ ) of ICB. Therefore, although meeting more frequently has a positive influence on ratings, the difference between those ratings did not significantly change. Another interesting finding is the significant, negative shared variability estimate for subordinate tenure ( $B=-1.37$ ,  $SE=.17$ ,  $p<.001$ ). In the DNDD, a negative shared variability estimate implies perfect inconsistency between  $Y_1$  and  $Y_2$ . In other words, the ratings are becoming mirror opposites as a function of the predictor. In the context of this study, this significant finding implies that as subordinate tenure increases, supervisor and subordinate ratings begin to become opposites of each other. Finally, the DNDD method provides estimates for the unique variability, which refers to the fluctuations in only supervisor or subordinate ratings (Bednall & Zhang, 2020). The results showed that unique variability in subordinate ICB ratings significantly increased at higher levels of subordinate proactive personality ( $B = .62$ ,  $SE = .14$   $p<.001$ ) and meeting frequency ( $B = .10$ ,  $SE = .05$ ,  $p<.05$ ). In larger workgroups, unique variability in supervisor ratings significantly increased ( $B = .06$ ,  $SE = .03$ ,  $p<.001$ ). Finally, at higher subordinate tenure, unique variability for supervisor ratings significantly increased ( $B = 1.13$ ,  $SE = .25$ ,  $p<.001$ ) and unique variability for subordinate ratings decreased ( $B = -.38$ ,  $SE = .09$ ,  $p<.001$ ). Though these supplemental findings are interesting, they were not hypothesized in the current study, and further theorizing is needed in order to fully examine their implications.

## CHAPTER FOUR: DISCUSSION

The overall goal of this study was to examine the conditions under which self and supervisor ratings of implementation citizenship behavior are more or less in agreement. It was expected that in dyads where the subordinate is more proactive, has worked for the organization longer, shares the same gender and race with their supervisor, meets more frequently with their supervisor, and is part of a smaller workgroup, self and supervisor ratings would be more in agreement. These predictions were conceptualized using the theoretical context of observability, such that the subordinate's citizenship behavior was expected to be more or less observable to the supervisor as a result of the above-mentioned predictor variables, which was then expected to affect the degree to which the ratings were similar to each other.

None of the study hypotheses were supported. Although emphasis is often put mostly on significant findings, it is equally as important to inquire why other results were nonsignificant. For example, this study theorized that proactive people would more actively perform implementation citizenship behaviors, thus creating more opportunities for direct observability and resulting rating agreement. However, considering the lack of statistical support for this idea, it is possible that proactive people are still performing more implementation citizenship behaviors, but are doing them after regular working hours or in other situations where the supervisor is not present to observe them, which might create ambiguity in the supervisor's perspective of the subordinate's behavior and thus not result in increased agreement. In support of this idea, several studies have found that proactive personality is significantly associated with OCB (Li et al., 2010; Bergeron et al., 2014; Liguori et al., 2013). Thus, it is likely that proactive people are still performing more ICBs, but are doing so under the radar (i.e., before/after office hours), which limits the observability for their supervisor, resulting in a lack of agreement.

Subordinate tenure was not significantly related to rating agreement, in contrast to what was originally hypothesized. As previously mentioned in the literature review, it is likely that subordinates who have worked for the organization longer have had more of an opportunity to generate a reputation. They also have had more time to potentially develop a relationship with their supervisor. That being said, I would posit that if the supervisor knows the tenured subordinate well enough, they likely have a good idea of their general behavior (including their ICB). Thus, it might not be necessary for the supervisor to directly or indirectly observe that behavior in order to make a rating that they deem accurate. However, this creates the risk of missing the subordinate's behavior that might be out of the ordinary, and thus, the supervisor ratings might not be in line with the subordinate's self-ratings.

This study also found that dyads with demographic similarity did not exhibit higher rating agreement, in contrast to the hypotheses. Considering the large amount of research that has established that demographically similar supervisor-subordinate dyads typically experience higher quality LMX relationships (Turban & Jones, 1998; Wayne et al., 1997; Pelled & Xin, 2000; Varma & Stroh, 2001; Green et al., 1996; Bhal et al., 2007), and more subordinate liking (Turban & Jones, 1998; Wayne et al., 1997), it is possible that supervisors might have the tendency to rate subordinates higher than expected due to this increased liking and higher quality relationship quality. In accordance, Varma and Stroh (2001) found that both male and female supervisors gave higher ratings to members of the same gender. Thus, supervisors' potential to exaggerate ratings for subordinates of the same gender and/or race might be a possible reason for a lack of agreement between subordinate self and corresponding supervisor ratings.

This study did not find support for the hypothesized negative relationship between group size and rating agreement. It was theorized that supervisors who manage larger groups of

subordinates have less time to dedicate to each individual and thus have less opportunity to observe potential implementation citizenship behaviors. A potential explanation for this finding lies in how supervisors might handle ratings while managing a large number of subordinates. It is possible that the supervisor might have difficulty recalling which subordinate exhibited which citizenship behaviors over another. Alternatively, the supervisor simply might not have the time and resources to observe and communicate with each individual subordinate, especially in regard to behaviors that are not part of the formal job description. As a result of these scenarios, the supervisor might rate all their subordinates similarly on the ICB scale, at a baseline level, in order to minimize the burden of keeping all subordinates and their behaviors straight. Recall that the DNDD method relies on the presence or absence of variability in ratings. Thus, it is possible that supervisors that manage larger work groups are rating all of their subordinates the same, which shows a lack of rating variability. This is a potential reason why this particular finding was nonsignificant.

Finally, subordinates who met more frequently with their supervisors did not exhibit higher rating agreement, in contrast to the hypothesized relationship. In order to understand this finding, we can again rely on the LMX literature, specifically studies that have examined the effect of communication frequency on the quality of LMX relationships. As previously mentioned, prior research has found that communication frequency can be an influencing variable in the development and maintenance of high quality LMX (Salvaggio & Kent, 2015). Kacmar and colleagues (2003) found that at higher levels of LMX, subordinates who reported higher communication frequency with their supervisors received higher job performance ratings, and further, at low levels of LMX, higher communication frequency actually led to lower job performance ratings. These findings emphasize the importance of communication frequency in

establishing a high-quality relationship between subordinates and their supervisors. Thus, we can rely on the same logic from the prior section on demographic similarity; supervisors with higher quality LMX (as a result of communication frequency, or demographic similarity) are more likely to think fondly of those subordinates, and as a result, might exaggerate their ratings of ICB, creating a deficit between their ratings and the subordinate's self-ratings. Thus, it is possible that higher communication frequency might actually not lead to higher rating agreement. An alternative explanation for these findings could be that although certain dyads are meeting more frequently, it is possible that they are discussing topics unrelated to the subordinate's ICB. Thus, despite meeting frequently, it is still possible that the supervisor and subordinate ratings might not be in agreement.

#### Limitations and Future Research Directions

Although this study is promising as it represents one of the first to study predicting variables of citizenship rating agreement, it is only a starting point. Because research in this area is vastly underdeveloped, future studies should examine the influence of alternative predictor variables on self-other agreement of not only citizenship behavior ratings but also other measures of performance. It is highly possible that additional individual difference and contextual variables are playing a role in the extent to which self and subordinate ratings are in agreement. Specifically, related variables such as attitudes towards EBP and general OCB performance could have served as interesting predictors of not only the level of subordinate ICB but also the agreement between subordinate and supervisor ratings. If subordinates have positive attitudes towards evidence-based practices and also consistently go above and beyond in the workplace, it is reasonable to assume that they would perform implementation citizenship behaviors more regularly. Relatedly, this study did not consider that there might have been features of the

specific organization that could have influenced the results. For example, it is possible that some organizations had weekly supervision meeting requirements in place, which would put those participants at an advantage for meeting frequency. On a similar note, the operationalization of communication frequency in this study did not account for informal communication, such as conversations had in passing, outside of formal meetings. These types of conversations likely happen frequently in organizations, yet this study only considered formal meetings as the communication frequency variable. Future research should also account for informal communication between supervisors and subordinates. Another example of these potential confounding factors would also be the high levels of stress and burnout in the profession from which the sample came from (substance use treatment), which could limit the extent to which employees had the capacity to go above and beyond for implementation.

The data in this study were nested within teams that were also nested within organizations in different areas of the United States. That being said, it is possible that the nature of the data was dependent on the team and/or organization from which it came from, which in turn, affected the results. Nesting within these groups was not accounted for in the analyses. However, when dealing with issues of congruence, accounting for nesting would shift the focus to relative scores rather than absolute scores. This would ultimately change the meaning of congruence, thus changing the focal point of the study. That being said, and also considering the complexity of the analyses, the nesting was not taken into account. Future studies should utilize multi-level modeling techniques in order to parse out these differences. Additionally, future research should also examine how certain predictor variables predict agreement between a variety of rating sources, such as self and coworker ratings, or even self and customer ratings. Finally, future research should explore the other steps of the DNDD further (i.e., unique and



shared variability), as the supplemental findings of this study were promising. As far as statistical limitations, the DNDD method is still in its infancy, so future studies should continue to employ this method, in order to ensure consistency and standardization across samples. The data were also archival, which limited the scope of the variables that could be used for analyses.

Another limitation of the study is that it did not consider how the predictors influenced self-other agreement on high vs. low levels of ICB. This study only focused on agreement in general, and did not measure how high or low the actual ICB ratings were. Future studies should consider the potential differential relationships between predictors and agreement when the self and other ratings are high, low, or average. Finally, this study focused solely on implementation citizenship behavior, which is different from general organizational citizenship behavior. Thus, these relationships might be different when organizational citizenship behavior is the focal construct. Future studies should work to delineate these differences. In the future, I would hope that the broader OCB literature continues to examine relationships between variables and more specific facets of OCB, such as implementation citizenship behavior. As I mentioned previously, sometimes general OCB isn't necessarily applicable for an organization. In this case, a more specific measure of citizenship behaviors that reference a specific area of the job (i.e., implementation, safety) might be more applicable, and using it in research would provide a more accurate depiction of that job's citizenship behavior.

### Conclusion

The present study examined the influence of a variety of both individual difference and contextual variables on the extent to which self and supervisor ratings of implementation citizenship behavior (ICB) were in agreement. This study is also one of the first to utilize the DNDD method in order to examine the prediction of agreement. Additionally, this study

contributed to the literature by delineating the circumstances in which citizenship behavior ratings agree and disagree. Though the hypothesized relationships were nonsignificant, there were a number of interesting supplemental findings that indicate promising directions for future research and that indicate the need for more attention on the prediction of agreement between two ratings of the same variable.

## APPENDIX: IRB EXEMPT APPROVAL



UNIVERSITY OF CENTRAL FLORIDA

### Institutional Review Board

FWA00000351  
IRB00001138, IRB00012110  
Office of Research  
12201 Research Parkway  
Orlando, FL 32826-3246

### EXEMPTION DETERMINATION

February 14, 2022

Dear Alexandra Kandah:

On 2/14/2022, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study
Title:	Predicting implementation citizenship behavior rating discrepancies between supervisor-subordinate dyads
Investigator:	Alexandra Kandah
IRB ID:	STUDY00003901
Funding:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"><li>• Alex Kandah, Category: Faculty Research Approval;</li><li>• HRP255 SR Alex Kandah UPDATE 2, Category: IRB Protocol;</li><li>• List of variables used for analysis, Category: Other;</li></ul>

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-823-2901 or [irb@ucf.edu](mailto:irb@ucf.edu). Please include your project title and IRB number in all correspondence with this office.

Sincerely,

A handwritten signature in black ink that reads "Kamille C. Birkbeck".

Kamille Birkbeck  
Designated Reviewer

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