Towards a Measure of your Acquaintanceship with your Leader: Preliminary conceptual and empirical evidence

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Abstract

Employees often leave workplaces because of a manager, not the job. Embedded in the leadership literature is the assumption that relationships between managers and employees are confined to a workplace. In this thesis, I challenge this assumption and address a conceptual gap in how research has traditionally investigated the extent that leaders and followers become acquainted with one-another. A theoretical argument is made for introducing an acquaintanceship measure from social psychology into business research. Measures of leader-follower relationships currently used in organizational behavior and leadership research are compared against acquaintanceship to avoid the problem of reintroducing an already existing construct with a new label. A survey study is also conducted for the purposes of empirical examination of a revised acquaintanceship measure and an exploratory factor analysis was conducted. The results empirically corroborate the theoretical conclusions of the construct analysis and suggest the revised Personal Acquaintance Measure retains some psychometric rigor in a business context. Potential contributions of this acquaintanceship measure and future research directions are outlined.

Keywords: acquaintanceship; relationship; familiarity; leadership; construct; analysis; lmx; leader distance; trust

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ACQUAINTANCESHIP

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Introduction

Sometimes you will hear a person claim they quit their boss, not their job. In a Gallup poll of 2.5 million people in 195 countries, the poll illustrated one in two employees have, at one point in their career, left their job because of their manager (Gallup, 2015). This statistic speaks to the idea that good and bad relationships that form (or do not form) in the workplace play an important role in workplace outcomes. Leaders can get well acquainted with their followers in their time spent interacting with one another. In much of the leadership research there is an implicit assumption that leaders and followers are well acquainted. However, this is not always guaranteed in practice. Leaders have many responsibilities occurring outside of interactions with their followers and may not be focused on developing their relationships.

The anecdotal example of a Professor and the Dean of their faculty illustrates this point. A Professor may meet the Dean of their faculty when the Professor first starts working at an institution. However, as many academics may realize, the Dean has many responsibilities and is not always able to interact with the professors in their faculty. After five years, the Professor may have known the Dean for a considerable amount of time but only interacted with them on a minimal basis. If, for example, the Professor was a member of a committee also chaired by the Dean then this would increase the level of interaction between Professor and Dean. However, this level of detail is not collected in many studies investigating the relationship between leader and follower.

The assumption that leaders and followers are usually sufficiently acquainted—where acquaintanceship is defined below as being familiar with and knowledgeable about someone—is challenged by the research surrounding leader distance and leader-member exchange theory. Antonakis and Atwater's (2002) review of leader distance revealed that there are three independent components of this construct: physical distance, perceived social distance, and perceived task interaction frequency. To put it briefly: the component of physical distance describes how close two individuals are in a physical space, the component of perceived social distance describes how psychologically close two individuals

are, and the component of perceived task interaction frequency describes how often two individuals interact with one another. For example, leaders with cold demeanours exemplify physically close leaders who are socially and psychologically distant, treating employees as unfamiliar individuals. In another example, there are leaders with intentions to get to know their employees who have low physical distance between followers by virtue of working in the same office, but work responsibilities may pull leaders attention to tasks that result in a low interaction frequency with followers—resulting in relationships where leader and follower are not as closely acquainted as either of them would want (Antonakis & Atwater, 2002). Regardless of intentions, instances can occur where leaders and followers are not well acquainted with one another.

In practice, it may be hard for good leaders to continuously interact and socialize with their followers but "the best of leadership can be expressed through small but meaningful behaviours enacted at the right time" (Barling 2014, p.24). It is conceivable that with personal information achieved through becoming well acquainted with an individual, one would get a better grasp of what that "right time" is to enact specific leadership behaviours and this could influence how effectively leadership can be enacted. Leader-member exchange theory builds on this point and criticizes leadership research that generalizes leaders' interactions with followers, claiming that aggregating followers' perceptions of leaders ignores the uniqueness of leader-member dyads (Dansereau, Graen, & Haga, 1975). Considering that "the nature and quality of the leader-member relationship affects how employees behave at work," (Barling 2014, p.74) variability in the degree of acquaintanceship between leader and follower may become an issue for researchers seeking to generalize employee outcomes associated with leadership.

In this paper, I discuss several constructs within the business literature measuring some aspect(s) of leader-follower relationships. These constructs mostly fall short of being comprehensive measures of relationships or they *stop at the organizational door*. In other words, they don't follow and address the development of relationships outside of work through potential interactions such as meeting for dinner after work, chatting about life over coffee or drinks, etc. After-hours socialization is an important external

environmental factor in the development of work relationships. To address the need for comprehensively measuring relationships, it may be beneficial to consider constructs developed outside the business literature.

A Case for a New Measure of Leader-Employee Relationships

Starzyk, Holden, Fabrigar, and MacDonald (2006) explore social psychology literature investigating familiarity and acquaintanceship in relationships. They define acquaintanceship as "the degree to which one is familiar with or has knowledge about another person" (Starzyk et al., 2006, p.833). Their main criticism of the psychology literature is duration of relationships is used to measure familiarity and acquaintanceship between individuals. Organizational Behaviour (OB) researchers similarly assume that duration of job tenure is a proxy measure for familiarity with supervisor or it is used as a control measure of acquaintanceship or feelings of familiarity towards a leader or organization (for examples, see: Mossholder, Niebuhr, & Norris, 1990; Wayne, Shore, & Liden, 1997; Wayne, Shore, Bommer, & Tetrick, 2002; Shin & Zhou, 2003; Lok & Crawford, 2004; Krishnan, 2005; Alok, 2014).

Duration is not a suitable measure of relationships. Starzyk and colleagues (2006) found duration is weakly correlated to frequency of interaction and not necessarily indicative of acquaintanceship. Alok (2014) surveyed 182 professionals working in Indian organizations and found dyadic (leader-follower) duration was not correlated with the relationship between authentic leadership and psychological ownership of fulfilling aspirations of the organization. In another example, Duarte, Goodson, and Klich (1994) surveyed 367 employees from a southeastern United States telephone company and found that duration of supervisor-subordinate relationships was not related to performance ratings for employees with a high-quality relationship with the leader (although duration of relationship was related to performance ratings when quality of relationship was low). It is not safe to assume that duration of job tenure or relationship is always a good measure of acquaintanceship between individuals. To this end, Starzyk and colleagues (2006) developed a Personal Acquaintanceship Measure (PAM) that serves as a

more comprehensive measure of familiarity or acquaintanceship within a relationship. The PAM could be used to fill the gap in the current OB/leadership literature investigating leader-follower relationships.

However, caution is needed when introducing the construct of acquaintanceship into leadership. A critical issue with introducing new constructs "is whether the construct in question *really is new* or whether it represents 'old wine in new bottles'" (Spell, 2001; Colquitt & Zapata-Phelan, 2007, p.1284). Therefore, the following exploratory research question is posed: Is the construct of acquaintanceship a unique construct for assessing leader-follower familiarity in both the OB and leadership literature? To begin to answer this question, Blalock's (1982) description of the process of operationalization is used, where Blalock (1982) states there are two essential parts in operationalization: conceptualizing and measuring the concept. To address the first part of operationalization, a construct analysis is presented where different constructs within the OB and leadership literature measuring some facet of leader-follower relationships are conceptually compared to the construct and scale (the PAM) of acquaintanceship from social psychology literature. I outline each construct in turn, how they are used in both the OB and leadership literature, and provide conceptual arguments detailing the differences between the constructs and the scales measuring their respective constructs. To address the second part in Blalock's (1982) process of operationalization, I empirically measure acquaintanceship and provide evidence for convergent and divergent validity to assess the uniqueness of the acquaintanceship (AQ) construct.

I begin the construct analysis by outlining the AQ measure (the PAM) that was developed in a social psychology context and focusing on how this might be usefully adapted for our purposes in an OB/leadership context. Where relevant, literature from OB and/or leadership research is drawn upon throughout the following section. A summary of the construct analysis can be found as Table 1.1 in Appendix 1.

<Insert Table 1.1 from Appendix 1 here>

Conceptualizing Acquaintanceship: Construct Analysis

Acquaintanceship

Definition and what Acquaintanceship Measures. Starzyk and colleagues (2006, p.833) use "acquaintance" to "refer to the degree to which one is familiar with or has knowledge about another person" and developed the acquaintance construct within the context of social psychology literature. Starzyk and colleagues' (2006) main issue with most longitudinal studies investigating acquaintanceship (AQ), or similar constructs, is the assumption that AQ is equated with the duration of interaction between individuals. Equating AQ with duration of interaction is an issue seen not only in longitudinal studies within social psychology research, but also studies within leadership research. Starzyk and colleagues' (2006) argument against using duration is that self-disclosure, a complex multidimensional process, is dependent not only on some measures of duration and frequency of interactions but also measures of quality of interaction; therefore, duration is insufficient. In addition, self-disclosure is thought to be a better predictor than duration of how relationships affect people (Starzyk et al., 2006).

Starzyk and colleagues (2006, p.835) hypothesized "acquaintance quality could be assessed through people's ratings of the degree of variety of verbal, nonverbal, and environmental self-disclosure." To explore this hypothesis, 222 statements related to the topic of familiarity and AQ were developed by item writers who were trained to write items and briefed on the study's literature review. The experimenters had 99 students rate the 222 items twice with a 3-week period between each rating session. Participants were instructed to answer items while conceptualizing an individual they were not very acquainted with (n=31), moderately acquainted with (n=34), or very acquainted with (n=34). After participants' answers were collected, analyses were done to identify dimensions within the item set that would operationalize AQ.

Exploratory factor and principal-components analyses revealed 6 meaningful factors. Out of the full item set, the three items that most correlated to each factor were extracted to create the 18-item

Personal Acquaintance Measure (PAM). The six factors, or dimensions, are: Duration, the length of time the relationship between two individuals has existed; Frequency of Interaction, how often two individuals interact on a daily, weekly, or general basis; Knowledge of Goals, how much an individual is aware of another's goals or interests; Physical Intimacy, how often two individuals are physically affectionate or intimate; Self-Disclosure, the extent to which an individual reveals their true feelings to another; and Social Network Familiarity, the extent to which an individual is familiar with another's friends and others in their social network. Tests on the PAM provide evidence for internal consistency with a Cronbach's alpha of 0.90, and evidence for 3-week test-retest reliability with a Cronbach's alpha of 0.97. In a second study, the six dimensions were found to be internally consistent and sensitive to known group differences, with evidence for convergent and discriminant validity. Starzyk and colleagues (2006) concluded that all these dimensions may have quantitative and qualitative aspects, however duration and frequency of interaction generally represent acquaintance quantity, while the other four dimensions generally represent acquaintance quality. The authors conclude that the PAM is very versatile and can be adapted to be used in different contexts or research areas.

How Acquaintanceship is Used in Business Literature. Starzyk and colleagues (2006) claim the PAM can be adapted to apply to different contexts—for example, a group measure of acquaintanceship. One immediate issue with the current PAM is some items ask about behaviours that would be inappropriate in a workplace context. The following items from the physical intimacy dimension do not represent typical relationships found between manager and employee: "___ and I are physically affectionate," "___ and I have been physically intimate," and "___ and I often hold hands when we walk together" (Starzyk et al., 2006, p.847). Starzyk and colleagues (2006) acknowledge that scores for the Physical Intimacy subscale are restricted in non-romantic relationships. Therefore, to administer the PAM in a workplace context, these items need to be adapted.

Within marketing literature, there is one study that adapts and uses the PAM to distinguish among friends and good or bad customers (Bäckström, Pitt, Campbell, & Nel, 2009). The PAM was slightly

modified to "reflect more closely the kind of personal acquaintance relationships salespeople would have with customers" where the physical intimacy items were changed to refer to shaking hands and hugging as opposed to being physically intimate (Bäckström et al., 2009, p.31). The adapted PAM was administered three times to salespeople. Each time the adapted PAM was administered, the salesperson was asked to conceptualize a different person: the first time conceptualizing a good customer, then a bad customer, and finally conceptualizing a friend. The experimenters found a statistically significant difference between how salespeople rated friends compared to customers. There was also a significant difference in level of AQ between good customers and bad customers in the different dimensions of the PAM except for the dimensions of frequency of interaction and level of self-disclosure. These results suggest their adapted PAM had retained its psychometric rigour in this new context. Bäckström and colleagues' (2009) analysis of the PAM used a principal components analysis with varimax rotation and eigen values at >1 as a cut-off criterion. Bäckström and colleagues (2009) found the PAM items loaded strongly for 5 of the 6 factors discussed by Starzyk and colleagues (2006). While the items for Social Network Familiarity did load onto the same 6th factor they did not load very strongly.

Other than Bäckström and colleagues' (2009) study, it does not appear that the PAM has been adapted for other contexts in business research. This is an opportunity to further investigate workplace dynamics by revising this measure to focus on the leader-follower relationship. However, there are some other potential constructs that might tap into the same concept. The following sections will compare constructs that do exist in OB/leadership research with the PAM in order to make the case that a new measure of leader-follower relationships would be useful.

Duration

Definition and what Duration Measures. Duration is a quantitative measure of how much time two individuals have spent in contact. In social psychology or OB research, it can be measured in minutes (ex. Blackman & Funder, 1998), months (ex. Boyle, Bott, Hanse, Woods, & Taunton, 1999), years (ex.

Krishnan, 2005) or even with labels (i.e. known as a friend, roommate, spouse, etc.; Colvin & Funder, 1991).

How Duration is used in OB Literature. Duration in an OB context is often referred to as job tenure. For example, Hall and Nougaim (1968) investigated the relationship between managers' duration of career and components of Maslow's hierarchy of needs. In this investigation, duration was measured in years. In another example, Buchanan (1974) investigated the relationship between duration of career in years and important outcomes in organizational commitment and socialization. However, job tenure is not relevant for the present study as it is a measure of the relationship between a person and an organization as opposed to a measure of the relationship between two people. Duration is used as a measure of the relationship between two people in leadership research.

How Duration is used in Leadership Research. Krishnan (2005) used relationship duration as a moderator of the relationship between leader and follower. The effectiveness of a school principal as a transformational leader to 144 teachers in a prominent school in western India was investigated and relationship duration was measured in terms of years. A value-survey was administered to the teachers and the principal to compare the principal's values to teachers' values to supplement their investigation of leader-follower relationships. Krishnan (2005) found that as relationship duration increased, transformational leadership had a more positive effect on outcomes associated with teachers identifying with school values.

Duration of a relationship has been examined as a moderator. For example, Mossholder and colleagues (1990) investigated dyadic durations as a moderator of relationships between supervisory leadership behaviour and subordinates' behaviours. The researchers sampled the engineering division of a medium sized industrial company, measuring perceived leader behaviour, job satisfaction, and job performance. They found that the longer the duration of a relationship between follower and leader, the less impact leadership behaviour had on performance.

While some studies examine duration as a moderator while investigating various interpersonal and OB constructs, the majority use duration as a control variable. For example, Lok and Crawford (2004) investigate the effects of organizational culture and leadership styles on job satisfaction and organizational commitment. In this study, they use duration of tenure in years as a control variable in their regression analysis. Wayne and colleagues (1997) used organizational tenure and dyad tenure as a control variable to represent the duration of leader-member exchange relationship. Wayne and colleagues (2002) used organizational tenure as a control for perceived organizational support and dyad tenure as a control variable for leader-member exchange. Shin & Zhou (2003) used duration of leader-follower relationship as a control when investigating the relationship between transformational leadership and creativity, conservation (conformity), and intrinsic motivation. These studies provide examples for various ways research studies use duration as a control.

Comparison between Acquaintanceship Construct and Duration Construct. Starzyk and colleagues (2006, p.834) summarize the concern with using a measure of duration instead of a measure of AQ in research:

> "…research has operationalized acquaintance as elapsed time. This practice is rooted in convenience rather than acceptance that acquaintance and elapsed time are interchangeable, because few methods to measure acquaintance exist. Time is a necessary but not sufficient condition for acquaintance to develop."

While duration measures the quantity of time that two individuals have known one another, it does not describe the frequency or quality of interaction that has occurred during that period. The variable of time only describes possible quantities of interaction and, by virtue of being a numerical variable, does not have the capacity to describe the quality or nature of interaction.

The AQ construct not only considers the quantity of interaction that has happened in the duration that two individuals have known each other, but also assesses the quality of those interactions. To assess the quality of interactions between individuals, the PAM prompts respondents to describe the level of self-disclosure, closeness, and familiarity between them and another individual. The distinction between

the constructs of duration (one measure of quantity of the relationship) versus the combination of the six dimensions of the PAM (two measures of quantity and four measures of quality of the relationship) justifies using the PAM to observe more details of a relationship. One may also consider that AQ can be high for individuals that are either liked or disliked (Bäckström et al., 2009). Using duration as a measure of a relationship between two individuals does not identify the affinity one individual has towards the other. The other dimensions of the PAM may identify between liked or disliked individuals based on differences in total scores on the PAM, as seen in the different means of PAM scores between good (liked) customers and bad (disliked) customers in Bäckström and colleague's (2009) study.

Based on this comparison, it can be concluded that AQ and duration are different constructs. While they both describe similar content, AQ more comprehensively measures both the quantity and quality of a relationship while duration only measures one aspect of quantity. The next construct to compare, Leader-Member Exchange, is one that has the opposite restriction of duration: it mainly measures the quality of a relationship with little regard for the duration of the relationship.

Leader-Member Exchange

Definition and what Leader-Member Exchange Measures. Leader-Member Exchange (LMX) theory explains a relationship between leader and follower as a leadership style. Graen and Uhl-Bien (1991) explain that effective leadership processes and subsequent benefits are realized through the development of mature leadership relationships. In other words, LMX theory argues one leadership style can consist of establishing social exchange relationships, developing those relationships between a leader and member, and measuring the quality of that relationship (Graen & Uhl-Bien, 1991; Graen & Uhl-Bien, 1995; Howell & Hall-Merenda, 1999).

How Leader-Member Exchange is used in OB Literature. Within OB literature, LMX has a statistically significant relationship with many different constructs such as individual level outcomes (commitment, performance, etc.), group level outcomes (group member relationships, group performance,

etc.), and organizational level outcomes (labour costs, turnover, etc.; see: Gerstner & Day, 1997; Henderson, Liden, Glibkowski, & Chaudhry, 2009; Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016). Graen and Uhl-Bien (1995) list 2, 4, 5, 7, 10, 12, and 16-item scales to measure LMX. The 7-item LMX scale (Graen, Novak, & Sommerkamp, 1982; Seers & Graen, 1984) correlates highly with the other scales (Graen & Uhl-Bien, 1995) and is one of the more popular scales used (Martin et al., 2016). The most important item of the 7-item scale is "How effective is your working relationship with your leader?"

How Leader-Member Exchange is used within Leadership Research. The discussion of how LMX is used in OB literature is inherently also a discussion of how it is used in leadership literature. LMX is a construct that addresses the idea that "the nature and quality of the leader-member relationship affects how employees behave at work" (Barling 2014, p.74). The basis of LMX is that leaders treat each of their followers differently, consequently leading to different qualities of relationship between a leader and each follower (Martin et al., 2016). For reviews on the wide breadth of research surrounding LMX and positive follower outcomes, see Martin and colleagues' (2016) meta-analysis, and a literature review by Anand, Hu, Liden, and Vidyarthi (2011).

LMX has been criticized within the literature. The main criticism has been on the LMX construct changing and being augmented over time to fit into different models as opposed to staying as one consistent construct. To set the tone for some of the criticisms made, Schriesheim, Castro, and Cogliser (1999, p.100) criticize LMX scales saying they "seem to have been developed on an ad-hoc, evolutionary basis, without the presentation of any clear logic or theory justifying the changes which were made." Part of the reason for this seems to be that much of the early theoretical work for developing LMX has been written by Graen and associates and lacks a diversity of perspectives, resultantly requiring more basic theorization and model development (Schriesheim et al., 1999). Graen & Uhl-Bien (1995) themselves have suggested a controversy surrounds the measurement and dimensionality of the LMX construct because of the continual redefining of the LMX scale.

Barling (2014, p.15) claims the most troublesome question is whether the quality of the leader-member dyad "*is* leadership per se, as LMX theory implies, or whether it is a *consequence* of high-quality leadership." Many of the main qualities characterizing high-quality LMX relationships (such as trust or liking) are some of the most consistent outcomes of leadership, regardless of leadership style (Barling, 2014). Barling (2014) suggests that it is possible that the products of high-quality LMX relationships are reflections of the consequences of leadership behaviour. Contrary to this critique, Martin and colleague's (2016) meta-analysis of LMX and performance outcomes found some evidence for LMX leading to task performance but not a reciprocal direction of effects, suggesting a causal relationship where LMX has a positive effect on task performance.

Comparison between Acquaintanceship Construct and Leader-Member Exchange Construct. The early LMX construct was not related to the acquaintance construct as much as the present LMX construct is. The early LMX construct was characterized by task-related competence, interpersonal skills, and trust (Graen & Uhl-Bien, 1995). Over time, concepts of attention, support, and rewards were added to the construct. The present LMX theory is now characterized by trust, understanding, support, provision of information, opportunities for involvement in decision-making, role latitude, and autonomy (Bass & Riggio, 2006; Martin, Thomas, Legood, & Dello Russo, 2018).

As it developed over time and acquired new dimensions, the dimensions of LMX begin to appear more like AQ. Given the evolution of LMX theory and accumulation of domains of leadership, Graen and Uhl-Bien (1995, p.225) claim LMX "incorporates an operationalization of a relationship-based approach to leadership." The PAM also measures six specific aspects of relationships, but while the PAM has one measure and operationalization, LMX is operationalized and measured inconsistently across studies because of its changing nature (Barling, 2014). This changing nature and inconsistent measuring makes it difficult to narrow down what specific aspects of relationships are being measured. Regardless, one aspect that is often excluded in LMX is the duration and frequency of interaction within the relationship (Barling, 2014), meanwhile duration and frequency of interaction are dimensions of AQ (Starzyk et al.,

2006). Therefore, one of the most important distinctions between LMX and AQ is the simplest one: LMX does not measure the quantity of a relationship. Bass and Riggio (2006, p.231) describes that "LMX unfolds in several stages in which trust, loyalty, and respect develop" and these are all descriptions of quality of relationship. LMX is also criticized for placing all its emphasis on the quality of the relationship, and often excluding the influence of the context that the relationship appears in (Schriesheim et al., 1999; Barling, 2014). For example, contexts of the nature of workplace policies may play a role in how employees answer the LMX scale's questions about their managers' behaviours. A workplace requiring large involvement on the part of the employee may often have employees working after hours and interacting with managers. Alternatively, a workplace that prohibits working outside of normal hours would not see as much interaction between manager and employee—unless they are socializing during those off-hours. LMX has the opposite problem of the construct of duration: while duration only measures quantity of relationships, LMX only measures quality of relationships. The PAM, as an operationalization of AQ, measures both quantity and quality of relationships.

The next logical question is then: 'why not just combine a measure of LMX and duration to get a measure of both quantity and quality of relationship?' This is a valid question, especially since LMX shares with AQ the value of emphasizing the uniqueness of leader-follower relationships (Dansereau et al., 1975). Perhaps the main distinction is that AQ adds, above these two constructs in combination, an analysis of the relationship beyond the workplace. LMX dimensions are contextualized in workplace interactions and duties while AQ remains focused on a social relationship that may be formed both within and outside the workplace. In other words, the concepts associated with AQ surround communication, self-disclosure, general social interactions, and networking (Starzyk et al., 2006) while LMX describes workplace interactions and beliefs about intentions of leaders that *stop at the door* of the workplace and don't extend into after-work interactions. For example, several items from the 7-item LMX scale inquire about: how you believe your leader would defend you, how well your leader understands your job needs or potential, and your working relationship with your boss among other job-related scenarios. The PAM

inquires about social interactions, whether they are inside or outside the workplace such as: how physically affectionate (hugging, shaking hands) you are with your leader, how often you go to parties with them, and if they have told you about their goals or interests. These PAM items describe types of interactions that are not necessarily job-related but can be contextualized as job-related if they are considered congratulatory hugs or hand shakes, office parties, and career goals. They can just as easily be non-job related if interpreted as: regular hugs and hand shakes, a social party at a bar, or long-term family goals and interests, for example. This flexibility of contextualization is not captured by a combination of LMX and duration.

Based on this comparison, it can be concluded that AQ and LMX, while related, are different constructs. LMX and AQ both describe relationships, emphasize the uniqueness of different relationships, and the latest iteration of LMX theory and AQ share some similarities in the content described. However, the latest iteration of the LMX and the 7-item LMX scale measure the quality of a relationship while AQ and the PAM measure both quality and quantity of a relationship and considers this both within and outside the workplace context. The next measure I will investigate is trust.

Trust

Definition and what Trust Measures. Mayer, Davis and Schoorman (1995) presented a model of organizational trust that has become a very well-cited standard in the OB literature. They define trust as a willingness to take a risk. Trust is established based on a generalized expectation about the trustworthiness of others. Mayer and colleagues (1995) argue trustworthiness of others is in part due to past characteristics and actions of those people. Their model of trust outlines three antecedents to trust, also called factors of perceived trustworthiness: ability, benevolence, and integrity. Barling (2014, p.75) summarizes the work of Mayer and colleagues (1995): "[organizational] trust reflects (a) a willingness by subordinates to leave themselves vulnerable at the hands of their leaders (b) in expectation that, in return, their leaders will behave in a way that they personally value, (c) despite employees' inability to constantly monitor their leader's behaviour." However, Mayer and colleagues' (1995) definition of trust is not

universal within the literature, below are some more specific conceptualizations of trust that are contextualized in OB.

How Trust is used in OB Literature. The investigation of trust in OB research is extensive and to discuss it thoroughly would require its own literature review. For a comprehensive review of four decades of trust literature, see Dirks and Ferrin (2001). Of relevance to the present study is how the construct of trust is measured in the OB literature, and how it relates to AQ. Two operationalizations of trust that help illustrate the role of trust in investigating relationships to later compare with AQ are Clark and Payne (1997) and Cook and Wall (1980).

Clark and Payne (1997) presented a questionnaire to measure workers' trust in management. Their questionnaire was based on six elements of trust that they derived from a literature review: integrity, competence, consistent behaviour, loyalty, openness, and respect shown. Integrity, for example, had items such as "Most managers are honest and truthful about information to do with the job" and "I believe that I will act as though managers are honest." Openness has items such as "Management openly share information about future plans" and "Most managers have shown that I can express my opinions and not hold them against me." A common theme among the items in this scale is that they inquire about the employees' perceptions of how they believe their management is acting.

Cook and Wall (1980) investigated the relationship between trust, organizational commitment, and fulfilment of personal needs with intentions to introduce a measure for these constructs. Trust was investigated between co-workers as well as between co-worker and manager. Trust between oneself and a co-worker were measured by Cook and Wall (1980) with questionnaire items such as: "If I got into difficulties at work I know my workmates would try and help me out" and "I can trust the people I work with to lend me a hand if I needed it" (Cook & Wall, 1980, p.50-51). Trust between oneself and a manager were measured with questionnaire items such as: "Management at my firm is sincere in its attempts to meet the workers' point of view" and "I feel quite confident that the firm will always try to treat me fairly" (Cook & Wall, 1980, p.50-51). Similar to Clark and Payne's (1997) scale, the items in

Cook and Wall's (1980) scale revolve around the theme of how employees perceive management or coworkers are acting at work.

How Trust is used with Leadership Research. Generally, trust in one's leader is an outcome of high-quality leadership along with a sense of interactional justice (Barling, 2014). Trust has also been investigated as a mediator between leadership and positive organizational outcomes such as organizational citizenship behaviour (Podsakoff, MacKenzie, Moorman, & Fetter, 1990), psychological safety and performance (Schaubroeck, Lam, & Peng, 2011), and knowledge sharing "as a behavioral expression of trust (Barling, 2014, p. 75). For more examples where trust acts as a mediator between transformational leadership and outcomes such as increased organizational citizenship behaviours, greater job satisfaction, greater employee well-being, propensity to knowledge share, and increased organizational commitment, see Barling (2014). For the purposes of this study, I will focus on the differences between the construct of trust and the construct of AQ and their respective scales.

Comparison between Acquaintanceship Construct and Trust Construct. Perhaps the qualities of trust that resemble AQ the most are the factors of perceived trustworthiness (ability, benevolence, and integrity; Mayer et al., 1995). When Mayer and colleagues (1995) argue trustworthiness of others is in part due to past characteristics and actions of those people, it implies that trustors gain knowledge to interpret the trustees' trustworthiness through past interactions, gaining information through trustees' self-disclosure. Frequency of interaction and self-disclosure are two of the dimensions of AQ. Clark and Payne's (1997) elements of trust expand on Mayer and colleagues' (1995) components of trustworthiness. Clark and Payne's (1997) fifth dimension of trust is openness, or mental accessibility and availability, and describes a willingness to share ideas and information. The dimension of openness is very similar to the AQ dimensions of knowledge of goals and, again, self-disclosure.

Although the constructs of trust or AQ may share some similar dimensions, exploring how trust is used in the literature illustrates the distinction between AQ and trust. While trust describes a follower's established willingness to take a risk with their leader, AQ describes the degree to which that follower has

developed a relationship with their leader. While trust can describe a state of mind (Clark & Payne, 1997), AQ describes the state of a relationship (Starzyk et al., 2006). The subtle distinction between what trust describes versus what AQ describes is seen in how these constructs are measured. While the items of trust scales are generally inquiring about how one thinks they, a co-worker, or manager acts, the items of the PAM are asking about the state of familiarity or knowledge one has of another person's life events, people and ideas associated with them, and personal information and goals.

Another key distinction between trust and AQ is the change in these constructs over time as two individuals stay in contact. Trust may develop slowly over time and maintaining trust requires a constant supply of information that proves trustworthiness; however, if there is solid evidence of untrustworthiness, trust is almost immediately destroyed (Currall & Epstein, 2003). AQ, on the other hand, can only ever increase over time as "people should acquire more information and information that is more representative and relevant over time" (Starzyk et al., 2006, p.835). The speed that AQ will develop over time will depend on the quality of interactions and how much self-disclosure occurs, but it should still always be increasing.

Trust and AQ may seem to be similar constructs at the surface level; yet inspecting the operationalized trust and AQ constructs reveals that they differently describe a leader-follower relationship. Although not the same construct, trust may still be related to AQ—Luhmann (1979) claims that AQ is a precondition or antecedent of trust. By developing AQ, a trustor may in-turn acquire knowledge about a trustee's ability, benevolence, and integrity and can use this information to decide to trust that individual or not. Trust is not always guaranteed in a relationship just because one person has become well acquainted with another (Mayer et al., 1995): higher AQ may decrease trust when the individual is untrustworthy.

The difference between AQ and trust can also be found in studies that simultaneously investigate these two constructs, or at least components of these constructs. In Moore, Shaffer, Pollak, and Taylor-Lemcke's (1987) experiment, they investigated frequency of interaction (a dimension of AQ) and

interpersonal trust in a simulation. Groups played a game up to 5 rounds. An increase in rounds, and resultantly an increase in interaction, between group members was found to be related to increased interpersonal trust. This experiment treats the frequency of interaction dimension of AQ as a construct that is separate from trust. Further, it demonstrates that the frequency of interaction dimension of AQ can be an antecedent to trust. On this basis, AQ may be able to predict interpersonal trust. If this experiment was repeated with the PAM, AQ may arguably predict more variance in interpersonal trust as the PAM measures more than just frequency of interaction, and other dimensions of AQ may provide more insight into Mayer and colleagues' (1995) three components of trustworthiness.

Based on this comparison, it can be concluded that AQ and trust are different constructs. These constructs have some similarities, however, AQ and trust describe different aspects of relationships and they do not measure the same dimensions. Specifically, trust, like AQ, describes the development of a relationship between two individuals. However, the difference is in how trust describes an individual's inclination to act on perceptions of risks related to another individual while AQ describes how familiarized an individual is with another individual and does not describe how one would act based on risks associated with the other individual. Like LMX, trust, and AQ, leader distance is another construct that describes the development of a relationship between individuals.

Leader Distance

Definition and what Leader Distance Measures. Antonakis and Atwater (2002) provide an operationalization of leader distance with three independent dimensions: leader-follower physical distance, perceived social distance, and perceived task interaction frequency. Leader-follower physical distance is discussed in terms of proximity and describes aspects of distance created by physical structure (office floor plan) and organizational structure (job hierarchy). Perceived social distance is related to psychological distance and refers to the degree of understanding and intimacy which characterize personal and social relations. In the operationalization of leader distance, social distance is defined as

perceived differences in: status, rank, authority, social standing, and power. Finally, perceived task interaction frequency is simply how often followers perceive their leaders to interact with them.

　　How Leader Distance is used with OB and Leadership Research. A large portion of leader distance literature is, as the name suggests, rooted in leadership research as opposed to general OB research. Of the three components of leader distance outlined by Antonakis and Atwater's (2002) model, perceived social distance is perhaps the most important one when considering AQ. The component of social distance originated from Park (1924) who characterized social distance as the degree of understanding and intimacy in personal and social relations. In the leader distance literature, social distance has since been used to investigate employees' perceptions of leaders when leaders would purposefully create large social distances between them to create a sense of infallibility (Shamir, 1995; Antonakis & Atwater, 2002; Collinson, 2005; Cole, Bruch, & Shamir, 2009) and one way to create a sense of infallibility through distance is to increase the distance in an organization's structural hierarchy between a leader and subordinate (Antonakis & Atwater, 2002).

　　An example of leader distance being used in the literature is Cole and colleagues' (2009) investigation of social distance as a moderator of the relationship between transformational leadership and follower's emulation of leader behaviour. Social distance in that study was operationalized based on differences in hierarchy level between followers and leaders. For example, small social distance would be characterized by an employee and their direct supervisor, while large social distance would be composed of low-level employees matched to an indirect supervisor such as high-level executives. This is the standard operationalization of leader and social distance throughout the leader distance literature (for examples, see: Avolio, Zhu, Koh, & Bhatia, 2004; Liu & Liao, 2013; Zhang, Waldman, Han, & Li, 2015). In many studies, the categorization of distance is contextualized in a specific organization's structure at the time the study was conducted. The contextualization of leader distance in specific organizations is important to keep in mind when assessing the strength of operationalization of leader distance in comparison to AQ, especially since it hinders the generalizability of leader distance from one study that

samples a specific organization to another study that samples a different organization where organizational structure and hierarchy may differ (for an explanation on organizational structures, see: Burns & Stalker, 1961).

Comparison between Acquaintanceship Construct and Leader Distance Construct. The distinction of AQ from leader distance may be the most important one for justifying the use of AQ in OB research. Depending on how social distance is used in studies, this operationalization can be very similar in content to AQ. Antonakis and Atwater (2002) use the component of social distance to mean perceived differences in social standing, degree of intimacy and social contact, status, rank, and authority. Both social distance and AQ are constructs assessing a relationship where knowledge is disclosed through self or environment from one person to another (Shamir, 1995; Antonakis & Atwater, 2002; Starzyk et al., 2006). The leader distance component of perceived task interaction frequency also resembles the PAM dimension of Frequency of Interaction.

Despite the similarities, a distinction can be made between leader distance and AQ when comparing different relationships at the same level of an organizational hierarchy. Consider an anecdotal example of an HR manager interacting with two different employees. One employee regularly comes in to discuss job content, performance benchmarks, and asks for help with bridging the gap between where they are and where they want to be in the organization. A second employee regularly comes in to update about some family situation, aspirations the employee has, and asks for help with bridging the gap between where they are and where they want to be in the organization. If the HR manager follows some policy to treat both employees' meetings equally, then leader distance would be expected to be equal in both situations since the physical distance and frequency of interaction are the same, and social distance—as measured by hierarchical distance—is the same in both situations. However, because of the content of the conversations, a higher level of AQ would be expected for the HR manager's relationship with the second employee because there would be expected differences in ratings of self-disclosure and

social network familiarity. Therefore, AQ would be different at the same level of leader distance, suggesting these constructs measure different things.

If customers can be considered part of the hierarchical structure of an organization, then Bäckström and colleagues' (2009) study supports the anecdotal example above. Their results suggest differing levels of AQ can be measured among people at the same hierarchical levels of an organization. They found differing levels of AQ between salespeople and good versus bad customers, even though there was no significant difference in frequency of interaction or level of self-disclosure. If customers cannot be considered part of the hierarchical structure, it would be possible to design a study to attempt to replicate these findings for good versus bad coworkers and supervisors to better support this argument with individuals in actual leader and follower roles.

This leads to the biggest distinction between leader distance and AQ: how their measurement is operationalized. Leader and social distance are not as rigorously operationalized for measurement as AQ. In most of the leader distance literature, the measurement of distance seems to be acquired by comparing individuals at differing hierarchical levels of an organization and depends heavily on the organization being studied. The results of using both constructs are different. The description of closeness between leader and follower is more subjective and circumstantial—because organizations' structural hierarchy can differ from study to study—than the numerical result provided by the PAM. Keeping in mind the self-report data from the PAM is also subjective, the scale used to collect self-report data is consistent across studies. While both leader distance and AQ are, at least in part, descriptions of intimacy and social contact within a relationship, the description of these characteristics of relationships are different. As seen by the use of hierarchical level within an organization as a measure of social distance, leader and social distance provides *some sense of the level* of social contact within a relationship. Meanwhile, AQ more precisely provides *a specific (numerical) level* of the characteristics of a relationship represented by the construct of AQ.

Following the anecdotal example above, the difference in status and power between an HR manager and employee suggests there is some interpretable distance in the relationship, but what is it interpreted as? If the relationship is good and the HR manager is happy with the employee, one would expect them to interact frequently (for the sake of the working relationship), have high self-disclosure (about events in their work or lives such as reasons for missing/rescheduling work), have knowledge of each others' goals (to work towards either in their personal or professional lives), be familiar with each others' social network (for the purposes of professional networking), and resultantly score high on the PAM. This situation would also be characterized as low leader distance since social distance (as described above) and physical distance would be low and frequency of interaction would be high. If the opposite manager-employee relationship existed (i.e. bad relationship with low interaction, reluctance to self-disclose, little knowledge of goals, and being unfamiliar with each others' social network) then the resulting score on the PAM would be low, and the leader-distance would be characterized as high (because of less interaction and less social intimacy) despite hierarchical level staying the same. But what about the shades of relationship between good and bad? The result of the PAM is an interval scale measuring relationships, while the result of leader-distance is categorical (ex. high distance vs low distance) as defined by Antonakis and Atwater (2002). A *somewhat* good relationship can be distinguished from a *very* good relationship by mean scores on the PAM. Similarly, a *somewhat good* or *somewhat bad* relationship could be distinguished from a *neither good nor bad* relationship by analyzing the mean scores on PAMs. Leader distance does not have the capacity to interpret these differences as shown by the broad typologies of leaders outlined by Antonakis and Atwater (2002).

One final distinction is something also seen in the comparison of LMX and AQ: the idea that leader distance *stops at the door* and does not follow relationships outside the workplace. Leader distance is dependent on measuring differences in organizational hierarchy, and the differences in hierarchy inside the workplace are different for the same people if they are interacting outside the workplace. For example, if both an employee and their direct supervisor are attending a wine club, then the employee and their

supervisor are outside the organizational hierarchy and the supervisor no longer has authority over the employee's conduct as each individual is conducting themselves in the capacity of their personal lives and not their professional lives. Despite an employee still being cautious about how they conduct themselves in front of their supervisor, the supervisor's lack of authority in a personal setting decreases the difference in status and power between the supervisor and employee, consequently changing the social distance between the two (Antonakis & Atwater, 2002). In instances where employees ignore or avoid their supervisors outside the workplace, leader distance would not exist since there is no power dynamic without any interpersonal interactions. These different levels of leader distance occurring at different instances in the relationship are not reflected in the measurements of leader distance since leader distance is dependent on differences in organizational hierarchy and interactions within the workplace. Unlike leader distance, the descriptions of relationships provided by the PAM is able to capture the dynamics of individuals interacting outside the workplace because its operationalization is not based on organizational hierarchies.

Based on this comparison, it can be concluded that AQ and leader distance are different constructs. There are some similarities in the content that both construct describe. However, one difference that sets these constructs apart is how their measurement is operationalized. Leader distance is measured by differences in hierarchy while AQ is measured by rating experiences from interacting with another individual. Therefore, while some of the theory building of leader distance and AQ is rooted in the same content, the constructs have been operationalized as different things and leader distance is resultantly unable to measure relationships as comprehensively as AQ.

Measuring Acquaintanceship: Research Question

Following Blalock's (1982) description of operationalization through conceptualization and measurement, the preceding construct analysis outlined how AQ differs conceptually from similar constructs already in the OB and Leadership literatures. To satisfy the measurement aspect of Blalock's

(1982) process of operationalization, a survey study incorporating a revised version of the PAM and other related measures serves as an exploratory study investigating the following two research questions:

(1) Do the dimensions of an adapted PAM translate to a leader-follower context; and

(2) Is there convergent and divergent validity supporting the uniqueness of the AQ construct in the leader-follower context?

To examine these research questions, a revised version of the PAM was administered along with 2 convergent measures and 2 divergent measures to individuals working part-time or full-time who also report to a supervisor. I expected AQ would correlate with the similar constructs listed in the construct analysis above while, if it is truly a measure of relationships, it should not correlate with scales that are not measuring relationships or scales that lack any conceptual relevance. The dimensionality of the adapted measure of AQ was also investigated in an attempt to replicate Starzyk and colleagues' (2006) findings.

AQ's composition of different dimensions has been discussed and referenced throughout this paper as one of the strengths of the construct. AQ is thought to incorporate both quantity and quality of relationships. This requires scrutiny as it is one of the main distinguishing factors between AQ and some other constructs such as duration of relationship and LMX. If an exploratory factor analysis on the results of the revised PAM does not return dimensions of both quantity (Duration and Frequency of Interaction) and quality (Knowledge of Goals, Physical Intimacy, Self-Disclosure, and Social Network Familiarity) of relationships, this would challenge the uniqueness of AQ. Bäckström and colleagues (2009) conducted a principal components factor analysis and found 5 clear factors emerged instead of 6 (from Starzyk et al., 2006). All the items loaded appropriately onto the dimensions proposed by Starzyk and colleagues (2006) except for the items for the dimension of Social Network Familiarity, which loaded on the appropriate 6th factor but just not very strongly. Bäckström and colleagues' (2009) findings resemble the findings of the rigorous 3-study analyses by Starzyk and colleagues (2006) which included factor analyses, 3-week test-

retest reliability analysis, and convergent and divergent validity analyses, as explained earlier in this paper. Therefore, it is expected that AQ is a multi-dimension construct, as outlined by Starzyk and colleagues (2006) and that the revised AQ measure reflects a multi-dimension construct, consisting of dimensions describing both quality and quantity of acquaintanceship.

As part of this exploratory study, evidence for convergent and divergent validity are also explored. The constructs used to explore convergent validity in the present study are trust and leader-member exchange. As discussed above, trust is related to AQ in that both constructs measure some facet of a relationship. Previous studies have argued that familiarity between well-acquainted individuals is a potential precondition for trust (Currall & Epstein, 2003; Gulati, 1995; Luhmann, 1979). The items of Cook and Wall's (1980) survey inquire about ways managers are believed to act and managerial behaviours an employee would be aware of after being acquainted with the manager's previous actions— while these items are similar in the sense that they inquire about interactions between individuals, it does not cover all the dimensions measured by the PAM. Therefore, it is expected that trust and AQ will be positively correlated, but not so strongly that they describe the same thing.

LMX is the second construct used for investigating convergent validity. LMX is an important construct to use in assessing convergent validity because it also emphasizes the value of acknowledging the uniqueness of relationships as opposed to averaging employees' perceptions of their relationship with their leader (Dansereau et al., 1975). Based on the conclusions drawn above on the distinctions made between LMX and AQ, it is expected that these two constructs will positively correlate but again, not so strongly that they describe the same thing and are redundant.

As an aside, it may be worth discussing why leader distance is not used for investigating convergent validity. The main reason is that I am not surveying individuals all from the same organization. The different social weight or reputation assigned to each differing hierarchical level of different companies will make it hard to control for equal differences between levels of leader distance across organizations (especially if I inadvertently sample employees from an organization with a

mechanistic structure as opposed to an organization with an organic structure; Burns & Stalker, 1961) and may be best left for a larger study outside the scope of this exploratory study. While it is acknowledged that leader distance is an important construct to investigate for convergent validity, the operationalization of leader distance makes it difficult to investigate it within this study.

The constructs measured for divergent validity are test anxiety and ethical climate. To find evidence for divergent validity for this revised version of the PAM, measures that are not conceptually related to AQ should also not be statistically correlated with AQ. Perhaps the most important quality of these measures should be that they are not in any way measuring the level of self-disclosure in a relationship, since self-disclosure was used as one of the foundational concepts of AQ (Starzyk, et al., 2006). To this effect, the Test Anxiety Inventory (Taylor & Deane, 2002) and Ethical Climate Questionnaire (Peterson, 2002) are used for preliminary evidence of divergent validity.

The Test Anxiety Inventory (TAI) is useful as a measure of an individual trait independent of any other person. The items in this measure do not inquire about the employee's relationship with another person, just how an individual feels under a certain circumstance. I could not locate any studies showing a direct relationship between the TAI and AQ. Therefore, it is expected that the revised measure of AQ will not correlate with the TAI.

The second construct used for investigating divergent validity is the Ethical Climate Questionnaire (ECQ). The ECQ covers some ground not addressed using the TAI in that it is a construct developed within the context of OB. The ECQ measures unethical actions at work, including how one interacts with their environment as well as other employees. ECQ is focused on the unethical intentions or actions of an individual towards one's general environment (including people in that environment) as opposed to the state of the relationship between individuals where unethical actions occur. Because the ECQ is not an explicit measure of relationships, it is not expected that AQ will correlate with the ECQ.

To explore the dimensionality of the revised AQ measure and provide evidence for convergent and divergent validity, a survey is administered to working individuals who report to a supervisor. The methods of this exploratory survey study are outlined below.

Methods

Sample, Procedure, and Data Cleaning

Ethics approval (see Appendix 2) was gained for creating two short messages explaining the study with a link to an anonymous survey. One message was targeted towards Mechanical Turk (MTurk) Workers. MTurk is an online crowdsourcing marketplace where individuals pay others for services such as completing forms, spreadsheets, computations, or other similar tasks—including completing surveys. The posting was created on Amazon's MTurk website (https://www.mturk.com/) and a fee was paid to make the posting available to a set number of workers. The second message was prepared to distribute through social media websites (Facebook and LinkedIn) asking permission of group administrators to have the message about the survey posted in a group. In the interest of anonymity, a message was posted instead of contacting individuals so friends or acquaintances of the researcher could decide to participate or not without the researcher knowing.

Interested participants clicked on the survey link which opened an informed consent page before starting the survey hosted by Qualtrics. The survey can be seen in Appendix 3 and took on average 9 minutes, with a median of 7 minutes, to complete. Over the course of one month, 259 individuals clicked on the survey link, including those that did and did not fully complete the survey. 66.4% of participants (172 individuals) were recruited from MTurk and 33.6% (87 individuals) were recruited from social media. A total of 74 Participants were filtered out based on careless responding through: (1) attention check questions, and (2) removing individuals who completed the survey in under 40% of the median completion time. If a participant failed at least one attention check question, they were removed from the data set, resulting in 17.4% (30 individuals) of the total MTurk participants and 50.5% (44) of the total

social media participants being removed for failing attention check questions. The median time for completing the survey was 422 seconds (about 7 minutes) where the 40% cut-off for responding too fast is 168.8 seconds or less (about 3 minutes). Of the individuals passing both attention check questions, 8 individuals were removed for responding too fast. There were three individuals taking an excessively long time that were kept in the data set because it was thought they had left their browser window open and forgot to click 'submit'. In total, 177 participants' data sets remained after data cleaning was finished, resulting in a 31.7% of the data set being rejected. While this percentage of rejection may seem high, it is not entirely due to the quality of the data (i.e. rejection based on careless responding in complete surveys); 16.2% (42 individuals) of all individuals that clicked the survey link did not complete the survey (either they did not answer any questions or left part way through the survey), making up a little over half of the rejected data sets. Hinkin (1995, p.974) also suggests that "based on previous research and the studies included in [their] review, a sample of 150 would seem to be the minimum acceptable for scale development" so long as there is good internal reliability, which there is as seen in the results section of the present study. Therefore, a sample of 177 participants is sufficient for this exploratory study.

Measures

Full measures for all constructs are included in Appendix 3.

Acquaintanceship. The adapted PAM is the same as the original PAM but the original physical intimacy items were changed to read: "___ and I are physically affectionate, i.e., we might hug, shake hands, pat each other on the back," "___ and I have hugged each other, or patted each other on the back before," and "___ and I will often touch each other when we talk." The adapted PAM had adequate reliability in the present study (Cronbach's alpha = 0.88).

Trust. Trust was measured using Cook and Wall's (1980) questionnaire on interpersonal trust at work measuring opinions that people might hold about trust placed on coworkers and, more importantly

for this study, management. Respondents answered using a 7-point Likert scale where higher ratings indicate greater agreement with the statements indicating trust. Some of the items in Cook and Wall's (1980) trust questionnaire include "Management at my firm is sincere in its attempts to meet the workers' point of view," and "Management can be trusted to make sensible decisions for the firm's future." The trust scale had adequate reliability (Cronbach's alpha = 0.87) for only items inquiring about trust of management; and still had adequate reliability (Cronbach's alpha = 0.89) for items inquiring about trust of both management and coworkers.

Leader-Member Exchange. LMX, assessing the quality of exchange between two individuals, was measured using the 7-item LMX scale, one of the more popular versions of the LMX scale (Graen & Uhl-Bien, 1995; Martin et al., 2016). Some of the items in the 7-item scale (Graen et al., 1982; Seers & Graen, 1984) include "Do you know where you stand with your leader, do you usually know how satisfied your leader is with what you do?" and "Regardless of how much formal authority he/she has built into his/her position, what are the chances your leader would use his/her power to help you solve problems in your work?" The LMX scale had adequate reliability (Cronbach's alpha = 0.91).

Test Anxiety. The short form TAI (Taylor & Deane, 2002) is a 5-item questionnaire where respondents rate how often they experience anxiety or worry during test-taking using the following scale: 1 (almost never) to 4 (almost always). An example item is "during examinations I get so nervous that I forget facts I really know" (Taylor & Deane, 2002, p.131). The TAI had adequate reliability (Cronbach's alpha = 0.91).

Ethical Climate. The ECQ (Peterson, 2002) uses a scale of 1 (almost never) to 7 (almost always) for respondents to rate, in terms of the ethical behaviours at work, "how it really is in their company and not how they would prefer it to be." Higher ratings on the ECQ would suggest many unethical behaviours occur at the respective workplace. An example item is "exaggerate the benefits of a product or service" (Peterson, 2002, p.318). The ECQ had adequate reliability (Cronbach's alpha = 0.91).

Analysis

Exploratory Factor Analysis. An exploratory factor analysis was conducted on the adapted Personal Acquaintanceship Measure using SPSS version 23. Exploratory factor analyses are used for identifying an underlying structure to a set of variables. The exploratory factor analysis was used in to describe the variability among the 18 different items in the revised PAM, and to determine whether factors that measure both quantity and quality of acquaintanceship were present in the adapted measure. Exploratory factor analysis does not make assumptions about how many factors there will be. For the present study, a Principal Axis Factor Analysis was used to determine the rotated factor matrix and assess which items load onto which factors. An orthoginal rotation (equamax[1]) was used to be able to more clearly identify the factor loadings of each item, since orthoginal rotations do not assume correlation between factors. A screeplot with eigen values cut-off at >1 was also utilized in determining the appropriate number of factors.

Once this initial analysis was performed to determine which items loaded on which factors and the number of factors that were represented in the data, further analysis was conducted to determine whether the factors of AQ were correlated highly enough to be collapsed into one overall measure. In interpreting the dimensionality of the AQ, a maximum likelihood factor analysis was conducted with an oblique rotation (Obliman). Oblique rotations allow for correlations between the factors, allowing for interpretation of how distinct the dimensions are.

There is some discussion on the best practices regarding the use of statistical analyses for factor analysis (Costello & Osborne, 2005). Some argue that principal components analyses are computed without regard to the influence of latent factors on the underlying structure of the data, and therefore it is preferable to use a factor analysis. Meanwhile, others argue that the results of a principal component analysis and a factor analysis produce very similar results and either choice is sufficient for most tasks.

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[1] The factor analyses were conducted a second time but with varimax rotation instead of equamax rotation; the result was the same factor structure.

Starzyk and colleagues (2006, p.836) claim "the advantage to using both methods is they tend to converge when the data have good structure." The results of the Principal Axis Factoring Analysis are compared with the results of the Maximum Likelihood Factor Analysis described above. Items were considered to load strongly on any identified factor if they had a factor loading of 0.35 or above for only one factor.

Correlation Matrix. To interpret the evidence for convergent and divergent validity, a Pearson parametric correlation matrix was calculated using SPSS. This correlation matrix was used to explore evidence for convergent and divergent validity.

Results

Descriptive Statistics and Sample

Females composed 49.2% of participants. The average age of participants was 33.3 years old (SD = 9.7), average company tenure was 5.5 years (SD = 4.6), and average length of time they have known their current supervisor was 5.2 years (SD = 6.0). 90.4% of participants worked full-time, with the rest working part-time (only working individuals were asked to participate). The top three industries that participants most worked in were: healthcare and pharmaceuticals (14.1% of participants), retail and consumer durables (11.3% of participants), and manufacturing (9.6% of participants). The top three occupations that participants most held were: personal care and service occupations (13.6% of participants), computer and mathematical occupations (12.4% of participants), and business and financial operations occupations (10.2% of participants).

In order to justify combining the samples from MTurk and social media, independent samples t-tests on age and duration that participants knew their supervisor were conducted. This test revealed there was a significant difference between the samples in terms of age ($t(174) = 3.48$, $p < 0.002$) and duration that participants had been at their company ($t(173) = 2.05$, $p < 0.05$). However, there was no significant difference between duration that they had known their supervisor ($t(174) = 1.86$, $p > 0.05$). A Chi-square test revealed a significant difference in sex ($X(1) = 16.98$, $p < 0.001$) and status of part-time or full-time

$(X(1) = 5.30, p < 0.05)$. While there are some known sex differences (such as women score higher on the

PAM; Starzyk et al., 2006) and that people working full-time may have more opportunities to interact

with their supervisor, the samples were not separated because these were not the demographic variables of

interest. A demographic variable of interest was the duration that the participants had known their

supervisor; since the difference between the two samples' mean duration that participants had known their

supervisor was not statistically significant, the samples were not separated based on source. Additionally,

differences in age and part-time/full-time status were expected because the social media groups that the

survey link was shared to were mostly affiliated with universities and their students meanwhile MTurk is

open to any and all adults on the internet, given they had joined MTurk's worker pool and passed the

survey's screening questions[2]. Tables describing the t-test and Chi-square tests' results can be found in

Appendix 4.

<center><Insert Table 4.1 from Appendix 4 here></center>

<center><Insert Table 4.2 from Appendix 4 here></center>

Exploratory Factor Analysis and Dimensionality of Acquaintanceship

In the original development of the PAM, Starzyk and colleagues (2006) identified 6 factors in

their data: Social Network Familiarity, Physical Intimacy, Self-Disclosure, Duration, Frequency of

Interaction, and Knowledge of Goals. However, the Principal Axis Factoring Analysis in the current study

identified only 4 meaningful factors where: items 2, 4, 10, 11, and 16 of the PAM loaded strongly on

Factor 1; items 1 and 3 of the PAM loaded strongly on Factor 2; items 5, 8, and 12 of the PAM loaded

strongly on Factor 3; and items 6, 15, and 17 of the PAM loaded strongly on Factor 4. There were 5 items

that cross loaded on more than one factor with factor loadings over 0.35 and were therefore considered

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[2] Because of demographic differences between samples, the factor analyses were conducted with only the MTurk
sample and the same factor structure was found. Consequently, the samples remained combined. As an aside, a
factor analysis was not conducted with only the Social Media sample since there are not enough Social Media
participants to run a meaningful factor analysis.

bad items and discarded from the subsequent analyses; these include items: 7, 9, 13, 14, and 18. A table of the factor loadings of all the items can be found in Table 4.3 in Appendix 4.

<Insert Table 4.3 from Appendix 4 here>

The same factor analysis was computed again but without the items that cross loaded on more than one factor. A table of the factor loadings with only items that clearly loaded on one factor can be found as Table 4.4 in Appendix 4. Across both factor analyses: Factor 1 captures all the items of Physical Intimacy, and two of the items of Social Network Familiarity; Factor 2 captures two of the items of Duration; Factor 3 captures all the items of Self-Disclosure; and Factor 4 captures all of the items of Frequency of Interaction.

<Insert Table 4.4 from Appendix 4 here>

According to Hinkin and colleagues (1997), after exploratory factor analyses, items that cross load on more than one factor, or that load weakly, should be discarded and the internal consistency reliabilities for each scale should be re-calculated. Consequently, the PAM's reliability was recalculated without the cross-loading items and the PAM still had adequate reliability (Cronbach's alpha = 0.81). Adequate reliabilities were also found for the four meaningful factors found from the factor analyses: Factor 1: Physical Intimacy and Social Network Familiarity (Cronbach's alpha = 0.91), Factor 2: Duration (Cronbach's alpha = 0.92), Factor 3: Self-Disclosure (Cronbach's alpha = 0.82), and Factor 4: Frequency of Interaction (Cronbach's alpha = 0.79).

Among the discarded items are all the items for Knowledge of Goals, one item from Duration, and one item from Social Network Familiarity. Although the items for Knowledge of Goals were found to cross-load on more than one factor, they consistently cross-loaded on the same two factors of Factor 3 and 4. The one discarded item from Duration also seemed to load the most strongly on Factor 2 like the other items from Duration, but it also loaded strongly on another factor, unlike the other items from Duration. The one discarded item from Social Network Familiarity loaded very strongly on Factor 1 like the other

items from Social Network Familiarity, but it also loaded somewhat strongly on another factor. Therefore, this exploratory analysis indicated that the revised measure was composed of four factors.

Therefore, the results support the notion that AQ is a measure of both quantity (Factors 2 and 4) and quality (Factors 1 and 3) of a relationship between a leader and an employee and empirically corroborates the arguments made for the comprehensiveness of AQ as a measure of relationships.

Having determined an initial factor structure, I wanted to test whether these factors were correlated highly enough to be combined into an overall measure of AQ. To further examine the dimensionality of AQ, the maximum likelihood factor analysis described in the Methods section was computed to examine the factor correlation matrix and determine if the factors should be collapsed into one or whether keeping the four factors separate was justified. The strength of correlations in the correlation matrices of this study were classified as moderate (between $|r| = 0.36$ and $|r| = 0.67$) or weak (between $|r| = 0$ and $|r| = 0.35$) according to the classifications of strength of correlation coefficients as explained by Taylor (1990). The factor correlation matrix showed that Factor 1 (Physical Intimacy & Social Network Familiarity) correlated moderately with Factor 2 (Duration; $r = 0.47$), weakly with Factor 3 (Self-Disclosure; $r = 0.04$) and weakly with Factor 4 (Frequency of Interaction; $r = 0.30$). Factor 2 (Duration) correlates weakly and negatively with Factor 3 (Self-Disclosure; $r = -0.06$) and weakly with Factor 4 (Frequency of Interaction; $r = 0.22$). Factor 3 (Self-Disclosure) correlates weakly with Factor 4 (Frequency of Interaction; $r = 0.06$). The results of the factor correlation matrix can be seen as Table 4.5 in Appendix 4. The theoretical conclusions drawn from this factor correlation matrix will be explained in the Discussion section but because none of factors are correlating strongly with each other, it may be that these four factors should not be collapsed into one factor and they should be kept as the separate four factors.

<Insert Table 4.5 from Appendix 4 here>

The factor correlation matrix did not show strong positive correlations. However, in the correlation matrix of all the study variables, as seen in Table 4.6 of Appendix 4, Factors 1 and 2 are significantly, positively, and strongly correlated with the overall PAM (Factor 1: $r = 0.82$, $p < 0.001$; Factor 2: $r = 0.69$, $p < 0.001$), Factor 3 which is significantly, positively, and weakly correlated to the overall PAM (Factor 3: $r = 0.30$, $p < 0.001$), and Factor 4 is significantly, positively, and moderately correlated to the overall PAM (Factor 4: $r = 0.58$, $p < 0.001$).

<Insert Table 4.6 from Appendix 4 here>

Starzyk and colleagues (2006) explain the 6 dimensions of AQ are facet scales; in other words, they only describe one aspect, or facet, of an overall construct of AQ. On their own, each of the 6 dimensions are insufficient to explain AQ, but together they create a comprehensive measure of AQ. Therefore, in line with Starzyk and colleagues' (2006) theoretical conclusions, and also in line with the results of the factor correlations found in the present study, I conclude the 4 factors found should not be collapsed into one factor. However, each of the 4 factors cannot stand alone and be an adequate measure of AQ, therefore the overall PAM measure is used in subsequent exploration and analyses of the evidence for validity. Combining the factors/dimensions into one overall measure is based on Starzyk and colleagues' (2006) theoretical assertions that AQ is a multi-dimensional construct and that the dimensions are facets scales, not comprehensive scales on their own. Therefore, the overall PAM is used for subsequent exploration and analyses for the sake of using a comprehensive measure of AQ. The assumption that the factors found in the present study are also facet scales will be examined in the discussion section below.

Exploring Convergent and Discriminant Validity

To investigate the relationship between the different measures and explore evidence for convergent and divergent validity, a Pearson parametric correlation matrix was computed. In this

correlation matrix, the adjusted PAM was used with results from only the items that clearly loaded on one factor. The correlation matrix can be seen as Table 4.6 in Appendix 4.

As expected, the PAM is significantly correlated with both trust ($r = 0.33$, $p < 0.001$) and LMX ($r = 0.47$, $p < 0.001$). The Pearson correlation coefficient for both trust and LMX can be respectively classified as weak and moderate positive relationships with AQ. Because neither trust or LMX have a strong correlation with AQ, it is concluded that while these measures are correlated as expected, they are not measuring the same concept. Also, as expected, AQ did not significantly correlate with the TAI ($r = -0.14$, $p > 0.05$) and ECQ ($r = .05$, $p > 0.05$), two scales that do not measure facets of relationships pertaining to self-disclosure and familiarity.

Discussion

In the present study, I followed a two-part process for operationalization to propose acquaintanceship (AQ) as a unique construct in leadership literature (Blalock 1982). First, conceptualizing AQ in a leadership context was done through conducting a construct analysis where the construct and scales of AQ, duration of relationship, leader-member exchange (LMX), trust, and leader distance were compared. The theoretical conclusion of the construct analysis was that AQ is not a rebranding of the constructs it was compared to. Second, to measure AQ in a sample of employed individuals, empirically corroborate the theoretical conclusions of the construct analysis, and assess psychometric rigor of the AQ in a leadership context, an exploratory survey study was completed to investigate the dimensionality of AQ through factor analyses. The results of the survey provide: empirical support for the construct analysis's theoretical conclusion that AQ is a unique construct within leadership literature, initial evidence for convergent and divergent validity, and support for the notion that AQ is a multidimensional construct with dimensions measuring both quality and quantity of relationships.

Before introducing AQ into any research or models in the OB and leadership literature, it would be best to confirm AQ is not just a rebranding of a currently existing construct. The present exploratory

study determined AQ is a unique construct within OB and leadership literatures to the extent that the literatures were covered in this study. If it is determined that AQ is unique in a second study with a confirmatory factor analysis, then it may be a useful construct in investigating workplace relationships where currently used constructs are not as comprehensive or make assumptions about the nuances of relationships that are not completely accurate. Specifically, constructs like LMX and leader distance *stop at the door*, meaning they do not measure the extent of relationships outside the workplace context where, for example, coworkers develop relationships by going for food, drinks, movies, or generally socializing outside of work; other measures, specifically duration of relationship and trust may not comprehensively capture the whole relationship and may only be measures of some facets of a relationship.

The results suggest AQ is a comprehensive measure of relationships incorporating measures of both quantity and quality of relationships. However, the results did not provide evidence for 6 dimensions as was found by Starzyk and colleagues (2006), and instead only 4 meaningful factors were found. The four meaningful factors are: Factor 1 (Physical Intimacy & Social Network Familiarity), Factor 2 (Duration), Factor 3 (Self-Disclosure), and Factor 4 (Frequency of Interaction). One of the original dimensions, Knowledge of Goals, was not found in any of the 4 factors, but instead the items for Knowledge of Goals consistently cross loaded on Factors 3 (Self-Disclosure) and 4 (Frequency of Interaction); because Factors 3 and 4 are positively correlated, it could be the case that Knowledge of Goals is a function of both these factors. One explanation for this finding within the frame of the current sample is that participants interpreted the act of sharing their goals with their manager as a type of self-disclosure that occurs through frequent interaction and is not a topic that would come up in instances of low levels of interaction. Future research with a confirmatory factor analysis and a larger sample across a demographically diverse population would be useful for confirming this initial exploratory finding. Another interesting finding was that Factor 1 contained all the items of Physical Intimacy and most of the items of Social Network Familiarity. In this sample, Factor 1 seems to have acted as an overall measure of casual/personal socialization between the participant and their supervisor. This could be a result of the

context that AQ is applied to, and it could be that physical intimacy and social network familiarity are less salient aspects of relationships with one's boss. In other words, the context of the study (Johns, 2006) may have played a role in the factor loadings for Factor 1. Going forward, it would be interesting to see if other measures of personal connection or closeness in OB research could be compared to Factor 1 from the present study. Just a note of caution: it is important that the constructs of personal connection and closeness used for comparison have been developed in an OB context because AQ has already been compared to two different measures of closeness, a measure of liking, and a measure of loving—all developed in a social psychology context—in Starzyk and colleague's (2006) investigation of evidence of convergent validity for the PAM.

To reiterate the four meaningful factors found from the factor analyses of AQ: Factor 1 seems to be a measure of Physical Intimacy and Social Network Familiarity, Factor 2 seems to be a measure of Duration, Factor 3 seems to be a measure of Self-Disclosure, and Factor 4 seems to be a measure of Frequency of Interaction. Generally, these four factors correlated positively with each other except for Factors 2 (Duration) and 3 (Self-Disclosure) which were found have a weak negative correlation between each other. This is an interesting finding as it may be expected that all the factors would correlate positively with each other as was found with the 6 dimensions during Starzyk and colleagues' (2006) scale construction. Sprecher and Hedrick's (2004) longitudinal study of self-disclosure may shed some light on the present study's finding. These researchers found no significant changes in levels of self-disclosure over a 4-year period among partners who stayed in an intimate relationship for that duration. Sprecher and Hendrick's (2004) finding may explain why there is such a weak correlation between Factor 2 (Duration) and Factor 3 (Self-Disclosure), although caution is warranted in generalizing their findings to this situation since intimate relationships are not normally representative of leader-employee relationships; their results would also not explain why the correlation is negative.

A real-life scenario where Factor 2 (Duration) correlates negatively with Factor 3 (Self-Disclosure) could be instances of leader and follower developing a relationship to such an extent that the

leader feels less inclined to check in on the employee and as a result there is less self-disclosure between them. For example, consider Mossholder and colleagues' (1990) study that found as the duration of relationship between supervisor and employee increased, leadership effectiveness decreased. Mossholder and colleagues (1990) suggested that after an employee has gained a basic grasp of operations, directive behaviour from the supervisor may become unnecessary and in some cases is an impediment to the employee. In such a situation, Mossholder and colleagues' (1990) findings explain the present paper's findings suggesting increases in Factor 2 (Duration) correlate to decreases in Factor 3 (Self-Disclosure). However, if this was the case, one would expect Factor 2 (Duration) to then also negatively correlate with Factor 4 (Frequency of Interaction), which is not the case in the present study's results. Alternatively, it may be possible that the employees who were sampled chose to disclose less about themselves to their supervisors as time went on, possibly because the nature of the relationship changed over time. However, Cozby's (1973) literature review of self-disclosure mentions several studies that found self-disclosure between both romantic and non-romantic pairs of individuals increased along with duration of relationship, regardless of whether liking also increased or decreased.

While it may be that the context of leader-employee relationships differ enough that Self-Disclosure operates differently than it does with intimate relationships, Factor 3 (Self-Disclosure) has stood-out throughout the analyses. It correlates the weakest with the overall PAM among all four factors, and it does not significantly correlate with the other factors in the Pearson parametric correlation matrix (Table 4.6 in Appendix 4) while the other factors are all significantly correlating with one another. Another unique characteristic of Factor 3 (Self-Disclosure) over the other factors is that its items are all composed of negatively worded items and the results may have been influenced by the way participants were responding to the questionnaire. Therefore, it is possible the findings with respect to Factor 3 (Self-Disclosure) are a result of the wording of the items. It could also be a problem with the data in that a larger sample would find all factors correlate positively with each other, as was found in Starzyk and

colleagues' (2006) study. Avenues of addressing these limitations are discussed in the future directions section below.

While the construct analysis conceptualized the AQ construct a singular entity, the subsequent analysis and discussion of the construct has had a heavy focus on the individual four factors that emerged in the analysis as opposed to one aggregated factor that describes the whole AQ construct. This is because the different dimensions of AQ and the 3 items corresponding to each dimension in Starzyk and colleagues' (2006) paper are considered facet scales, where facet scales measure a unique aspect of a construct[3]. The trade-off is that while the PAM as a whole is a succinct measure of AQ, each dimension is not a comprehensive scale on its own. Because AQ is only a comprehensive construct when looking at all its dimensions together, it was important to analyze the results of the factor analyses with a focus on the relationships between the factors to determine if they are behaving as one would expect facet scales to behave (i.e. correlate to the overall measure). Each of the factors did significantly and positively correlate with the overall PAM, and—more importantly—the revised measure addresses and measures both quality and quantity of AQ in the context of this study. The statistical analyses and subsequent discussion of the analyses thus far concluded that the assumption of the four factors being facet scales is justified, and therefore the AQ construct is a comprehensive construct in an OB context.

In investigating leader-follower relationships, AQ seems like a good candidate to consider incorporating into future research. The nuances of a relationship captured by the measurement of the PAM are details not found in other scales measuring relationships or facets of relationships. The studies cited in this paper also speak to the scarcity of relevant research on self-disclosure and familiarity within business research. This is a gap in the literature that can be addressed by using the PAM in OB and leadership research studies. Possible uses of AQ are outlined below in the future directions section.

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[3] For example, the Four I's of Transformational Leadership as explained by Barling (2014) could be considered facet scales of Transformational Leadership. For another example of how facet scales are used in research, see Costa Jr., McCrae, and Dye's (1991).

Limitations

The present study encountered the same limitation as Bäckström and colleagues (2009) in that the PAM, by virtue of being developed in a social psychology context, had intrusive physical intimacy items that would be inappropriate in a workplace setting. However, the reason this study was conducted was to see if the PAM retains its psychometric rigor in a new context. The extent that the PAM is limited by the social psychology context it was developed in needs to be investigated in future studies. To fully assess the PAM's psychometric rigor, another sample would be needed to conduct a confirmatory factor analysis as a follow up to the exploratory factor analysis in the present study.

Follow-up studies could also be designed in such a way to address the limitation of not being able to incorporate leader distance into the present study. It was not possible to compare leader distance between participants in the present study the same way AQ was compared between participants because leader distance is dependent on organizational hierarchy, and the participants were sampled from different organizations in different industries that would have had differently structured organizational hierarchies. If participants of a follow-up study were all sampled from one organization, then AQ and leader distance would be more easily compared.

A second sample would also be used to address some concerns with the quality of the data. For example, one concern was the general quality of participants sourced from social media. About 51% of participants from the social media sources were rejected compared to about 17% of the participants from the MTurk source due to failing attention checks or responding too fast. Loosing half the data from a source is quite a large portion and questions the quality of the remaining data. Sampling from two distinct pools of participants also introduced some differences between participants in the overall sample. But I note here that there was no statistically significant difference in the demographic variable of interest (duration that participant had known supervisor) and also no difference between the factor structure resulting from a factor analysis of both samples combined compared with a factor analysis of just the MTurk sample.

Another possible limitation in the data are respondents who knew their supervisor for longer than they were at an organization. One participant working in "logging operations and land development" knew their supervisor for 51 years but was with a company for 9 years. Another participant working in "soil testing for farmers" knew their supervisor for 9 years but was with the company for 8 years. It is conceivable that within such niche industries, one might interact with a specific community of professionals, explaining why someone may know their supervisor for longer than they have been working at an organization. Some of these participants could have also been working for a friend or family member in which case duration that they had known their supervisor would also be longer than the time they had spent with a company. There were a total of 19 participants (10.7%) who knew their supervisor for longer than they had been at their company. For the purposes of data analysis, participants fitting this pattern were not removed. Future research should inquire the nature of the participants' relationships with their leader (i.e. "Did you personally know your supervisor prior to starting your job at your current workplace?") to aid in making a decision about if these types of people should be removed from analysis.

Finally, unaccounted norms of workplace-appropriate behaviours and cultural power distance are other limitations. Some of the variation in AQ could be due to differences in organizational culture where the development in closeness, self-disclosure, and familiarity may be supported or not supported in different organizations. For example, a very internally competitive organization might have a culture of knowledge hoarding (Michailova & Husted, 2003), prompting less interactions and exchanges of information between employees and decreasing AQ. As another example, leaders are forced by law to co-operate with employees by contacting employees and maintaining communication in specific situations such as during instances of recovery in return-to-work programs as outlined in s. 40(1) (a) of the *Workplace Safety and Insurance Act* (1997); in such situations the scores on the PAM may be difficult to interpret because there may be high ratings of Frequency of Interaction but possibly low ratings for the other dimensions. More conservative cultures or cultures with high power distance may find some of the

PAM items uncomfortable (ex. "I go to parties with ___") and would score low on those items'

dimensions. These various organizational and national cultures may also be influencing the ratings of the

PAM.

Future Directions

There are many future directions to explore with AQ, and many of them are needed to address the

limitations discussed above. The immediate future research direction should be conducting a second study

to do a confirmatory factor analysis to confirm that the four factors found in the results of the present

study are not just a function of the current sample. In a confirmatory factor analysis, trust, LMX, and

leader distance could be analyzed to justify claiming AQ is truly separate from them. Using a sample of

employees from a single organization would also make it easier to control for organizational culture and

compare AQ to leader distance, since leader distance is sensitive to differences in organizational structure

and organizational structure differs across organizations.

The confirmatory factor analysis can also be used to address issues with the negatively worded

items of Factor 3 (Self-Disclosure). The item wording (all negative) may have contributed to the way

Factor 3 (Self-Disclosure) was correlating with the other factors. Several positively worded items can be

created for Self-Disclosure and negatively worded items can be created for the other dimensions of AQ. A

list of all 18 current items and any new items can be administered to Subject Matter Experts (SMEs; such

as practitioners and researchers in the OB field) to group items into the different 6 dimensions as they

think the items should fit. If the SMEs' item groupings are similar to the way Starzyk and colleagues

(2006) arranged the items into the different 6 dimensions, then it will provide some evidence for face

validity for the PAM. This new list can also be used in a confirmatory factor analysis to see if different

positive or negative wordings of the items will have an impact on how the factors correlate with each

other. This will help assess the reason the factors correlated with each other as they did in the present

study (i.e. is it due to the way participants responded or is it due to the PAM being used in a leader-

follower setting).

Following a confirmatory factor analysis, better adapting the PAM for use in leadership research would be a next step. While some items of the inappropriate PAM items (Physical Intimacy items) were revised for the present study following Bäckström and colleagues' (2009) adaptations, there needs to be an assessment of whether these items elicit varying evaluations of physical intimacy. For example, do the adapted physical intimacy items of hugging, patting on the back, and shaking hands occur equally for everyone at a friendly workplace? In this instance, the Physical Intimacy items are influenced by group norms as opposed to one's regular inclination to physically interact with someone who they are or are not acquainted with. Starzyk and colleagues (2006) also concede that these items may need improvement since their scores may be restricted in non-romantic relationships. These items may also be differently perceived in same sex versus opposite sex relationships. In the current climate of #MeToo (Johnson, 2018), it may be an especially useful question to determine whether the inclusion of these items adds to prediction of outcomes.

Comparing the role of Self-Disclosure in intimate versus leader-employee relationships could be a focus of future research that sheds further light on the results of the present study. For example, how does self-disclosure function differently in a family-owned business employing close relatives as opposed to a franchise employing unrelated individuals? Family dynamics can vary largely and while one family may be more open to each other, others may be more closed off. In the context of family-owned businesses, relatedness of employees could be explored as a boundary condition for Self-Disclosure and AQ.

Identity is another boundary condition worth investigating. Identities are defined as how an individual defines themselves (for example, as members of particular groups or as individuals with specific roles: mother, manager, basketball player, etc.; Rothbard & Ramarajan, 2009). Individuals may have multiple identities: one identity used within the workplace and another outside the workplace. "Identities are often triggered or activated one at a time in relevant domains" (Rothbard & Ramarajan, 2009, p.125), but conflicting identities may be activated simultaneously if more than one context is

perceived at the same time. An interesting example is a family-owned business where the environment would simultaneously trigger multiple identities for the same person such as the identity of a mother and the identity of a manager. In instances where a person may have multiple identities active, they may not disclose specific information about themselves or events in their lives for the sake of a professional working relationship—or they may disclose more information about themselves for the sake of a more cohesive relationship. Identity might change the extent of self-disclosure, and there is an opportunity in future research to see how identity changes subsequent PAM ratings and the development of familiarity and relationships between individuals.

Peer-to-peer relationships should also be investigated when selecting the next sample for a confirmatory factor analysis. The use of the PAM in the present study is in a leader-follower context, but the PAM can be used in a peer-to-peer context since it was originally developed in a social psychology context where the relationship dynamics and status differences are closer to peer-to-peer relationships than to leader-follower relationships. While the opening of this thesis argues that employees leave organizations because of bosses, another contributor to employees leaving organizations are the state of friendships at work. Kelloway, Barling, Francis, and Turner (2010) suggest intimate relationships with coworkers is an aspect of loving one's job and can subsequently impact turnover. The PAM can be used to complement the research on love of one's job and further contribute to the literature on how workplace relationships interact with workplace outcomes such as turnover.

Once an adapted measure of AQ has been shown to be valid and useful in multiple studies, it can be used to explore relationships in the literature that may not have been comprehensively measured by existing scales. To this end, leader-follower relationships can be investigated using AQ to answer questions such as: does AQ add to the prediction of various outcomes over and above existing variables?; does leadership have a stronger impact on employee outcomes (such as motivation, well-being, loyalty, burnout, commitment, etc.) when leaders are better acquainted with employees?; does high/low leader-follower AQ impact group level outcomes (such as group cohesiveness, deviant behaviours like

gossiping, etc.)?; and do organizational level concepts (such as diversity, company culture, turnover, etc.) impact development of leader-follower AQ?

Finally, as Starzyk and colleagues (2006) have also suggested, a longitudinal study on the change of AQ over time would be useful. Starzyk and colleagues (2006) suggested a longitudinal study could reveal if people are sensitive to change in AQ or if changes in AQ are accompanied by changes of other feelings (such as intimacy, closeness, affection, or even love of one's job). A longitudinal study of AQ in the workplace may be useful for investigating if workplace relationships develop differently than personal relationships outside of the workplace, and in what way(s) they are different. This would be an extension on Bäckström and colleagues' (2009) research which found there was a difference in AQ between a salesperson's friends and customers. A longitudinal study of AQ in the workplace would also be able to explore how changes in AQ in conjunction with differences in leadership styles impacts outcomes such as psychological well-being. Perhaps AQ with colleagues may be more important than AQ with a leader. These are all questions that can be addressed once future studies confirm the validity of the new measure.

Conclusion

This exploratory study consists of a construct analysis and empirical survey study that reveals acquaintanceship (AQ) to be a unique construct that may be useful in the leadership literature. The survey study corroborates the theoretical conclusions of the construct analysis. Studying AQ as it characterizes and relates to leader-follower relationships may enable researchers to augment models of leader-follower relationships and employee outcomes. The challenge with using AQ is that it is a measure developed outside the organizational behaviour (OB) and leadership literature. Introducing AQ into OB and leadership research requires confirming that a construct does not already exist that describes and measures the same thing as acquaintanceship. The present study reviews and compares acquaintanceship, duration, LMX, trust, and leader distance to investigate how these constructs are defined and measured in the literature, and if they can be distinguished from the construct of AQ. While there are some similarities between these constructs, it seems that many of these constructs do not consider the development of

relationships outside the workplace, AQ is a relatively more comprehensive construct, and AQ is not a rebranding of any of the other constructs compared in this paper. The results of exploratory factor analyses are discussed, and it is concluded that AQ could be used in research to further identify how an employee's level of familiarity with their leader will impact outcomes of leadership styles.

So why should AQ be introduced into OB and leadership literature? When one in two employees have left a job because of a manager (Gallup, 2015), it is evident leader-follower relationships play an important role in employee, group, and organizational outcomes. Barling's (2014, p.24) comment that "the best of leadership can be expressed through small but meaningful behaviours enacted at the right time" expresses the sentiment that the nuances of leader-follower interactions and relationships are important. AQ is a relatively comprehensive construct for measuring relationships and may be able to augment models currently used to explain relationship outcomes within the literature.

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Appendix 1: Construct Analysis Summary

Table 1.1: Differences between acquaintanceship and other constructs used within the OB literature measuring some facet of relationships.

Acquaintanceship compared to…	Similarities	Differences
Duration	- Duration sometimes used as a proxy for acquaintanceship - Duration is a dimension of acquaintanceship	- Duration does not explicitly measure quality of interaction - There are 5 other dimensions of a relationship measured by the PAM
LMX	- Both constructs are characterized by similar themes such as provision of information and understanding - Both emphasize uniqueness of relationships	- LMX places all its emphasis on the quality of interaction and does not measure the quantity of interaction while the PAM measures both quantity and quality. - LMX is contextualized in a workplace context while the PAM measures information about interactions in a general social context (both inside and outside a workplace context)
Trust	- Both constructs describe the knowledge gained about a person through past interactions and past self-disclosure	- Trust describes a person's willingness to take a risk with another person while acquaintanceship describes how familiar one person is with another - Trust can build over time and can also be almost immediately destroyed with evidence of untrustworthiness while acquaintanceship should only ever increase over time - Acquaintanceship can be a precondition for trust, but it does not guarantee it
Leader Distance	- Both constructs measure frequency of interaction and the degree of understanding and intimacy characterizing social relations	- The measurement of social distance is not very rigorous and uses differences in organizations' hierarchical structure to measure distance. Differences in organizations' hierarchies may be difficult to generalize to other organizations. Meanwhile, the PAM uses an empirically validated scale that stays consistent regardless of what organization it is administered to. - The different levels of acquaintanceship could possibly be measured at the same level of leader distance, suggesting the PAM and Leader Distance are different constructs - Bäckström and colleagues' (2009) use of the PAM suggests different levels of acquaintanceship can be measured at the same hierarchical level, supporting the above point - Leader distance may have a hard time capturing differences in quality of relationship (for example: very good vs. somewhat good; somewhat good vs. neither good nor bad) while the PAM can capture these differences in the rating provided. - Differences in hierarchy are difficult to measure outside the workplace to investigate leader distance; the PAM items are general enough to measure relationship development outside the workplace

Appendix 2: Ethics Approvals

MEMORIAL
UNIVERSITY

Interdisciplinary Committee on
Ethics in Human Research (ICEHR)

St. John's, NL Canada A1C 5S7
Tel: 709 864-2561 icehr@mun.ca
www.mun.ca/research/ethics/humans/icehr

August 21, 2017

ICEHR No. 20180700-BA

Mr. Mahyar Garmsiri
Faculty of Business Administration
Memorial University of Newfoundland

Dear Mr. Garmsiri:

Thank you for your submission to the Interdisciplinary Committee on Ethics in Human Research (ICEHR) entitled *"Familiarity with your Boss"* in which you are listed as the Principal Investigator.

The Committee has reviewed the application and agrees that the proposed research on leadership and employee and supervisor relations is valuable and interesting, and is of low risk to the participants. However, before the ICEHR can complete its review and certify that your project is in compliance with the guidelines of the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS2)*, the following issues need to be addressed.

1. The risk section of the consent form states that "the questionnaire items do not probe intrusively and are simply questions about level of energy or recent mood. Emotional risks are very low." This needs to be rephrased, as it is an understatement for anyone who has suffered sexual harassment or emotional abuse from his/her supervisor; and questions about this are asked in the Abusive Supervision Measure. Further, the 'what you will do' section of the consent form should state that some questions about the worker-boss relationship may be sensitive and could be upsetting to some participants. Relatedly, please add the counselling referrals to the risk section of the consent form, as some participants may not click to the end of the survey and therefore, presumably, will not receive the debrief form. As well, there should be a final opportunity to withdraw after the debrief. In addition, the instructions to the survey should reiterate that participants can skip any questions that they do not wish to answer.

2. As some of the survey questions are about theft and embezzlement, the consent form should explicitly state that participants' employer will not know that s/he has completed the survey and will not be able access the data / responses.

3. The MTurk recruitment script needs to say that the study is "… about <u>mental health</u>, well-being and …" as in the social media script. Both scripts should state that you are seeking employees who report to a supervisor. Also, please add the ICEHR approval statement to both scripts.

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4. Compensation is not a research benefit, and needs to be moved to its own separate section in the MTurk consent form. Relatedly, the second sentence needs to be reworded to affirmatively instruct participants "if you choose to withdraw from the study, please click through to the end of the survey to input your ID code if you wish to receive compensation; otherwise it will not be possible to pay you."

5. The reporting results section of both consent forms needs to state that your thesis will be publically available via the QEII library, and include the url.

6. The time of 15 minutes to complete the survey seems underestimated, and should be revised in the recruitment scripts and consent forms.

Please respond to the above items via your Researcher Portal account by uploading a 'Response Summary' and any revised supporting documents in the *Attachments* tab of your application. Do not edit the text in the application tabs, as these changes cannot be tracked or highlighted. Changes related to the sections / tabs of the application must be explained in your Response Summary, and you must **highlight any revisions** to supporting documents. A 'Response Summary Template' is available in the *Attachments* tab of your application. The Committee will review and advise on your response as expeditiously as possible.

A response is required no later than **six months** from the date of this letter. If you do not respond within this timeframe your file will be closed, and you will be required to submit a new application for ethics review if you wish to proceed. Please be reminded that the *TCPS2* does not allow data to be collected from potential participants for the proposed research until ethical clearance from the ICEHR has been granted.

Yours sincerely,

Russell J. Adams, Ph.D.
Chair, Interdisciplinary Committee on
    Ethics in Human Research
Professor of Psychology and Pediatrics
    Faculties of Science and Medicine

RA/th

copy: Supervisor – Dr. Kara Arnold, Faculty of Business Administration

MEMORIAL UNIVERSITY

Interdisciplinary Committee on Ethics in Human Research (ICEHR)

St. John's, NL Canada A1C 5S7
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ICEHR Number:	**20180700-BA**
Approval Period:	September 13, 2017 – September 13, 2018
Funding Source:	FBA Internal Funding
Responsible Faculty:	Dr. Kara Arnold Faculty of Business Administration
Title of Project:	*Familiarity with your Boss*

September 13, 2017

Mr. Mahyar Garmsiri
Faculty of Business Administration
Memorial University of Newfoundland

Dear Mr. Garmsiri:

Thank you for your correspondence of September 8, 2017 addressing the issues raised by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) concerning the above-named research project.

ICEHR has re-examined the proposal with the clarification and revisions submitted, and is satisfied that the concerns raised by the Committee have been adequately addressed. In accordance with the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS2)*, the project has been granted *full ethics clearance* to September 30, 2018. ICEHR approval applies to the ethical acceptability of the research, as per Article 6.3 of the *TCPS2*. Researchers are responsible for adherence to any other relevant University policies and/or funded or non-funded agreements that may be associated with the project.

If you need to make changes during the project, which may raise ethical concerns, please submit an amendment request with a description of these changes for the Committee's consideration. In addition, the *TCPS2* requires that you submit an annual update to ICEHR before September 30, 2018. If you plan to continue the project, you need to request renewal of your ethics clearance, and include a brief summary on the progress of your research. When the project no longer involves contact with human participants, is completed and/or terminated, you are required to provide the annual update with a final brief summary, and your file will be closed.

Annual updates and amendment requests can be submitted from your Researcher Portal account by clicking the *Applications: Post-Review* link on your Portal homepage.

We wish you success with your research.

Yours sincerely,

Kelly Blidook, Ph.D.
Vice-Chair, Interdisciplinary Committee on
Ethics in Human Research

KB/lw

cc: Supervisor – Dr. Kara Arnold, Faculty of Business Administration
        Associate Dean, Research, Faculty of Business Administration

Appendix 3: Survey

Acquaintanceship scale

Questions:

1 I have known ___ for many years.

2 ___ and I are physically affectionate, i.e., we might hug, shake hands, pat each other on the back.

3 I have known ___ for a long time.

4 I go to parties with ___.

5 ___ often hides his/her true feelings from me.

6 Seeing ___ is part of my weekly routine.

7 I know what ___'s goals are.

8 ___ hides his/her true feelings from me.

9 ___ has told me about his/her interests.

10 I have spent time with ___ and his/her friends.

11 ___ and I have hugged each other, or patted each other on the back before.

12 ___ avoids showing his/her true feelings about me.

13 ___ and I go way back.

14 I am familiar with ___'s friends.

15 I see ___ a lot.

16 ___ and I will often touch each other when we talk.

17 Seeing ___ is part of my daily routine.

18 ___ has told me what his/her goals are.

Response Options:

1 Definitely false or strongly disagree

2 Mostly false or disagree

3 About equally true or false, cannot decide, or neutral

4 Mostly true or agree

5 Definitely true or strongly agree

Reverse Code Items: 5, 8, 12

Trust scale

Questions:

1 Management at my firm is sincere in its attempts to meet the workersí point of view.

2 Our firm has a poor future unless it can attract better managers.

3 If I got into difficulties at work I know my workmates would try and help me out.

4 Management can be trusted to make sensible decisions for the firmís future.

5 I can trust the people I work with to lend me a hand if I needed it.

6 Management at work seems to do an efficient job.

7 I feel quite confident that the firm will always try to treat me fairly.

8 Most of my workmates can be relied upon to do as they say they will do.

9 I have full confidence in the skills of my workmates.

10 Most of my fellow workers would get on with their work even if supervisors were not around.

11 I can rely on other workers not to make my job more difficult by careless work.

12 Our management would be quite prepared to gain advantage by deceiving the workers.

Response Options:

1 Completely disagree

2 Disagree

3 Somewhat disagree

4 Neither agree or disagree

5 Somewhat agree

6 Agree

7 Completely agree

Reverse Code Items: 2, 12

Items labelled by Cook and Wall (1980) to be measuring faith in intentions of:

Peers: 3, 5, 8

Management: 1, 7, 12

Items labelled by Cook and Wall (1980) to be measuring confidence in actions of:

Peers: 9, 10, 11

Management: 2, 4, 6

Leader-Member Exchange

Question 1: Do you know where you stand with your leader, do you usually know how satisfied your leader is with what you do?

Response Options:

1 Rarely

2 Occasionally

3 Sometimes

4 Fairly often

5 Very often

Question 2: How well does your leader understand your job needs?

Response Options:

1 Not a bit

2 A little

3 A fair amour

4 Quite a bit

5 A great deal

Question 3: How well does your leader recognize your potential?

Response Options:

1 Not at all

2 A little

3 Moderately

4 Mostly

5 Fully

Question 4: Regardless of how much formal authority he/she has built into his/her position, what are the chances your leader would use his/her power to help you solve problems in your work?

Response Options:

1 None

2 Small

3 Moderate

4 High

5 Very high

Question 5: Again, regardless of formal authority your leader has, what are the chances that he/she would "bail you out" at their own expense?

Response Options:

1 None

2 Small

3 Moderate

4 High

5 Very high

Question 6: I have enough confidence in my leader that I would defend/justify his/her decision if he/she was not present to do so?

Response Options:

1 Strongly disagree

2 Disagree

3 Neutral

4 Agree

5 Strongly agree

Question 7: How would you characterize your working relationship with your leader?

Response Options:

1 Extremely ineffective

2 Worse than average

3 Average

4 Better than average

5 Extremely effective

Test Anxiety Inventory

Questions:

1 During tests I feel very tense.

2 I wish examinations did not bother me so much.

3 I seem to defeat myself while working on important tests.

4 I feel very panicky when I take an important test.

5 During examinations I get so nervous that I forget facts I really know.

Response Options:

1 Almost never

2 Not usually

3 Often

4 Almost always

Ethical Climate Questionnaire

1 Exaggerate the benefits of a product or service.

2 Calling in sick to take a day off even though other employees will have to make up for the slack.

3 Stealing inexpensive company items such as pens and stationary.

4 Give gifts/favours in exchange for preferential treatment.

5 Divulge confidential information about a fellow employee.

6 Lying to conceal one's errors.

7 Falsifying time/quality/quantity reports.

8 Not reporting others for violating company policy and rules.

9 Padding an expense account by up to 10%.

Response Options:

1 Almost never

2 Rarely occurs

3 Does not usually occur

4 Every once in a while

5 Occurs moderately

6 Usually occurs

7 Almost always

Demographics

Question: What is your age in years?

Response Options: (select a year)

Question: What is your sex?

Response Options:

Female

Male

Other, please specify

Question: Which of the following best describes your current occupation? If your occupation is not listed, please specify

Response Options:

1 Management occupations

2 Business and financial operations occupations

3 computer and mathematical occupations

4 architecture and engineering occupations

5 life, physical and social science occupations

6 community and social service occupations

7 legal occupations

8 legal occupations

9 education, training, and library occupations

10 arts, design entertainment, sports, and media occupations

11 healthcare practitioners and technical occupations

12 healthcare support occupations

13 proitective service occupations

14 food preparation and serving related occupations

15 building and grounds cleaning and maintenance occupations

16 personal care and service occupations

17 sales and related occupations

18 office and administrative support occupations

19 construction and extraction occupations

20 installation, maintenance, and repair occupations

21 production occupations

22 transportation and materials moving occupations

23 I am currently not employed

24 other (other please specify)

Question: Which of the following best describes the principal industry of your organization? If your principal industry of your organization is not listed, please specify

Response Options:

1 advertising and marketing

2 agriculture

3 airlines and aerospace (including defense)

4 automotive

5 business support and logistics

6 construction, machinery, and homes

7 education

8 entertainment and leisure

9 finance and financial services

10 food and beverages

11 government

12 healthcare and pharmaceuticals

13 insurance

14 manufacturing

15 non-profit

16 retail and consumer durables

17 real estate

18 telecommunications, technology, internet and electronics

19 transportation and delivery

20 utilities, energy, and extraction

21 other (please specify)

Question: how long have you worked at your company in years?

Response Options: (select a year)

Question: how long have you known your current supervisor in years?

Response Options: (select a year)

Question: do you work full time or part time?

Response Options:

1 Full-time

2 Part-time

Appendix 4: Survey Results Tables

Table 4.1: T-test results on demographic differences between participants sampled from Mturk versus participants sampled from Social Media.

T-test Results of Differences between Age, Duration with Company, and Duration with Supervisor					
Demographic Variable (in years)	Source	Mean	Standard Deviation	t(df)	p
Age	Mturk	34.7	9.0	3.48(174)	p = 0.001*
	Social Media	28.9	10.6		
Duration with company	Mturk	5.9	3.9	2.05(171)	p = 0.042*
	Social Media	4.2	6.2		
Duration with supervisor	Mturk	5.6	6.1	1.86(174)	p = 0.065
	Social Media	3.7	5.3		

** $p < 0.001$ there is a significant difference between groups

* $p < 0.05$ there is a significant difference between groups

Table 4.3: Chi-square results on demographic differences between participants sampled from Mturk versus participants sampled from Social Media.

Chi-square Results of Differences between Sex and Status of Full-time/Part-time				
Demographic Variable	Source	n (Size of Group)	X(df)	p
Sex: Female	Mturk	54	16.98(1)	p < 0.001**
	Social Media	33		
Sex: Male	Mturk	79		
	Social Media	10		
Full-Time	Mturk	125	5.30(1)	p = 0.021*
	Social Media	35		
Part-Time	Mturk	9		
	Social Media	8		

** $p < 0.001$ there is a significant difference between groups

* $p < 0.05$ there is a significant difference between groups

Table 4.3 Factor loadings of all items in the Personal Acquaintance Measure.

Items	Factor Loadings			
	Factor 1 (Physical Intimacy & Social Network Familiarity)	Factor 2 (Duration)	Factor 3 (Self-Disclosure)	Factor 4 (Frequency of Interaction)
16. ___ and I will often touch each other when we talk.	**.77**	.21	-.10	.04
10. I have spent time with ___ and his/her friends.	**.77**	.25	.05	.08
2. ___ and I are physically affectionate, i.e., we might hug, shake hands, pat each other on the back.	**.76**	.22	.04	.16
4. I go to parties with ___.	**.750**	.26	-.06	.01
11. ___ and I have hugged each other, or patted each other on the back before.	**.71**	.25	.03	.24
14. I am familiar with ___'s friends.	**.71**	**.35**	.11	.18
1. I have known ___ for many years.	.19	**.90**	.02	.13
3. I have known ___ for a long time.	.16	**.89**	.08	.21
13. ___ and I go way back	**.43**	**.66**	-.06	.15
8. ___ hides his/her true feelings from me.	-.10	.01	**.85**	-.02
5. ___ often hides his/her true feelings from me.	-.17	-.01	**.75**	-.04
12. ___ avoids showing his/her true feelings about me.	.04	-.03	**.67**	.05
7. I know what ___'s goals are.	.21	.17	**.48**	**.38**
18. ___ has told me what his/her goals are.	.39	.21	**.45**	**.41**
9. ___ has told me about his/her interests.	.26	.10	**.44**	**.38**
6. Seeing ___ is part of my weekly routine.	-.02	.00	.00	**.76**
17. Seeing ___ is part of my daily routine.	.03	.17	.04	**.73**
15. I see ___ a lot.	.14	.27	.05	**.65**
Percentage of Variance Explained With Discarded Items	35.47	16.18	10.40	7.63

Table 4.4: Factor loadings of the revised Personal Acquaintance Measure.

Items	Factor Loadings			
	Factor 1 (Physical Intimacy & Social Network Familiarity)	Factor 2 (Duration)	Factor 3 (Self-Disclosure)	Factor 4 (Frequency of Interaction)
16. ___ and I will often touch each other when we talk.	**.78**	.18	-.12	.04
2. ___ and I are physically affectionate, i.e., we might hug, shake hands, pat each other on the back.	**.79**	.18	.01	.15
11. ___ and I have hugged each other, or patted each other on the back before.	**.76**	.22	.02	.24
4. I go to parties with ___.	**.75**	.26	-.06	.01
10. I have spent time with ___ and his/her friends.	**.73**	.22	-.01	.06
1. I have known ___ for many years.	.22	**.89**	-.01	.13
3. I have known ___ for a long time.	.20	**.89**	.04	.20
8. ___ hides his/her true feelings from me.	-.07	.02	**.85**	.01
5. ___ often hides his/her true feelings from me.	-.12	.00	**.84**	.00
12. ___ avoids showing his/her true feelings about me.	.07	.01	**.64**	.05
17. Seeing ___ is part of my daily routine.	.07	.16	.05	**.83**
15. I see ___ a lot.	.17	.25	.05	**.68**
6. Seeing ___ is part of my weekly routine.	-.01	.01	-.02	**.68**
Percentage of Variance Explained Without Discarded Items	34.69	17.82	14.13	9.19

Table 4.5: Factor correlations of the four factors in the revised Personal Acquaintance Measure.

Factor	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 4**
Factor 1 (Physical Intimacy & Social Network Familiarity)	1			
Factor 2 (Duration)	.47	1		
Factor 3 (Self-Disclosure)	.04	-.06	1	
Factor 4 (Frequency of Interaction)	.30	.22	.06	1

Table 4.6: Means, Standard Deviations (SD), and correlations between variables in the study.

	Mean	SD	PAM	Factor 1	Factor 2	Factor 3	Factor 4	LMX	Trust	TAI	ECQ
PAM	2.00	0.70	**.81**								
Factor 1	1.27	1.14	.82**	**.91**							
Factor 2	2.20	1.29	.69**	.48**	**.92**						
Factor 3	2.38	0.98	.30**	-.07	.02	**.86**					
Factor 4	2.73	0.97	.58**	.25**	.33**	.04	**.79**				
LMX	3.63	0.84	.47**	.30**	.30**	.43**	.20**	**.91**			
Trust	5.04	1.28	.33**	.16*	.14	.43**	.19**	.68**	**.87**		
TAI	2.06	0.80	-.14	.07	-.25**	-.18*	-.21**	-.03	-.12	**.91**	
ECQ	2.47	1.30	.05	.28**	.06	-.44**	-.02	-.19*	-.42**	.34**	**.92**

Bolded numbers in the diagonal are reliabilities of the individual scales. Factor 1 is the Physical Intimacy and Social Network familiarity factor, Factor 2 is the Duration factor, Factor 3 is the Self-Disclosure factor, and Factor 4 is the Frequency of Interaction factor.

** $p < 0.001$ there is a significant difference between groups

* $p < 0.05$ there is a significant difference between groups