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CoachMotivation: Developing Transformational Leadership by Increasing Effective Communication Skills in the Workplace

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CoachMotivation: Developing Transformational Leadership by Increasing Effective
Communication Skills in the Workplace

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A dissertation submitted in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

In

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Dedication

I dedicate this dissertation to my family:

To my mom, Lisa, who feels my emotions as her own, celebrating my every win and working with me through every struggle, always with enviable optimism.

To my dad, Ed, who never fails to help me find logic and reason when I'm struggling to see clearly.

To my sister Lauren, who forever provides love and laughter.

My family instilled in me the belief that I could accomplish whatever I set my mind to and provided unwavering support as I followed my dreams. I would not be where I am today if not for their love and support.

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Abstract

Communication is an intrinsic part of the human experience and has been widely studied empirically and practically within organizations. It is the bedrock for many workplace behaviors and outcomes such as employee trust, engagement, job satisfaction, and transformational leadership. Nonetheless, effective communication continues to be a challenge for organizations across a variety of sectors. The current study examined whether a communications training, CoachMotivation (CM), increased perceived effective communication. CM is derived from clinical psychology skills for behavior change, namely, the Motivational Interviewing concepts of open-ended questions, affirmations, reflections, and summary statements. This study also considered the Big Five personality traits (extraversion, agreeableness, openness, conscientiousness, and neuroticism) as predictors of baseline perceived effective communication and whether personality predicted residual change in perceived effective communication after participating in CM training. Findings include: (a) CM training increased self-perceptions of effective communication on the total communication scale ($N = 153$; $t [152] = -8.19, p < .001, d = .66$) as well as subscales of *clarity* ($t [152] = -6.83, p < .001, d = .55$), *responsiveness* ($t [152] = -6.56, p < .001, d = .53$), and *comfort* ($t [152] = -7.13, p < .001, d = .58$); (b) Extraversion predicted perceived effective communication at baseline for the total communication scale and *comfort* scale ($B = .19; SE = .06; p < .001$ and $B = .14; SE = .03; p < .001$, respectively); (c) Openness predicted residual change in perceived effective communication on the total communication scale and *comfort* scale ($B = .09; SE = .04; p = .043$ and $B = .06; SE = .03; p = .034$, respectively). This research provides practical implications for using CM to enhance communication and lays the groundwork for further study of CM's effects on more distal outcomes of communication as they relate to transformational leadership.

Keywords: communication, motivational interviewing, transformational leadership

CHAPTER I

Introduction

Communication is an intrinsic part of the human experience. From a baby's first cry for attention, humans communicate with one another from the moment we are born. While the child learning to speak is encouraged, and toddlers asked to "use their words" to express their feelings, the emphasis on learning to communicate appears to wane as individuals progress through their schooling and professional careers, despite the continued importance of communication (Shonkoff & Phillips, 2000). For instance, take the typical educational trajectory of an American student: preschool and kindergarten emphasize word acquisition, with spelling and grammar tests continuing through elementary school. Middle school and high school provide English classes focused on literature and composition, honing the craft of reading and writing essays. Verbal skills may also be a focus, with assignments consisting of Socratic seminar activities and formal presentations. College and graduate degrees enhance reading and comprehension skills and the synthesis of information in written and oral summaries. Then, just as the student graduates from the academic environment, so too, they finish their formal learning of communication. People move onto whatever professional career awaits them, often without additional communication training on what would help them most in the workplace.

While this educational trajectory may create a strong essayist or researcher, most professions outside the realm of academia and the hard sciences are not founded on this form of communication. Instead, individuals find themselves in the workplace communicating at the boardroom table, participating in conference calls, giving presentations on current, but incomplete, bodies of work, writing white papers, or sending emails. Though some of these communication forms mimic those learned in school, communication in the workplace is often

more fluid and complex, not focused on a singular topic as is generally the case in the academic setting. Nonetheless, the clarity and brevity of a school essay may be just as imperative in workplace communication. When presenting information, coworkers prefer clear and concise language over circuitous or verbose speech. In our world's current climate, where the virtual workplace has quickly overtaken the traditional work environment, the necessity for clarity and brevity is more important than ever. "This meeting could have been an email" is a recurring theme, highlighting the desire for people to be quick and to the point. At the same time, there has been a call for increased communication (Mendy et al., 2020). In the current environment of change and uncertainty, people are striving for increased relationship and communication to ensure all understand what actions are needed.

Effective communication is a bedrock of leadership, enabling leaders to communicate their vision to followers and motivate others to join their endeavors (Bass, 1985; Drucker, 1999; Gilley, 2005; Howkins, 2001). When unable to communicate clearly, it is challenging for leaders to articulate their vision and mission, and they struggle to inspire, motivate, or bring others alongside them in their journey.

Additionally, as individuals move upwards in an organization from entry-level positions to more senior roles, communication becomes more complex. Strong communication skills are increasingly more important as conversations turn towards more strategic (e.g., big picture thinking) versus tactical (task or execution-focused) organizational functions (Huegli & Tschirgi, 1974). A leader's ability to speak clearly and align their workforce around action-steps is critical (Judge & Piccolo, 2004).

Prior research provides evidence supporting that communication impacts leadership outcomes. For instance, communication links to organizational performance and effectiveness,

employee engagement, trust in leadership, and leaders' credibility (Grossman, 2011; Karanges et al., 2015; Rawlins, 2009; Wayne et al., 2007). However, further research is needed on what comprises "effective communication" and leads explicitly to these outcomes. Likewise, research is needed on additional predictors of leadership that may influence communication, such as personality (Judge et al., 2002).

The current study seeks to address this need. This study aims to understand how training on specific communication skills impacts individuals' perceptions of their communication ability and whether their personality predicts their perceived communication effectiveness. It draws on Motivational Interviewing (MI; Miller & Rollnick, 1991), an established behavior change method, to develop communications training. Specifically, it focuses on the impact of open-ended questions, affirmations, reflections, and summary statements (OARS) on perceived communication effectiveness. The current intervention is based on this subset of MI skills (e.g., OARS) and is referred to throughout the study as CoachMotivation (CM).

In the following literature review, I will first discuss the definition of "effective communication" and its importance in the workplace as it relates to leadership. Next, I will review communication outcomes: trust, organizational commitment, employee engagement, and job satisfaction. I will outline ways to improve communication in the workplace, including research on Motivational Interviewing and how it was used in the current study to develop the CM training. Then, I will review the predictive nature of personality on communication effectiveness. Finally, I will present my hypotheses of the current study.

Literature Review

Defining Effective Communication

Nilsen (1957) wrote, “The meaning of the word ‘communication’ is at once both clear and obscure” (p. 10). More than six decades later, this sentiment still rings true. The meaning is clear when we use it to reference speech or writing – it is easy for people to agree that both speech and writing are a form of communication, the transmission of a message. The meaning of communication is obscure when we try to define its limits – if a misunderstanding occurs, was it due to poor communication or a lack of communication? Shepherd (1992) explains that the main barrier in defining communication stems from its inherent relation to personhood – by defining communication, one is affirming, or disaffirming, a set of experiences to be “uniquely human” (p. 203). By this, he means that by defining communication, we are placing restrictions on human behavior that may fall into this category (e.g., one individual’s use of hand gestures could be considered as transmitting a message, whereas another person is claimed just to be waving their arms). Shepherd suggests that simple definitions inevitably include biases, which is why it is unsurprising that across hundreds of studies, definitions of communication vary (see Dance & Larson, 1976).

Communication can be defined explicitly, such as “a verbal action that elicits a verbal response.” It can also be defined more broadly, such as “all of the procedures by which one mind can affect another” (Weaver, 1949). Recent research fails to define *communication* at all; rather, it operationalizes the term to the extent it meets certain criteria (e.g., specific dimensions of communication or a particular score on a communication scale; O’Reilly & Roberts, 1977; Pettit et al., 1997). Rosengren (2000) gives a broad definition, suggesting that communication is the process of creating meaning. However, meaning is subjective, and therefore this definition

implies the same communication can mean something different to different individuals. Hallahan et al. (2007) define *strategic communication* as the “purposeful use of communication by an organization to fulfill its mission” (p. 3). Likewise, Holtzhausen and Zerfass (2013) define *strategic communication* as “the practice of deliberate and purposive communication that a communication agent enacts in the public sphere on behalf of a communicative entity to set goals” (p. 284). Both definitions fail to explain what behaviors comprise communication and instead describe its intent. Alternatively, Losee (1999) defines *communication* as “what is transmitted from the beginning of one process to the output of a process with the inverse functionality of the first process” (p. 18). While this definition gets at the concept of communication, it, too, fails to describe the necessary behaviors to make such a transmission occur.

Definitions of communication vary, but the main underpinning in all is the transmission of information from one party to another. Communication may be *effective* to the extent that the speaker is *clear*, *comfortable* in delivering the message, and *responsive* (Liu et al., 2010). Identifying these three factors of effective communication is necessary, as each facet represents a separate component of the communication construct, incorporating cognitive, behavioral, and affective elements. Furthermore, communication is considered episodic; while individuals have a baseline level of communication skills, they may exhibit varying degrees of *effective* communication for each communication facet (cognitive, behavioral, and affective) across different conversations (Van Quaquebeke & Felps, 2018). Therefore, in determining how to define communication for the current study, it was essential to use a definition that: (a) represents the construct intended for measurement (e.g., perceived effective communication), (b) is operational (e.g., indicators could be defined and captured by a measurement scale), and (c)

that people can contextualize to a given scenario (e.g., a workplace conversation). **Therefore, for purposes of this study, effective communication was defined as the ability of one party to articulate a message in clear, understandable language.**” Specifically, *effective communication* is measured in the study by three facets: *clarity* of the message, the *responsiveness* of participants, and the *comfort* experienced during the communication.

- **Clarity** – A cognitive facet of communication, clarity involves meaning transmission through words or symbols from a sender to a receiver (transmission model of communication; Ellis & McClinktock, 1990). It is the ability to formulate thoughts into words or symbols that others can interpret (Barnlund, 1970).
- **Responsiveness** – Being responsive represents the speaker’s willingness to speak and provide space for the other person to respond (Griffin, 1994). Responsiveness is a behavioral component of effective communication, reflecting norms of reciprocity (Brett et al., 1998). It requires the speaker to relay information and subsequently listen attentively, signaling the degree to which one invites the conversation to continue (Van Quaquebeke & Felps, 2018). It also indicates the social norms of coordination (Barry & Crant, 2000). For instance, in conversation, there is an expectation by both individuals to be given a chance to speak. When an individual does not allow for open dialogue (e.g., delivering a directive), the other party may feel slighted and consequently respond negatively or defensively to the speaker.
- **Comfort** – Having confidence in one’s ability to communicate with others and promote an environment of trust. Comfort is an affective (emotional) facet of communication. For example, high levels of anxiety (apprehension of what may happen) and uncertainty (inability to predict others’ feelings, attitudes, and behaviors) may result in decreased

comfort as the situation feels ambiguous (Berger & Calabrese, 1975). Gudykunst's (1995) anxiety/uncertainty management (AUM) theory suggests that high anxiety and uncertainty levels result in misunderstandings. Comfort is a lack of anxiety and uncertainty. It mitigates chances of misunderstanding and is, therefore, a necessary component of effective communication.

In the current study, the three facets of *clarity*, *responsiveness*, and *comfort* were explicitly chosen as a multi-faceted approach to measuring communication. The multi-faceted measurement enables the detection of changes in overall communication and changes to specific sub-factor scales of communication, providing a deeper understanding of the intervention's effects (or lack thereof). Additionally, individuals in the present study were asked to recall the same episode (e.g., the same workplace conversation) during both pre-and post-test to contextualize the results of the training to a specific event. This helps address the episodic nature of communication.

The Importance of Communication

Across time, contexts, and individuals, developing better employees has been, and continues to be, a key focus of organizations (Bell et al., 2017; Highhouse & Schmitt, 2012). One researched process of employee development is coaching. Coaching in organizational settings has been associated with positive outcomes for personnel, such as increased job performance, skills, and personal development (Bozer & Jones, 2018; Jones et al., 2016). Other forms of employee development include programs for purchase through consulting companies – the multitude of assessments used in employee development training highlight the need for communication training. Wiley's DiSC training, Gallup's Strengthsfinder, and the Enneagram are three such trainings, all boasting the outcome of increased team communication through

developing participants' understanding of teammates' communication styles, work strengths, and personality types. These outcomes are also promoted through coaching companies' "canned" trainings based on the writings of Dale Carnegie, Steven Covey, and other inspirational authors.

Communication in the form of clear speech appears as the main component of employee development across many programs. However, as described below, research shows there is still room for improvement in developing effective communication, or one party's ability to articulate a message in clear, understandable language, and for the other party to easily understand the articulated message. Additional research is needed on best practices for developing effective communication, which incorporates *clarity*, *responsiveness*, and *comfort*.

Communication and Leadership

The necessity of clarity, responsiveness, and comfort in communication at the leadership level is seen in the definition of transformational leadership (Bass, 1985). Four main components comprise transformational leadership—inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration. These four components create the necessary environment to move followers to transcend their self-interests for the organization's greater good (Judge & Piccolo, 2004). The extent to which a leader demonstrates each component connects to communication:

- **Inspirational Motivation (IM)** – IM is the extent to which leaders can motivate their followers to commit to the shared vision or goal, strengthening efficacy beliefs, and enhancing team morale. Without the ability to clearly communicate the vision, leaders would likely be unable to inspire their followers to take action towards their goals.

- Idealized Influence (II) – II is visible in leaders' commitment to the mission and the actions they take in attempts to follow their core values, maintain ethical principles, and take risks when necessary. Through these actions, leaders serve as role models for followers. Imagine if the leader were unable to clearly articulate the reasoning behind his or her decisions – This inability to communicate the basis for decision making could hamper the followers' confidence in their leader and mitigate the effects of II.
- Intellectual Stimulation (IS) – IS refers to leaders' support and acceptance of follower ideas and involves including followers in decision-making processes. Consider the outcomes if the leaders' and followers' communication skills lacked clarity; decisions may be made without all the information, and the mission could suffer.
- Individualized Consideration (IC) – IC is the concept of the leader giving each individual follower the attention they need and meeting specific needs and desires necessary to maintain follower motivation. With poor communication, these needs and desires may go unknown, and a leader could lose followers, consequently impacting the fulfillment of their mission.

These examples show that without the ability to communicate clearly, leaders may struggle to establish the four components of transformational leadership behavior and may fail to bring followers alongside them in their journey. Alternatively, when there is effective communication, defined by *clarity*, *responsiveness*, and *comfort*, there may be more meaningful transactions between leader and follower, increasing trust and integrity. Communication, therefore, serves as a necessary skill to becoming a transformational leader. Effective communication is also needed to ensure effective workplace functioning of both the leader and their followers.

Communication Outcomes in the Workplace

A 2011 study conducted by the Holmes report estimated that unclear communication (e.g., confusing company policies, misunderstood emails, incorrect interpretation or misunderstanding of tasks or responsibilities, failure of a message to reach the intended audience, etc.) costs American businesses roughly \$400 billion every year (Grossman, 2011). While the Holmes report surveyed 400 companies with 100,000 employees, the cost of poor communication does not discriminate based on company size. Hamilton (2010) reported that for smaller companies of around 100 employees, the average cost of miscommunication (described as “email blunders, inefficiencies, and misunderstandings,” specifically, relating to inaccurate or incomplete information, inappropriate tone, and excessive volume) is a stifling \$450,000 per year. Beyond monetary implications, poor communication can also risk the life of a project, a business, and even the lives of humans. A 2013 study by the Project Management Institute (PMI) suggests that 56% of every billion spent on a new project and research (approximately \$75 million) is put at risk by ineffective communications in the form of challenges around understanding what language (e.g., technical jargon) is necessary to clearly articulate project-related information, in addition to a gap in understanding of the business benefits between the executives who make the strategy and the employees who execute on it. The study also indicates that ineffective communication is the main contributor to project failure in 33% of cases and negatively impacts 50% of all cases. According to the research firm CRICO Strategies’ 2016 report, roughly 30% of malpractice claims filed between 2009 and 2013 listed communication problems as contributing factors. These communication breakdowns were associated with 1,744 deaths and more than 1.7 billion dollars in hospital costs.

The data show the necessity of clear communication for both organizational performance and effectiveness. Researchers have noted that without effective communication with employees, inter-organizational partners, and customers alike, relationship development can be hampered and may result in diminished value (Harvey & Griffith, 2002). Communication generates trust and credibility (Rawlins, 2009) and influences employee engagement (Wayne et al., 2007), and a lack of communication reduces these outcomes. For example, in their study of internal communication (defined as communications provided within an organization by organizational leaders) and employee engagement (defined as “a positive, fulfilling, work-related state of mind” p.129), Karanges et al. (2015) report that roughly 23% of the variance in employee engagement was explained by internal communication, as measured on a multiple-choice survey in two factors: providing information and creating a sense of community. In a second analysis, internal supervisor communication accounted for roughly 32% of the variance in employee engagement. This data suggests that when organizations provide adequate communication, employees feel their needs are met and hold the relationship in positive regard, consequently reciprocating positive behaviors to the organization, namely, engagement (Cropanzano & Mitchell, 2005). Therefore, improving communication is important to enhance communication in and of itself and to provide additional organizational outcomes, such as engagement.

In addition to engagement, positive outcomes of effective communication include trust and credibility, as discussed in Mayfield and Mayfield's (2017) overview of leadership communication. Mayfield and Mayfield (2017) report that at the leadership level, communication serves as an interpretation of the organization's reality and often functions to form a shared perception. Whether a leader or follower, this shared perception may be essential to adhering to an organization's mission and moving the company towards achieving its vision.

The research indicates a growing body of evidence suggesting that effective communication is fundamental for creating trust, organizational commitment, employee engagement, and job satisfaction (Men & Stacks, 2014; Robinson et al., 2014). These outcomes are of specific interest, for as previously discussed, they are related to transformational leadership behaviors. Without effective communication, transformational leaders may fail to bring followers alongside them in their journey. Thus, without effective communication, trust, organizational commitment, employee engagement, and job satisfaction may not be obtained, and one may fail to become a transformational leader.

Trust. The relationship between communication and trust can be looked at through several lenses. For instance, Anderson and Narus (1990) suggest the trust-communication relationship is multi-directional, where effective communication is both an antecedent to trust while trust is also a positive reinforcer of communication. Alternative views include communication preceding trust formation (e.g., Webster & Wong, 2008) and trust preceding effective communication (Chory & Hubbell, 2008). Communication may also facilitate trusting relationships between leaders and employees (Allert & Chatterjee, 1997).

Furthermore, in their study on manager-employee relationships, Willemyns et al. (2003) drew upon communication accommodation theory (a framework for understanding communication in which individuals are likely to mimic the verbal and nonverbal behaviors of those they communicate with; Giles et al., 1973). They found that managers' communication themes in terms of dominance, power, and (lack of) support linked to erosion of trust within the group. Lastly, Kottila & Ronni (2008) found it was not the frequency of communication, but rather the quality of communication, that correlated with trust in receivers. Regardless of the direction of the relationship, it is clear communication and trust go hand-in-hand.

Organizational Commitment. Research has repetitively linked leader communication and employee commitment (e.g., Goleman, 2000; Reina & Reina, 1999). When a leader can clearly communicate the organization's vision, employees are more likely to understand the vision and commit to the organization's goals and strategies (Goleman, 2000). Mayfield (2000) suggests that employee commitment is one of the most critical success metrics, purporting that high levels of employee loyalty link to an estimated 11% gain in productivity. In Cascio's (1998) study, commitment also explained roughly 34% of employee turnover, saving the organization hundreds of thousands of dollars. Mayfield and Mayfield (2002) suggest that employee commitment can only be established through effective communication, as supervisor communication links to employee satisfaction, performance, and retention (Goman 1991; Robins, 2001).

Organizational commitment as an output of effective communication is also linked to the communication-trust relationship. In the communication trust model (Reina & Reina, 1999), feedback is posited as an essential component in building trust, loyalty, and commitment. Communication strategies of guidance and listening are also related to trust and commitment (Mayfield & Mayfield, 2002). Lastly, the leader's ability to be flexible in their communication strategy in a given situation (e.g., choosing to be directive, questioning, empathetic, etc.) is also vital in creating employee commitment (Goleman, 2000).

Employee Engagement. Employee engagement refers to the positive attitudes with which one views their work and work tasks (Karanges et al., 2015). Having high employee engagement levels is considered a competitive edge and a contributing factor for acquiring talent (Anita, 2014). The Gallup Management study found employee engagement relates to improved business outcomes and decreased absenteeism and turnover (Mann & Harter, 2016).

Additionally, research has indicated a relationship between employee engagement and leadership effectiveness, cooperation, and employee wellbeing (Robinson et al., 2004). Suffice to say, employee engagement appears to be an essential and beneficial workplace characteristic. At the foundation of employee engagement lies employee communication.

According to Saks (2006), internal communication promotes the extent to which one is engaged. Choong (2007), Gill (2011), and Welch and Jackson (2007), amongst others, have all agreed that communication has a positive influence on employee engagement. Pounsford (2007) suggests that communication strategies, such as informal communication and coaching, lead to greater employee engagement. Furthermore, Thomas et al. (2009) indicate that when employees feel they are receiving work-related information that is timely, accurate, and relevant, they feel less vulnerable. These arguments lend support to the idea that focusing on increasing effective communication could improve employee engagement. Therefore, if one desires employee engagement, there is warranted support for the research of effective communication.

Job Satisfaction. Various aspects of effective communication such as factuality, frequency, and feedback are positively related to employees' satisfaction levels and job performance (Kacmar et al., 2003; Neves & Eisenberger, 2012; O'Reilly & Roberts, 1977; Snyder & Morris, 1984). Specifically, open two-way communication correlates with increased employee satisfaction and happiness, and happy employees are generally more successful (Anchor, 2010; Eisenberger & Stinglhamber, 2011; Rhoades & Eisenberger, 2002; Shore & Shore, 1995). Much of the connection between effective communication and job satisfaction may be explained by Herzberg's motivator-hygiene theory: communication acts as a hygiene factor where effective communication may not in and of itself increase job satisfaction, but poor communication will have a negative impact on job satisfaction (Herzberg, 2003). Thus,

communication is a bedrock on which job satisfaction can grow. Furthermore, research on *effective communication* posits that it can satisfy employees; for example, job satisfaction was positively impacted by effective communication from supervisors regarding expectations and feedback on job performance (Tsai et al., 2009).

Improving Workplace Communication

The necessity for effective communication is apparent and provides an opportunity for organizations to take targeted and measurable action towards improving performance and effectiveness. One central question lies at hand: what can we do to increase workplace communication, consequently increasing associated workplace behaviors and outcomes (e.g., trust, organizational commitment, and job satisfaction; Men & Stacks, 2014; Robinson et al., 2014)?

Coaching Communication

Professional coaching has become widely adopted as a development tool to increase communication and thus enhance workplace relationships due to its ability to help modify behavior without negatively impacting an individual's sense of competence and self-esteem (Strickland, 1997). Studying 114 executives and 42 coaches, Kombarakaran et al. (2008) found executive coaching significantly increased dialogue and communication. They also report that coaching improved other critical workplace skills such as people management, relationships with managers, goal setting and prioritization, engagement, and productivity, as measured by coach and coachee surveys consisting of quantitative and qualitative measures. Pilette and Wingard (1997) report that positive outcomes of coaching are achieved via dialogue that identifies patterns of behavior related to goal achievement, highlights new perspectives by reframing past patterns, and allows for the practice of new behaviors. These attributes are highlighted in specific

forms of coaching, such as Motivational Interviewing, a clinical technique of coaching used to help elicit behavior change (Miller & Rollnick, 1991).

Nevertheless, even with the knowledge that coaching practices may enhance workplace dialogue, businesses continue to lose money, projects, and lives due to ineffective communication. While additional factors contribute to why a company faces financial loss, coaching communication may be one way to reduce some of these losses. The communication skills incorporated in Motivational Interviewing could be included in coaching to help enhance communication.

Motivational Interviewing

In the realm of clinical psychology, Motivational Interviewing (MI) has been established as a documented means of behavior change. It is a “collaborative conversation style for strengthening a person’s own motivation and commitment to change” (Miller & Rollnick, 2013, p. 12). Following Rogers’ (1959) client-centered therapy approach, MI fosters readiness for change through supportive and empathetic dyadic relationships. MI can be both a set of tools for change and a counseling style (Miller & Rollnick, 1991). Drawing from Self-Perception Theory (Bem, 1972), the crux of MI lies in the understanding that commitment to change is strengthened when it comes internally from the client, as opposed to external forces. MI lies on three foundational tenets:

- Consideration – Giving priority to the individual’s needs and providing genuine support through conversation.
- Evocation – Drawing motivation and reasons for change from the individual’s own experience instead of telling them what they should be doing.

- Autonomy - Acknowledging that the impetus to change does not come from authority but solely from the individual.

In addition to the three tenets, MI uses four building blocks – open-ended questions, affirmations, reflections, and summary statements – to help the client find the reasons for change within themselves and commit to change.

Rogerian Basis. MI is based on the client-centered therapy approach, in which Roger (1957) outlined six critical conditions to enable personality change:

1. A dyadic relationship exists between a client and therapist.
2. The client exhibits incongruent behavior between one's actual and desired self (e.g., vulnerability or anxiousness).
3. The therapist is congruent (e.g., in a balanced state of self-experience and self-perception; able to be genuine during therapy).
4. The therapist provides unconditional positive regard to the client (e.g., caring and warmth; validation of the client's emotions).
5. The therapist exhibits empathy for the client.
6. The client believes the therapist is exhibiting unconditional positive regard and empathy.

Roger drew these critical conditions from his belief that all humans strive to fulfill their greatest potential. With these necessary conditions, the dyadic relationship between therapist and client can help the client become self-actualized. He emphasizes the power of being listened to; the client may discuss anything during the session, and the therapist can actively listen, show empathy, and affirm the client to help them move towards self-actualization.

At first blush, MI may seem like a simple repackaging of the Rogerian approach, yet such a viewpoint is not wholly correct. MI is not merely a revision of Rogerian theory; though

founded in similar beliefs, MI departs from Rogerian client-centered therapy due to its conscious, goal-oriented function (Miller & Rollnick, 2009). The Rogerian approach may appear non-directive, whereas MI has an underlying, direct approach towards a specific goal. Furthermore, while Roger focused on helping a client achieve self-actualization, MI focuses on the client's chosen goal and works to help them achieve their goal through intentional discussion, evocation of motivation, and elicitation of change behavior. The power of listening is essential in both methods, yet the focal outcomes differ. A client-centered therapy session may include discussion of a wide array of topics; the power of MI lies in its target discussion of one behavior the client is hoping to change.

MI Strategies and Outcomes. At its core, MI is more persuasive than coercive, nudging clients along the pathway to change rather than pushing them straight into change behaviors. Using MI, intent should focus on increasing the subject's intrinsic motivation (Miller & Rollnick, 2002). Magill et al. (2014) reviewed 12 studies examining outcomes related to MI skills, defined as conversational tools specific to the MI approach. These include the four building blocks previously mentioned – open questions, affirmations, reflections, and summaries, abbreviated in the literature as OARS (Miller & Rollnick, 1991).

- Open-ended questions – In an attempt to evoke from the subject, open-ended questions are used to draw information from the subject. Unlike closed questions, open-ended questions hold no judgment and elicit an air of curiosity.
- Affirmations – Affirmations consist of validating thoughts and feelings to encourage a positive outlook and the subject's sense of support. Affirmations help decrease defensiveness and increase openness to change.

- Reflections – Restatements of the subject’s comments can help clarify content and context, demonstrate one’s recognition of the subject’s point of view, and support autonomy in more in-depth exploration.
- Summary statements – Summaries offer a new perspective by bringing together all of the information one has gathered from discussion with a person and help move the conversation forward.

Consistent use of MI skills has correlated with more client-generated change talk, defined as language that indicates positive behavior change (Magill et al., 2014). This change is directly impacted by self-efficacy.

Self-Efficacy. Self-efficacy, or the belief that an individual can achieve their goal (Bandura, 1997), is a building block of change; if someone believes they cannot change, they will be less likely to try. Thus, a central component of MI is increasing individuals’ self-efficacy to promote behavior change. Sayegh et al. (2017) conducted a meta-analysis of 84 studies, concluding that MI has significant effects across behavior change populations at three-month and six-month follow-ups. This finding suggests that individuals develop heightened intrinsic motivation when engaging in the MI process, leading to durable change over time. Furthermore, when *implementation intentions*, or the where, when, and how of goals attainment (Gollwitzer, 1999) are used in conjunction with MI, self-efficacy, and goal attainment are strengthened even more.

Clinical Use. MI has been widely studied in clinical psychology, consistently showing success in achieving behavior change. A meta-analysis of 30 controlled clinical trials comparing MI adaptations to no treatment or placebo groups indicates moderate effects for MI efficacy for several populations addressing behavior change, such as alcohol, drugs, diet, and exercise (Burke

et al., 2003). In a review of four meta-analyses, Lundahl and Burke (2009) found that MI is 10-20% more effective than doing nothing when considering methods to address behavior change. A meta-analysis examining 119 MI studies indicates that the format or role of MI does not significantly influence outcomes (e.g., number of individuals in a session, timeframe, etc. do not influence outcomes; Lundahl et al., 2010).

Moreover, a meta-analysis conducted by Hettema et al. (2005) found that studies using no manual to guide the MI practice had twice the effect size observed as studies using an MI therapist manual. By not having a manual, people were less likely to go prematurely into planning and focus more on the client's needs at the moment and their readiness for change. Based on this research and that of Lundahl et al. (2010), MI is arguably adaptable, as seen in its use as both an addition and stand-alone method for addressing behavior change. This flexibility in format and role may suggest that MI can be adapted for use outside of the clinical setting.

MI in the Workplace. Though MI has historically been used for substance abuse and addiction (Miller & Rollnick, 1991), it has been used more recently in the business setting for reasons such as appraisal interviews (Campbell, 2005), team meeting facilitation (Klonek et al., 2015) and career coaching (Passmore, 2007; Stoltz & Young, 2013). As MI has grown in the workplace, its potential for improving communication has begun to surface. When employees are told they need to do something better or differently, it is common for individuals to respond defensively; when behavior change feedback or suggestions are viewed as a criticism or a threat, people respond reactively and protectively in attempts to shield oneself from threat and maintain the status quo (Ashforth & Lee, 1990). One could surmise that if employees were told they need to improve their communication or take communication training, they might have such a defensive response. Alternatively, the process of MI does not tell an individual what they need to

change; instead, MI elicits behavior change by helping clients identify their own goals, highlighting discrepancies between those goals and current behavior, and discussing the benefits of change (and risks of not changing). Through these conversations, clients talk themselves into taking steps towards change (Miller & Rollnick, 1991). In the workplace, utilizing MI skills could help individuals gain improve their communication skills as they learn to engage in conversations that curtail defensive reactions and enable more open discussions.

Klonek and Kauffeld (2015) engaged 25 engineers in an MI study, measuring the training's outcomes on verbal communication. Results indicate that MI training increased participants' oral communication skills. Specifically, participants used significantly more open-ended questions, considerably less confrontational and argumentative language, and showed increased reflective listening post-training. While the study has several limitations, such as its small sample size and study of one professional field, when viewed in conjunction with the rest of the MI research, it may support the idea of using MI in the business place to increase effective communication. However, Klonek and Kauffeld's (2015) work aside, little research has been done connecting MI and communication skills, providing an opportunity to investigate further how MI could improve workplace communication.

MI and Communication Effectiveness. Using MI in the workplace for communication improvement is still a new concept, but research has shown positive outcomes. The purpose of this pilot study is to extend the current research on MI in the workplace. The aim is to understand how online training on OARS could provide people with a new skill set that could increase perceived communication effectiveness in the workplace. The hope in bringing MI tools to the workplace via CoachMotivation (CM) training, an intervention based on OARS, is to give employees a skillset and structure to use in their conversations, enabling them to foster more

effective communication. When considering how to use CM in the workplace to promote effective communication, it is also necessary to consider other variables that may influence communication styles and skills. One such variable is personality.

Predictors of Communication

For many years, the leading framework for personality has been the Five-Factor Model (FFM; Costa & McCrae, 1985). In this model, personality traits are grouped into five higher-order dimensions, often referred to as “the Big 5”:

1. Extraversion - the extent to which a person is sociable, talkative, and active.
2. Agreeableness – the tendency of a person to agree with and to go along with others.
3. Conscientiousness – the tendency to be careful, follow the rules, be organized, and be hardworking.
4. Neuroticism – the extent to which one experiences negative emotions and is interpersonally sensitive.
5. Openness to Experience – the extent to which one shows a preference for variety and is intellectually curious.

Years of research have provided strong support for the FFM’s five personality traits existing as basic human personality dimensions across people, languages, and culture (McCrae, 2002; Schmitt et al., 2007). While the environment, cultural norms, and education may influence one’s communication style, Waldherr and Muck (2011) propose that communication styles can also be considered characteristic of one’s personality. Specifically, Waldherr and Muck (2011) suggest that individuals’ communication styles are relatively stable behavioral patterns consistent with one’s personality. For example, an agreeable person’s communication may be more welcoming and friendly, while someone low on the Openness to Experience scale may appear

rigid or withdrawn in their communications. Various fields of research demonstrate biological support for personality traits and communication, including neuropsychology (DeYoung et al., 2010), developmental psychology (McCrae et al., 2000), behavior genetics (Hershberger et al., 1995), and others. Furthermore, some research regards personality as integral to interpersonal communication, suggesting that personality influences how individuals interact with their environment and relate to others (Dunning, 2003; Hargie & Dickson, 2004; Heathcote, 2010; Waldherr & Muck, 2011; Zeisset, 2006). Personality has played and continues to play a clear role in communication research (Cole & McCroskey, 2000).

Trait-based research is the fundamental underpinning of the early research in communication apprehension, or “an individual’s level of fear or anxiety associated with either real or anticipated communication with another person” (McCroskey, 1977, p.269). Willingness to communicate, defined as one’s predisposition to initiate a conversation with others, was also grounded in trait-based research (McCroskey & Richmond, 1996). Furthermore, there is evidence to suggest that the FFM dimensions correlate with specific communication components such as assertiveness and responsiveness, as well as anxiety and apprehension (Cole & McCroskey, 2000). The FFM dimensions also correlate with communication preferences such as speaking face-to-face or via a virtual platform (Harrington & Loffredo, 2010). The current study seeks to understand if the CM training can positively influence perceived effective communication, regardless of one’s personality. Therefore, it is important to understand personality’s predictive nature of communication. The following information is far from exhaustive but provided as a high-level overview of each personality trait and its relation to communication.

Extraversion

Extraversion is highlighted in much of the personality and communication research due to its predictive nature of one's sociability. Conceptually, it would make sense that extraverted individuals would have different preferences than introverted individuals based on their sociability levels and that one's level of Extraversion would predict communication style preferences.

Harrington and Loffredo (2010) found that extraverts preferred face-to-face conversation over virtual interaction. In their study, extraverts reported that being face-to-face helped them better understand the reactions and emotions of others. This may relate to the *responsiveness* facet of effective communication; the extravert is more responsive when face-to-face and less responsive in virtual settings where they find it more challenging to understand others' reactions.

Additional research suggests that one's level of Extraversion predicts communication preference and impacts communication style. Beukboom et al.'s (2013) research indicates that introverts are more likely to explain scenarios in concrete language, describing visible behaviors and details, while extraverted individuals are more likely to use abstract language when describing a scenario. Abstract language involves incorporating feelings and other aspects of interpretation not from the situation itself but from the individual's past experiences. For example, when given the image of a cashier, introverts were more prone to describing the image's visible aspects (e.g., explaining that the shopper hands money to the cashier). Alternatively, extraverts included tangential and experience-related information (e.g., the cashier is friendly). Prior research indicates that the concrete depiction gives a realistic account of the scenario, while an abstract description is more telling of the respondent's personality than it is of the scenario (Semin, 2011). These linguistic style differences result from introverts' language

being more situationally specific with stronger viability (e.g., descriptive of reality) and trustworthiness than extraverts' descriptions (Beukeboom et al., 2013; Hansen & Wanke, 2010; Semin & Fiedler, 1988).

Regarding personal efficacy around communication skills, Molinuevo and Torrubia (2013) found that self-ratings of communication skills relate to Extraversion. Specifically, those who were higher on the Extraversion scale of the Eysenck Personality Questionnaire (EPQ) self-rated higher on communication skills. This supports McCroskey et al.'s (2001) finding that introverts display more apprehension around communication, while extraverts view themselves as more competent. Additionally, Major et al. (2006) replicated Crant and Bateman's (2000) finding that Extraversion, Openness, and Conscientiousness positively relate to proactive personality (e.g., the tendency of an individual to influence or change their environment). They extend this line of research to examine development activity, finding that proactive personality, Extraversion, Conscientiousness, and Openness significantly predict motivation to learn. Based on this finding, Major et al. (2006) discuss the implication of personality predicting motivation on training applications and how those who are more motivated are likely to have greater utility analysis of training programs and obtain greater acquisition of training. Therefore, despite research indicating that introverts provide more reliable accounts (Beukeboom et al., 2013; Hansen & Wanke, 2010; Semin & Fiedler, 1988), one's level of Extraversion may predict the ability to acquire communication skills through training.

Lastly, a study on couples' interactions reports that communication behaviors and personality are related to couple stability; specifically, Extraversion moderated the relationship between couple stability and a male's communication withdrawal (Lazaridès et al., 2010). Results of Lazaridès' et al. (2010) study indicate that couple stability is highest when there are

low levels of woman extraversion and low levels of male withdrawal, or high levels of male withdraw and high levels of women's extraversion. In other words, men's levels of withdrawal and women's extraversion are complementary and promote stability when they are either both high or both low on their respective scales.

While workplace relationships aren't synonymous with romantic engagements, it is feasible to believe that male and female coworker relationships may follow a similar pattern, where high or low levels of both Extraversion and communication withdrawal are supportive of relationship stability. Voss and Voss (1997) suggest that when considering the importance of workplace relationships for collaboration and teamwork, it is necessary to understand communication's role in making those relationships strong and dependable.

The various lines of research connecting Extraversion to communication preferences, perceived communication efficacy, and workplace interactions provide evidence for considering Extraversion as a predictor when studying effective communication.

Agreeableness

Individuals who score high on Agreeableness tend to prefer cooperation over discord. Individuals scoring high in Agreeableness appear modest, whereas those low in this trait tend to be highly competitive. In his quantitative analysis, Bell (2007) reports that Agreeableness has the most substantial effect on team performance of all personality traits. This finding was previously suggested by Mount et al. (1998), who found individual-level Agreeableness to be the number one predictor of performance when working in teams. Regarding communication, those who are more agreeable tend to encourage communicative participation from everyone involved, support others' perspectives, and promote feelings of safety and comfort in sharing opinions with the group (Graziano et al., 1996). This behavior may facilitate social sensitivity and conversational

“turn-taking,” both of which positively relate to group performance (Woolley et al., 2010).

Indeed, Bradley et al.’s (2013) study found support for the idea that a team’s level of Agreeableness impacts their communication and resulting performance - more agreeable teams communicated more, which resulted in increased performance.

Levels of Agreeableness and gender may also interact and influence communication. Research indicates that women have a greater tendency towards Agreeableness than men (Ahmed & Naqvi., 2015; McCrae & Costa, 2003). Considering theories that suggest personality is genetically driven, one reason women may be more agreeable stems from an evolutionary trend of women taking on nurturing and caregiving roles (Chapman et al., 2007). This predisposition to Agreeableness is observed in women’s communication styles, which are often seen as interpersonal and relationship building, as opposed to exerting dominance (Merchant, 2012). Based on this relationship and additional research supporting an association between personality and gender (e.g., Feingold, 1994; Kajonius & Johnson, 2018; Vecchione et al., 2012), gender is included in the current study as a covariate to help ascertain the predictive nature of personality on perceived effective communication.

Openness

Openness is the trait of curiosity, a determinant of how much an individual wants to explore and try new things. It is also related to originality and thought complexity (John & Srivastava, 1999) as well as verbal intelligence (DeYoung et al., 2005) and creativity (Carson et al., 2005). When individuals are open, they tend to be inquisitive and are more likely to exhibit a questioning communication style (de Vries et al., 2013). When individuals are less open, they prefer to stick to what they know, keeping routine and familiarity, which may impair their ability to see others' points of view when they venture away from traditional viewpoints.

Openness has been studied in terms of cognitive ability since the 1960s, and research suggests it derives from one's level of intellect or ability to learn (McCrae & Costa, 1997; Morris, 1976). Additional research defines Openness using trait adjectives such as "intelligent," "perceptive," "knowledgeable," and "analytical" (McCrae & Costa, 1997). McCrae and Costa (1997) suggest that the focus on Openness relating to knowledge stems from open individuals' inherent nature to seek a wide range of experiences. This connection between Openness and intelligence is also associated with communication.

Research refers to Openness as inquisitive intellect due to open individuals' characteristic of active curiosity (Fiske, 1949). Open individuals are motivated by intellectual challenges, such as philosophical arguments, because engaging in such discussions fulfills their desire to discuss and develop new ideas (McCrae & Costa, 1997). This motivation posits Openness as a precursor to discourse and engaging conversation. People higher on the Openness scale may engage in more communication than closed individuals.

In addition to increased communication, Frenkel-Brunswik suggests that more open individuals are more prone to intellect and consequently will think through their feelings logically and hold a discussion (Adorno et al., 1969). Alternatively, a closed individual is more likely to repress or project uncomfortable emotions (e.g., attribute to someone or something else). This predicts communication, with the more open individual embracing dialogue, while the closed individual may appear shut-down or defensive.

McCrae and Costa (1997) assert that Openness is the least researched and least understood of the five fundamental personality traits. It is the most controversial and the most difficult to understand (McCrae & John, 1992). There are many different definitions of Openness, conflicting research concerning what comprises the construct, and various ideas

concerning outcomes of having an open personality. Nonetheless, as mentioned above, some research indicates a predictive ability of Openness on communication, hence its inclusion in the current study.

Conscientiousness

Conscientious individuals are achievement-oriented, organized, and attentive, and these characteristics impact the positive relation of conscientiousness to job performance (Barrick & Mount, 1991). In attempts to succeed, conscientious individuals tend to be assertive in their language, clearly identifying their needs and desires for achievement (Bouchard et al., 1988; Kirst, 2011). Khuong et al. (2016) suggest that this attention to detail and desire to be thoughtful and precise in their actions results in better communication skills than less conscientious individuals. Furthermore, conscientious individuals may be more willing to communicate than less conscientious people, as their attentive nature helps them formulate what they want to discuss and the outcomes they are driving towards (Karadağ & Kaya, 2019). More conscientious individuals may also be more creative in their communication styles, finding new ways to present information that resonates with their audience (Ahmed & Naqvi, 2015).

In addition to being more willing to communicate, more conscientious individuals may be more persuasive in their communications across multiple communication modalities (e.g., text, audio, and video; Mohammadi et al., 2013). In leadership, persuasion is necessary to influence followers to work towards the vision (Grant & Hoffman, 2011). Conscientious leaders are also less prone to being verbally aggressive, which may help build a connection with their followers as they are willing to engage in more peaceful dialogue (Banerjee et al., 2016).

Lastly, the characteristic of accuracy influences the Conscientiousness-communication relationship – conscientious individuals are likely to engage in open communication, speaking up

and asking questions to promote and improve performance more so than less conscientious people (Nikolaou et al., 2008). Thus, Conscientiousness may be predictive of communication.

Neuroticism

Also referred to as (low) emotional stability, Neuroticism represents the extent to which one tends not to experience negative emotions. Those who score higher on neuroticism exhibit traits such as anxiety, fear, jealousy, and anger (Costa & McCrae, 1985). Effective communication requires focus to listen to another, decipher the meaning of their words, and formulate a response. High anxiety impairs this function; Khuong et al. (2016) suggest that more neurotic individuals feel unconfident in their ability to ask or answer questions and feel insecure communicating with others. LePine and Van Dyne (2001) demonstrated a negative relationship between Neuroticism and verbal communication, as well as cooperative behavior, suggesting that individuals higher on the Neuroticism scale are less likely to speak up, share their thoughts, or engage in the dialogue necessary for cooperative behavior. Higher levels of anxiety associated with Neuroticism may decrease motivation to communicate, such that individuals avoid interactions where communication is needed, such as social gatherings (Turner, 1988). Durlon et al.'s (2005) study supports this idea, implying that higher anxiety predicts higher communication avoidance and lack of assertion. Research identifies assertiveness as a sign of communicative competence (Singhal & Nagao, 1993). Considering that those who are more sensitive and approval-seeking are less likely to be assertive (Ramanaiah et al., 1985), Neuroticism serving as a negative predictor of one's willingness to communicate makes logical sense (McCroskey et al., 2004; Sims, 2017).

Hypotheses & Model

Three major hypotheses are presented in this study. First, the study tested whether participation in the CoachMotivation training increases individuals perceived effective communication from pre- to post-test scores. Effective communication was assessed using the total Quality of Communication Experience Scale and each subscale: *clarity*, *responsiveness*, and *comfort* (QCE; Liu et al., 2010). Second, it was hypothesized the Big Five personality traits would predict perceived effective communication scores at the pre-test (concurrently), prior to participating in the CoachMotivation training. Third, it was hypothesized that the Big Five would predict residual variance in post-test scores (i.e., degree of change associated with the training). The full proposed model is shown in [Figure 1](#).

- *Hypothesis 1*: There will be an increase in perceived effective communication after participating in CoachMotivation training.
 - *Hypothesis 1a*. There will be an increase in perceived total effective communication after participating in CoachMotivation training.
 - *Hypothesis 1b*. There will be an increase in perceived effective communication for the *clarity* subscale of communication after participating in CoachMotivation training.
 - *Hypothesis 1c*. There will be an increase in perceived effective communication for the *responsiveness* subscale of communication after participating in CoachMotivation training.
 - *Hypothesis 1d*. There will be an increase in perceived effective communication for the *comfort* subscale of communication after participating in CoachMotivation training.

- *Hypothesis 2*: Each Big Five personality trait will predict perceived effective communication scores on the pre-test, controlling for other personality traits, prior to participating in the CoachMotivation training. This prediction will be observed on the total communication score and each subscale of *clarity*, *responsiveness*, and *comfort*.
 - *Hypothesis 2a*: Extraversion will be a positive predictor of perceived effective communication on the total communication score and each subscale of *clarity*, *responsiveness*, and *comfort*.
 - *Hypothesis 2b*: Agreeableness will be a positive predictor of perceived effective communication on the total communication score and each subscale of *clarity*, *responsiveness*, and *comfort*.
 - *Hypothesis 2c*: Openness will be a positive predictor of perceived effective communication on the total communication score and each subscale of *clarity*, *responsiveness*, and *comfort*.
 - *Hypothesis 2d*: Conscientiousness will be a positive predictor of perceived effective communication on the total communication score and each subscale of *clarity*, *responsiveness*, and *comfort*.
 - *Hypothesis 2e*: Neuroticism will be a negative predictor of perceived effective communication on the total communication score and each subscale of *clarity*, *responsiveness*, and *comfort*.
- *Hypotheses 3*: The Big Five personality traits will be predictive of residual change in perceived effective communication after participating in CM training.
 - *Hypothesis 3a*: Extraversion will be a positive predictor of residual change in perceived effective communication after participating in the CM training.

- *Hypothesis 3b*: Agreeableness will be a positive predictor of residual change in perceived effective communication after participating in the CM training.
- *Hypothesis 3c*: Openness will be a positive predictor of residual change in perceived effective communication after participating in the CM training.
- *Hypothesis 3d*: Conscientiousness will be a positive predictor of residual change in perceived effective communication after participating in the CM training.
- *Hypothesis 3e*: Neuroticism will be a negative predictor of residual change in perceived effective communication after participating in the CM training.

In hypothesis 3, we are expecting the Big 5 personality traits to predict residual change in perceived effective communication, after CM training. Because prior research indicates that personality is predictive of communication (e.g., Harington & Loffredo, 2010; McCroskey, 1977), there is reason to believe that if people of varying personalities partake in the same communication training, we would be able to see the impact (predictive nature) of their personality on their communication results after training. This would mean that personality predicts above and beyond the training itself. Research has shown that personality preferences indeed predict individuals' abilities to learn new skills from training (Oakes et al., 2001). In other words, even if pre-test scores predict post-test (i.e., those who score higher on the pre-test also score higher on the post-test), we would expect personality to predict above and beyond. For instance, we would expect higher levels of extraversion and openness to predict perceived effective communication at the post-test, above and beyond the training, as more extraverted and more open individuals are likely to engage in the training more based on these personality characteristics and therefore receive greater training utility.

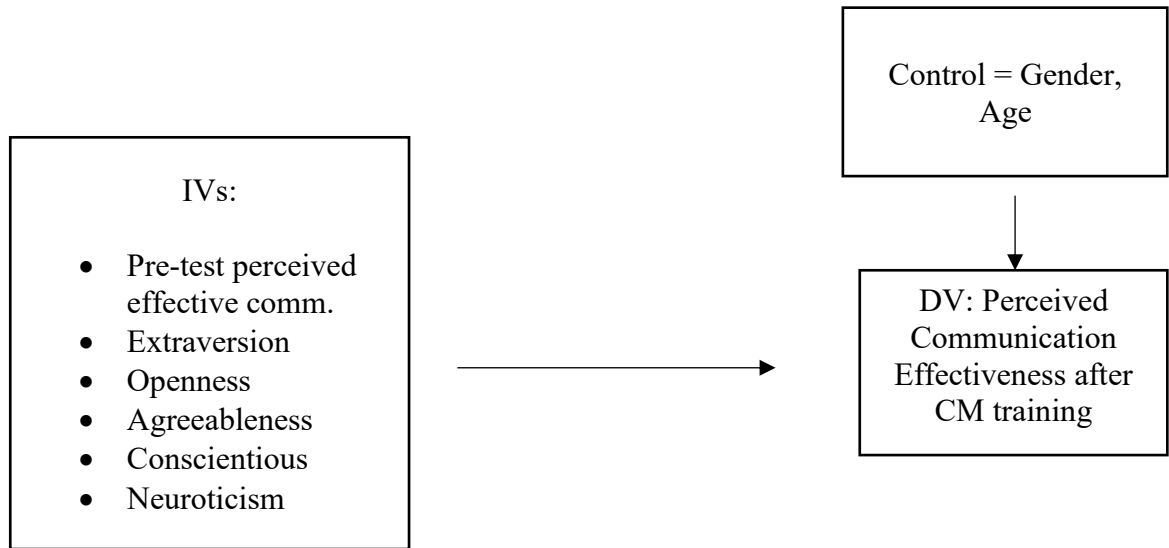


Figure 1. Full Proposed Model. This figure depicts the hypothesized links between key variables in this study.

CHAPTER II

Method

Participants and Sampling

The sample of convenience included 153 participants with the age range of 18 to 68 years of age ($M = 28.54$, $SD = 11.15$) and nearly equal representation of males and females (53% and 46%, respectively, with two participants who declined to answer).

Inclusion Criteria

The focus of the current study was the impact of CoachMotivation on perceived effective communication. For this study, we required participants to be at least 18 years of age and live in the United States.

Recruitment. In this study, data were collected by an independent consulting firm, Collins Alliance, and provided to the researcher as archival data. The Collins Alliance collected data through Prolific, a crowdsourcing platform often used for psychological research (Palan & Schitter, 2018). Using Prolific allows researchers to post computerized tasks, in this case, the CoachMotivation training and associated surveys, that can then be completed by participants who meet the study's minimum requirements (Paolacci & Chandler, 2014). The researcher pays participants for completion of the task.

Prolific was chosen by Collins Alliance as a crowdsourcing platform over other options, such as Amazon's Mechanical Turk (MTurk), due to the platform's more advanced ability in alleviating issues relating to dishonest participants through its prescreening process. In MTurk, data collection relies on the participant to self-report their qualifications for any given study, meaning they could distort responses to gain access to a study in which they wish to participate (Sharpe et al., 2017). Alternatively, Prolific gathers participant characteristics independently of

specific studies, and then all studies are pre-filtered for the individual based on this one-time input of criteria (Palan & Schitter, 2018). Additionally, Prolific allows the researcher to post prescreening questions based on study qualifications, ensuring participants match study criteria before gaining entry. These attributes made Prolific an acceptable crowdsourcing platform for the CoachMotivation study.

Procedure

Prior to deploying the study on Prolific, prescreen criteria were selected (location and age) in the platform settings to filter the participants that were eligible for the study. After the study was officially posted, Prolific sent an email to a random subset of eligible participants, notifying them that the study was available. Those who chose to participate were directed to Qualtrics, an online survey software, where they could complete the training and associated pre- and post-survey.

The study was available on Prolific for less than one week and was removed when the sample size of 153 was collected. Once the study was closed, the Collins Alliance had access to the raw data, which was shared with the researcher of the current study as archival data.

The study was estimated to take one hour: 45 minutes for the video and 7.5 minutes for each survey. Before individuals could proceed with the pre-survey and the training, they had to confirm they met the inclusion criteria and provide informed consent. All participants met the minimum time threshold, and no one exceeded the maximum time allotment of 120 minutes. The average time spent was 1 hour and 4 minutes.

After the screening questions, the participants completed the pre-survey. Upon the conclusion of the pre-survey, participants were immediately directed to a screen to watch the CoachMotivation training. This screen was timed for the length of the training, meaning that

participants did not have the ability to move forward to the post-survey until the entire video had elapsed. Once the video concluded, participants were directed to the post-survey. Only after completion of the pre-survey, training video, and post-survey were participants compensated. Compensation was determined by the amount of time spent in the study ($M = 63.9$ minutes, $SD = 22.4$ minutes) at a rate of \$10 per hour. Additionally, a criterion was set that any individual who took longer than 120 minutes would time out. The results would be expunged to mitigate people playing the video and doing another task, thereby not paying attention. No individuals exceeded the time limit.

Sample Size, Power, and Precision

To confirm an adequate sample size, G*power version 3.1.9.4 was used (Cohen, 1992; Faul et al., 2007). A test for the minimum sample size needed to detect a medium effect size ($f^2 = .15$) at .95 power ($\alpha = .05$) with 6 parameters in the model was conducted. Results indicated a sample size of $N = 146$ participants was required. This was just below the collected sample size of 153.

Measures and Data Sources

Participants were asked to complete two surveys - one directly before and one directly after the training. Both surveys were a compilation of several research-validated measures, described below. The pre-survey consisted of 53 questions regarding communication (Quality of Communication Experience Scale; Liu et al., 2010), emotion-regulation (Cognitive Emotion Regulation Questionnaire-short; Garnefski & Kraaij, 2006), and personality (The BFI-2-Short; Soto & John, 2017). Only the Quality of Communication Experience Scale and the BFI-2 Short were analyzed in the current study. After the session, participants were sent the post-survey,

consisting of the same 23 questions assessing communication and emotion-regulation, and questions asking for demographic information (age and gender).

When presented with the pre-survey, participants were instructed to think of a recent work situation where they worked with one or more individuals, and to consider that experience when answering the survey questions. For the post-survey, participants were asked to consider the same situation and how, if equipped with the skills learned in the training, that same interaction might occur and how they might feel. This framing of pre- and post-test questions was to help contextualize their answers to a given experience.

The Quality of Communication Experience Scale

The Quality of Communication Experience Scale (QCE; Liu et al., 2010) is a 15-item paper and pencil questionnaire designed to measure the perceived clarity, responsiveness, and comfort levels in conversations between oneself and another individual. For each item, participants are asked to rate the statements on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with reverse scoring for items 10 and 11. Higher scores indicate greater communication satisfaction and are achieved by summing the scores for the 15 items. The QCE includes three subscales, clarity (Factor 1), responsiveness (Factor 2), and comfort (Factor 3), each containing five items. Examples include, “The other side responded to my questions and requests quickly during the interaction,” and “I was willing to listen to the other side’s perspectives.”

The 23-item QCE was fielded with employees from multinational organizations who had international work experience ($N = 62$). The sample was comprised of roughly half Americans and half Chinese citizens. Both males (60%) and females (40%) were represented. The 23 items were reduced to 15 after conducting an exploratory factor analysis (EFA). The EFA used to

investigate the factor structure yielded 15 items that met the criteria for significance ($p < .05$) and substantial standardized loadings (above .35). Internal consistency was measured by Cronbach's alpha (Factor 1[clarity], $\alpha = .75$; Factor 2 [responsiveness], $\alpha = .76$; Factor 3 [comfort], $\alpha = .72$). In the present study, Cronbach's alpha in the pre-test for Factor 1, Factor 2, and Factor 3 was $\alpha = .86$, $\alpha = .67$, and $\alpha = .83$, respectively. Cronbach's alpha in the post-test for Factor 1, Factor 2, and Factor 3 was $\alpha = .91$, $\alpha = .57$, and $\alpha = .83$, respectively.

BFI-2-S

The BFI-2-Short (Soto & John, 2017) is a 30-item paper and pencil questionnaire designed to assess five personality domains: Extraversion, Openness to Experience, Neuroticism, Agreeableness, and Conscientious. Each domain consists of three unique facets for a total of 15 facets. For example, openness to experiences is comprised of intellectual curiosity, aesthetic sensitivity, and creative imagination. For each item, participants are asked to rate various statements on a 5-point Likert scale (1 = *Disagree Strongly* to 5 = *Agree Strongly*), with 30 items (6 per domain) being reversely coded.

The BFI-2-S was fielded with two samples: an internet sample ($N = 1000$) and student sample ($N = 416$). Alpha reliabilities of the BFI-2-S domain scales average 0.77 or 0.78 in each sample. The scales' retest reliabilities averaged 0.76 in the university sample and 0.83 in the college sample. This suggests adequate reliability of the short form. In the present study, domain scales averaged 0.81 (Extraversion, $\alpha = .80$; Agreeableness, $\alpha = .80$; Conscientiousness $\alpha = .85$; Neuroticism $\alpha = .86$; Openness $\alpha = .76$).

CHAPTER III

Analyses

Prior to conducting analyses to test the aforementioned hypotheses, the data set was prepared and cleaned. The degree of missingness in the data was assessed to determine which cases and variables had too much missingness and would need to be removed. In the current study, each survey question was forced entry, meaning that one had to answer the previous question to move forward. Additionally, for participants acquired via Prolific to be compensated for their time, they were required to finish the study in its entirety. After reviewing the data, it was confirmed that there was, in fact, no missing data. Aggregate scales were then created for each variable and coded the binary item of gender as 1 (male), 2 (female). All analyses were conducted in SPSS version 27.

Internal consistency reliability estimates were calculated with Cronbach's alpha for each variable in the study, as well as descriptive statistics and correlations. Bivariate correlations were assessed to determine if gender and age should be included in the analyses. These covariates were only included in analyses where they were significantly related to the outcome variable.

Hypothesis 1 was tested by conducting paired-samples t-tests with pre-and post-test scores. A paired samples t-test is an inferential statistic used to determine if there is a significant difference between the means of two groups. In the current study, the paired samples t-test was used to determine if the group means increased from pre-to post-test after participating in CM training. In other words, it's looking to see if participation in training resulted in increased perceived effective communication scores. Paired samples t-tests were conducted for the total effective communication scale and each of the three factors: *clarity*, *responsiveness*, and *comfort*.

Hypotheses 2 and 3 were tested using hierarchical regression. Separate hierarchical regressions were conducted for the total effective communication scale and each of the three factors: *clarity*, *responsiveness*, and *comfort*. Hierarchical regression is a type of Ordinary Least Squares (OLS) regression that allows examination of model variance explained by multiple predictors. It is a series of successive linear regression models, whereby adding each predictor or set of predictors separately into the equation, one can examine whether each variable of interest predicts the dependent variable above and beyond the effect of the others. In the current study, covariates (e.g., gender and age) were added simultaneously in block one, and all personality variables were entered as simultaneous predictors in block two. This test examined whether the Big Five traits were predictive of perceived effective communication (hypothesis 2) and whether they predicted residual change in perceived effective communication after participating in CM training (hypothesis 3).

Results

Data Preparation and Cleaning

Originally, data were collected from a total of 153 individuals through Prolific. All participants satisfied the prescreening criteria. There were no duplicate cases and no missing data. Therefore, the final sample size consisted of all 153 individuals.

Assumption Testing and Preliminary Analyses

Before conducting the focal analyses, assumptions were checked. For paired-samples t-test, assumptions include: (a) having a continuous dependent variable; (b) independent observations; (c) normal distribution; and (d) no outliers. For regression, assumptions include: (a) normally distributed predictors and outcome variables; (b) normal distribution of residuals in the relationships between predictors and outcome variables; (c) linearity between the predictors

and outcome variables; and (d) homoscedasticity in the relationships between predictors and outcome variables.

The dependent variable was continuous, and observations were independent. The assumptions of normal distribution, nonexistence of outliers, linearity, and homoscedasticity were assessed visually by examining histograms of predictors and outcome variables, plots of residual values (unstandardized residuals were plotted on the y-axis, and the predictor variables on the x-axis), and scatterplots between predictors and outcome variables. Visual inspections revealed sufficiently normal distribution, nonexistence of outliers, and linear relationships. Visual inspections were also used to assess homoscedasticity, which is the spread of the distribution of the errors around the best fitting line across all values of the predictor. Visual inspection indicated insufficient reason to suspect that there were problematic levels of heteroscedasticity between predictors and outcomes. To determine the noteworthy (significant) relationships between variables, bivariate correlations were examined (see [Table 1](#)).

To determine whether gender and age needed to be retained as covariates, the bivariate correlation between gender and the communication outcomes and age and communication outcomes were examined. Gender was significantly correlated with *comfort* ($r = -.34, p < .01$), such that females reported higher levels of comfort. Gender was not significantly correlated with *clarity* ($r = -.01, p = .89$) nor *responsiveness* ($r = -.02, p = .79$). Therefore, gender was only included in the subsequent analyses in which *comfort* was an outcome variable. Age was significantly correlated with *responsiveness* ($r = .18, p < .05$) and *comfort* ($r = .28, p < .01$), but not with *clarity* ($r = .11, p = .19$). Therefore, age was only included in the analyses in which *responsiveness* and *comfort* were outcome variables.

Table 1
Means, Standard Deviations, Internal Consistencies, and Correlations

Measure	M	SD	1	2	3	4	5	6	7	8	9	10
1. Age	28.54	11.12	-									
2. Gender	1.48	0.53	-.05	-								
3. Clarity	5.59	1.18	.11	-.01	-							
4. Responsiveness	5.12	1.73	.18*	-.02	.23**	-						
5. Comfort	5.00	1.60	.28**	-.34**	.34**	.19**	-					
6. Extraversion	16.57	5.65	.30**	-.11	.15	.18*	.46**	-				
7. Agreeableness	22.05	4.49	.27**	-.04	.19*	.14	.18	.24**	-			
8. Conscientiousness	19.96	5.34	.30**	.00	.14	.04	.25	.49**	.28**	-		
9. Negative Emotionality	18.29	6.05	-.39**	.35**	-.19	-.12	-.40	-.49**	-.24**	-.52**	-	
10. Openness	23.42	4.80	.08	.11	.18*	.05	.06	.26**	.19**	.25**	-.17**	-

Note. N = 153. Sex is coded 1 = Male and 2 = Female.
* p < .05 level (two-tailed). ** p < .01 level (2-tailed).

Primary Analyses

Hypothesis 1

In Hypothesis 1, it was proposed there would be an increase in perceived effective communication after participating in CoachMotivation training on the total communication scale, as well as for each subscale of *clarity*, *responsiveness*, and *comfort*. Paired-samples t-tests were used to test this hypothesis. Hypothesis 1 was supported. The findings indicate CM training resulted in increased perceived effective communication for the total communication scale, $t(152) = -8.19, p < .001, d = .66$, as well as for each of the three communication scale factors: *clarity*, $t(152) = -6.83, p < .001, d = .55$; *responsiveness*, $t(152) = -6.56, p < .001, d = .53$; and *comfort* $t(152) = -7.13, p < .001, d = .58$. Typically, $d = .2$ is considered a small effect size, $.5$ is considered a medium effect size, and $.8$ is considered a large effect size (Cohen, 1992). All tests of hypotheses 1 resulted in a moderate effect size.

Hypothesis 2

In hypothesis 2, it was proposed that personality variables would predict perceived effective communication concurrently. Hierarchical regression was used to test whether each of the Big Five personality variables (Extraversion, Openness, Agreeableness, Conscientiousness, and Neuroticism) predicted perceived effective communication on the pre-test, looking first at the total communication scale, and then individually for each of the three factors: *clarity*, *responsiveness*, and *comfort*. All personality traits were entered as simultaneous predictors in the hierarchical regression. Hypothesis 2 was partially supported. Results are displayed in [Tables 2-5](#) below and revealed the following:

Testing prediction of personality on total communication scale. Extraversion was the only personality trait predictive of overall perceived effective communication on the pre-test, after controlling for age and gender. All other personality traits were not predictive.

Testing prediction of personality on clarity scale. Personality was not predictive of perceived effective communication on the pre-test for the *clarity* scale:

Testing prediction of personality on responsiveness scale. Personality was not predictive of perceived effective communication on the pre-test for the *responsiveness* scale, controlling for age.

Testing prediction of personality on comfort scale. Extraversion was the only personality trait predictive of overall perceived effective communication on the pre-test for the *comfort* scale, controlling for age and gender. All other personality traits were not predictive.

Table 2
Hierarchical Regression Analysis Summary for the Relationship Between Personality and Pre-Test Perceived Overall Communication Effectiveness

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.13	.13**
Constant	14.73	.1.00	14.71	<.001		
Age	.08	.02	3.60	<.001		
Female Gender	-1.30	.47	-2.76	.007		
Model 2					.25	.12**
Constant	12.38	2.21	5.60	<.001		
Age	.04	.02	1.74	.084		
Female Gender	-.89	.49	-1.81	.072		
Extraversion	.19	.06	3.37	<.001		
Agreeableness	.06	.05	1.17	.244		
Conscientiousness	-.05	.06	-.90	.371		
Neuroticism	-.06	.05	-1.16	.249		
Openness	.02	.05	.32	.749		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Table 3

Hierarchical Regression Analysis Summary for the Relationship Between Personality and Pre-Test Perceived Communication Effectiveness – Clarity

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.07	.07**
Constant	4.75	.19	5.82	<.001		
Extraversion	.00	.02	.21	.833		
Agreeableness	.03	.02	1.35	.179		
Conscientiousness	-.01	.02	-.26	.799		
Neuroticism	-.02	.02	-1.31	.192		
Openness	.04	.02	1.74	.084		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Table 4

Hierarchical Regression Analysis Summary for the Relationship Between Personality and Pre-Test Perceived Communication Effectiveness – Responsiveness

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.03	.03**
Constant	4.72	.29	16.098	<.001		
Age	.02	.01	2.279	.024		
Model 2					.07	.04
Constant	4.30	1.01	4.26	<.001		
Age	.02	.01	1.55	.123		
Extraversion	.04	.03	1.69	.092		
Agreeableness	.03	.03	1.20	.232		
Conscientiousness	-.03	.03	-1.39	.167		
Neuroticism	-.01	.02	-.21	.835		
Openness	.00	.02	-.03	.980		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Table 5
Hierarchical Regression Analysis Summary for the Relationship Between Personality and Pre-Test Perceived Communication Effectiveness –Comfort

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.18	.18**
Constant	4.52	.61	7.47	<.001		
Age	.05	.01	3.54	<.001		
Female Gender	-1.26	.29	-4.40	<.001		
Model 2					.32	.14**
Constant	3.36	1.31	2.56	.012		
Age	.02	.01	1.66	.099		
Female Gender	-1.00	.29	-3.42	<.001		
Extraversion	.14	.03	4.24	<.001		
Agreeableness	.01	.03	.19	.847		
Conscientiousness	-.01	.03	-.23	.822		
Neuroticism	-.03	.03	-.92	.359		
Openness	-.02	.03	-.51	.609		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Hypothesis 3

In hypothesis 3, it was proposed that personality variables would predict residual change in perceived effective communication after participating in CM training. Hierarchical regression was used to test whether each of the Big Five personality variables (Extraversion, Openness, Agreeableness, Conscientiousness, and Neuroticism) predicted residual change in perceived effective communication on the post-test, looking first at the total communication scale, and then individually for each of the three factors: *clarity*, *responsiveness*, and *comfort*. All personality traits and pre-test scores of communication were entered as simultaneous predictors in the hierarchical regression. Hypothesis 3 was partially supported. Results are displayed in [Tables 6-9](#) below and revealed the following:

Testing prediction of personality on total communication scale after CM. When testing the prediction of the residual variance on the total communication scale, after controlling for age and gender, Openness was the only personality trait that was statistically significant. All

other personality traits did not predict residual variance in perceived effective communication after participating in CM training.

Testing prediction of personality on *clarity* scale after CM. No personality traits predicted residual variance in perceived effective communication on the *clarity* scale after participating in in CM training.

Testing prediction of personality on *responsiveness* scale after CM. No personality traits predicted residual variance in perceived effective communication on the *responsiveness* scale after participating in in CM training.

Testing prediction of personality on *comfort* scale after CM. Openness was the only personality variable predictive of residual variance in perceived effective communication on the *comfort* scale after participating in CM training. All other personality variables were insignificant.

Table 6
Hierarchical Regression Analysis Summary for the Relationship Between CoachMotivation Training, Personality, and Post-Test Perceived Overall Communication Effectiveness

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.03	.03
Constant	16.01	.93	17.31	<.001		
Age	.04	.02	1.93	.056		
Female Gender	-.28	.44	-.64	.523		
Model 2					.38	.35**
Constant	5.74	1.95	2.94	.004		
Age	-.02	.02	-.84	.405		
Female Gender	.28	.40	.68	.496		
Extraversion	.06	.05	1.19	.235		
Agreeableness	.07	.05	1.48	.141		
Conscientiousness	.02	.04	.36	.719		
Neuroticism	-.01	.04	-.12	.906		
Openness	.09	.04	2.04	.043		
Pre-test comm.	.42	.07	6.28	<.001		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Table 7
Hierarchical Regression Analysis Summary for the Relationship Between CoachMotivation Training, Personality, and Post-Test Perceived Communication Effectiveness - Clarity

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.28	.28**
Constant	3.20	.61	5.22	<.001		
Extraversion	.01	.01	.93	.353		
Agreeableness	.00	.01	.13	.900		
Conscientiousness	.00	.01	.23	.817		
Neuroticism	.00	.01	.29	.772		
Openness	.02	.01	1.71	.090		
Pre-test comm.	.35	.06	6.16	<.001		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Table 8
Hierarchical Regression Analysis Summary for the Relationship Between CoachMotivation Training, Personality, and Post-Test Perceived Communication Effectiveness - Responsiveness

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.02	.02
Constant	5.67	.27	21.35	<.001		
Age	.00	.01	.50	.619		
Model 2					.31	.31**
Constant	3.25	.82	3.95	<.001		
Age	-.01	.01	-1.27	.205		
Extraversion	.00	.02	.07	.947		
Agreeableness	.03	.02	1.29	.200		
Conscientiousness	-.01	.02	-.56	.579		
Neuroticism	-.01	.02	-.71	.479		
Openness	.01	.02	.35	.724		
Pre-test comm.	.48	.06	7.47	.001		

Note. *N* = 153. *SE* = standard error. * *p* < .05 level (two-tailed). ** *p* < .01 level (2-tailed).

Table 9

Hierarchical Regression Analysis Summary for the Relationship Between CoachMotivation Training, Personality, and Post-Test Perceived Communication Effectiveness – Comfort

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>R</i> ²	ΔR^2
Model 1					.06	.06*
Constant	4.45	.60	7.46	<.001		
Age	.03	.01	2.47	.015		
Female Gender	-.44	.28	-1.57	.119		
Model 2					.39	.33**
Constant	-.90	1.18	-.77	.445		
Age	-.00	.01	-.18	.858		
Gender	.02	.27	.09	.929		
Extraversion	.03	.03	1.07	.284		
Agreeableness	.05	.03	1.87	.064		
Conscientiousness	.03	.03	.95	.344		
Neuroticism	.02	.03	.54	.593		
Openness	.06	.03	2.14	.034		
Pre-test comm.	.44	.07	6.03	<.001		

Note. *N* = 153. *SE* = standard error. **p* < .05 level (two-tailed). ***p* < .01 level (2-tailed).

CHAPTER IV

Discussion

Summary of Findings

CoachMotivation Training and Perceived Effective Communication.

Hypothesis 1 examined whether perceived effective communication would increase after participating in CM training. This hypothesis was supported, with CM training being associated with a positive increase in the total communication scale and each communication factor scale (*clarity, responsiveness, and comfort*). The CM training was built on the fundamental components of MI (open-ended questions, affirmations, reflections, and summary statements; Miller & Rollnick, 2013) and the results were consistent with prior research on the use of MI for behavior change. Support of this hypothesis provides the foundation for future studies on the efficacy of CM training as it relates to effective communication. While this pilot study shows a connection between CM training and perceived effective communication, it fails to test results extended over time (i.e., examining a follow-up to determine how long effects persisted), nor does it capture others' perceptions of trainee communication change. Thus, future research would do well to include additional follow-up assessments for longitudinal study and additional measures beyond self-report, such as manager and peer pre- and post-evaluations of their coworker. Adding measures beyond self-report would help discern if communication skills were truly enhanced or if the change was in belief of one's communication skill level only. Additionally, it would be interesting to conduct CM training within various organizations and test whether environmental effects influenced training outcomes. Nonetheless, the significance of the current study's results bodes well for using CoachMotivation to improve workplace communication.

The Five-Factor Model Personality Traits and Perceived Effective Communication.

Hypotheses 2 examined the predictive nature of personality on individuals' baseline perceived effective communication scores (e.g., pre-test scores). Of the five personality traits, Extraversion was the only trait predictive of effective communication before participating in CoachMotivation training. Furthermore, it was only predictive of the total perceived effective communication scale and the *comfort* scale; Extraversion was not predictive of the *clarity* nor *responsiveness* scale.

Hypothesis 3 examined whether personality predicted the residual change in communication scores (pre- to post-test scores) after participating in the CoachMotivation training. Of the Big Five personality traits, only Openness was predictive of residual change. Additionally, Openness was only predictive of residual change for the total communication scale and the *comfort* scale; Openness did not predict residual change of the *clarity* nor *responsiveness* scale.

Based on prior research surrounding the Big Five, their relationship to communication (Molinuevo & Torrubia, 2013), and the likelihood to learn from training (Crant & Bateman, 2000), it was surprising that only Openness predicted residual change in perceived effective communication after participating in the training. Considering that Agreeableness was just shy of statistical significance in predicted residual change, it's possible the study failed to pick up a relationship that does exist (Type II error, false negative) due to insufficient power for smaller than expected effects, or perhaps there is truly no meaningful relationship between personality and the effects of CM training. This is a question that should be explored in future research.

Implications

The outcomes of effective communication in the workplace go beyond impacting business measures such as ROI and include workplace behaviors such as trust (Rawlins, 2009; Mayfield & Mayfield, 2017), employee engagement (Wayne et al., 2007; Karanges et al., 2015), organizational commitment, and job satisfaction (Men & Stacks, 2014; Robinson et al., 2014). These key characteristics may also be predictive of transformational leadership as they relate to each of the transformational pillars espoused by Bass (1985).

Despite the known need for effective communication, research indicates that a lack of effective communication within the workplace is pervasive, with deleterious outcomes impacting businesses in a variety of sectors (Grossman, 2011; PMI, 2013; CRICO, 2016). Research also indicates that coaching can enhance communication and workplace relationships by improving competence and self-esteem (Strickland, 1997). Moreover, asking open-ended questions and actively listening, two fundamental components of CoachMotivation, are easily coachable skills that serve as a powerful leadership technique, improving followers' sense of competence, relatedness, and autonomy (Van Quaquebeke & Felps, 2018).

The current study contributes a meaningful contribution to the literature on communication in three ways. First, it indicates that perceptions of effective communication can be enhanced through communications training. Second, it suggests that communications training may shape communication skills regardless of one's personality dispositions. Third, this research indicates that the use of Motivational Interviewing skills can be useful outside the realm of clinical psychology. Specifically, using the OARS framework of MI, this study speaks to the importance of respectful inquiry, or the motivational power of asking open-ended questions and listening intently (Van Quaquebeke & Felps, 2018). The current study's outcomes reinforce

previous research suggesting open-ended questions promote feelings of competence, which can lead to increased motivation as people feel more self-efficacious in their work (Van Quaquebeke & Felps, 2018). Feelings of competence and efficacy beliefs are seen in the current study through the increased perceptions of effective communication ability. The results of this study paint a straightforward picture that CoachMotivation training may help increase perceived effective communication, a key component in developing transformational leadership ability.

Implications for Practice

The results of this study provide some practical implications for organizations. First, this study's primary focus was to examine the relationship between CoachMotivation training and perceived effective communication. This relationship was found to be statistically and positively significant, suggesting that CoachMotivation may be useful in enhancing communication.

Second, a practical implication is the finding that few of the personality traits were significant both in predicting baseline perceived effective communication and in predicting residual change from pre- to post-test scores after participating in CM training. A long-time debate questions whether personality is stable or context dependent (Bem & Allen, 1974). Mischel and Shoda (2008) suggest that the answer may not be either/or. Instead, personality is a combination of state (situational) and trait-like (stable) qualities. Behavior may vary in any given situation, but there is a consistency in the variation for any given individual. This trait versus state debate is important for learning and development practitioners to understand as they consider the implementation of CM training and should help alleviate concerns about the training efficacy. Because there is predictable variation in behavior within an individual, and personality was found to be of little impact to the results, it is a logical assumption that regardless of the situation for which the training was given, personality would continue to have little effect on

training outcomes. Therefore, there is no need to worry that some individuals, based on their personality, would have barriers to learning the material.

While the findings of this study indicate increased perceived effective communication after participating in CM training, the context in which the training is given could influence the strength of training knowledge transfer. It would be important for learning and development teams to provide the training in a context as close to the work environment as possible to help strengthen the transfer of training (Kraiger & Culbertson, 2013).

Another practical implication of CoachMotivation is its use as a coaching tool. Prior research shows positive outcomes of respectful inquiry, or open-ended questions coupled with active listening (Van Quaquebeke & Felps, 2018). CM goes beyond the open-ended questions of respectful inquiry and builds a broader framework, incorporating affirmations, reflections, and summary statements. CM is inherently a coaching tool, for when one person speaks to another using the OARS framework, they are not only eliciting a response from the other individual but are also modeling the skills of asking open-ended questions, affirmations, reflections, and summary statements. CM based conversations are fundamentally coaching conversations, whether realized or not by participants. By implementing the CM training within the workplace context, one individual's communication changes could potentially spread across the broader organization as that individual interacts with their colleagues and models the OARS framework. This is of importance for learning and development teams as they seek to find trainings that will be impactful. While the current study was not conducted in the workplace, the online training included modeling on how to use OARS, and it is reasonable to believe the effects of receiving this modeling behavior via video would translate to experiencing this modeling behavior in person, as nothing changes other than the modality of how the information is presented.

Training research suggests that information provided in a context similar to where that information will be used and providing practice opportunities to trainees results in higher transfer of training (Kraiger & Culbertson, 2013). Thus, one could postulate that by conducting the CM training in the work context, providing practice opportunities to develop the OARS skills within the training, and providing the opportunity for immediate implementation would strengthen transfer of training by the participant to their work, and promote the use of OARS by others on their work team through modeling behavior.

Lastly, a significant practical implication of positive note lies in CM's virtual nature and self-study pedagogy. In today's environment, where we are spending more time working and learning remotely, many companies are looking to provide additional resources to their employees while maintaining a conservative budget. The fact that significant differences in perceptions of communication were found after only one hour-long training shines a light on the notion that communication training need not take extreme time nor resources from an organization to have an impact on participants. With the ease of use and impactful results, the CM training is a great resource to equip employees with learning and development opportunities that can be applied directly on the job without taking extended time or monetary resources. It is ever more important considering the distal impacts of communication, such as employee trust and engagement.

Implications for Future Research

This pilot study lays the groundwork for a multitude of future research projects focused on communication.

A first line of future study could look at the personality-communication relationship. The current study found little predictive nature of personality on one's perceived effective

communication. Despite the results not supporting the original hypotheses, the implications are encouraging, suggesting that personality may not impact communication as much as was hypothesized. The personality and communication relationship, specifically communication as an outcome of CM training, is an area of research to be further explored. For example, future research could test personality as a moderating factor of CM, examining whether the level of one's personality traits strengthen or diminish the effects of CM on perceived effective communication.

A second line of study could focus on communication and more distal behavioral outcomes. At the beginning of this report, communication was discussed as a fundamental underpinning for developing the skills necessary for being a transformational leader. By focusing on increasing workplace communication, CM training could do more than increase communication in and of itself. Implications for research include a deeper dive into the distal outcomes of communication such as trust (Mayfield & Mayfield, 2017; Rawlins, 2009), employee engagement (Karanges et al., 2015; Wayne et al., 2007), job satisfaction (Men & Stacks, 2014; Robinson et al., 2014) and transformational leadership.

Employee Trust. In today's interconnected and matrixed workplace, there is little work that is not done collaboratively. Even when individuals own the task they work on, there is often an aspect of teamwork such as sharing ideas and information, integrating multiple perspectives, and coordinating work so that dependencies are accomplished accordingly. Organizational structure and team formation are often configured to help collaboration occur (Edmondson, 2004). In Hackman's (1987) seminal work, he proposes a defining characteristic of teams to be the need for different individuals to work together to achieve a shared outcome. This shared outcome is the impetus for collaborating, yet collaboration falls short in the absence of trust.

The crux of a team's ability to collaborate lies in the trust they have for one another. Mayer et al. (1995) conceptualize trust as "the willingness of a party to be vulnerable to the actions of another party, based on the expectation that the other will perform a particular action important to the truster, irrespective of the ability to monitor or control the other party" (p.712). A related construct is that of psychological safety, or team members' beliefs that there will not be retribution should one make a mistake as they work towards accomplishing their goals (Edmondson, 1999). In 2016, Google conducted Project Aristotle to determine what makes a great team (Duhigg, 2016). To assess perceptions of what made one's team effective, Google's research team conducted hundreds of double-blind interviews and pulled data from existing company surveys surrounding group dynamics, skill sets, personality traits, and emotional intelligence. After analyzing all the data, researchers found it wasn't so much a matter of *who* was on the team, but rather, what made the team effective was *how* the teammates worked together. The statistical analysis provided five key traits of the most effective teams, listed from least to most important:

1. Impact: teams are more effective when they believe their work matters and creates change.
2. Meaning: when work is personally important to the team members, they show higher performance.
3. Structure and Clarity: teams with clear goals, plans, and role responsibilities are more effective than less structured teams.
4. Dependability: team members finish work on time and achieve a standard of excellence when they can depend on one another.

And the number one aspect of effective teams, which is not only necessary for performance, but also an essential antecedent for the other four components of effective teams:

5. Psychological safety – teams are the most effective when team members feel safe to take risks and be vulnerable.

In order for this psychological safety and associated trust to exist, there must be communication. Without communication, clear expectations could not be established, and the transparency needed for psychological safety would not be achieved.

Google's study reiterates what we already know concerning the communication-trust relationship, their interconnectedness, and that communication is fundamental for building trust (see Anderson & Narus, 1990; Webster & Wong, 2008; Chory & Hubbell, 2008). Future research could aim to understand if organizations could improve their employees' communication skills by implementing CM and enhance their teams' abilities to communicate and develop the trust and psychological safety that could help them succeed in their endeavors.

Organizational Commitment. Commitment refers to an individual's sense of belonging to, identification with, and engagement within an organization (Allen & Meyer, 1990). It is the sense of loyalty that drives employees to act in the organization's best interest, inasmuch as putting forth increased effort and time at the company. Multiple studies have been conducted on organizational commitment, focused on increasing loyalty in an effort to reap its benefits such as increased productivity (Mayfield, 2000), decreased employee turnover (Cascio, 1998), and employee effort (Sager & Johnston, 1989). Carter and Zabkar (2009) go as far as to suggest that no constructs are affecting organizational outcomes more than commitment.

A fundamental component in creating organizational commitment amongst one's workforce is communication. When leader communication is clear and effective, employee

commitment rises as they are more likely to understand the vision and see how their work relates to the organization's overarching goal (e.g., Goleman, 2000; Reina & Reina, 1999). Future research on CoachMotivation training could be tied to commitment measures. For instance, one could hypothesize that using CM to increase communication amongst workplace supervisors would result in increased organizational commitment by their employees.

Employee Engagement. Employee engagement is a widely studied topic in academia and applied settings (Shuck & Wollard, 2010). The literature suggests that for many organizations, employee engagement has not increased in over a decade (Mann & Harter, 2016). Numerous variables impact one's engagement, such as task variety (Morgeson & Humphrey, 2006), tenure (van der Wsthuizen & Bezuidenhour, 2017), travel demands (Niessen et al., 2018), leadership style (Judge & Piccolo, 2004; Breevaart et al., 2014), and many others. Amongst the list of engagement predictors lies communication (Wayne et al., 2007; Karanges et al., 2015).

The lack of engagement within organizations is startling – it is reported that only 13% of employees worldwide are engaged, the United States faring better, but still with room for improvement, at roughly 32% (Mann & Harter, 2016). Within an organization, communication provides information where necessary and helps create a sense of community (Friedl & Vercic, 2011). Empirical and industry research has recognized communication as an underlying influencer of employee engagement (Karanges et al., 2015).

When organizations are looking to provide developmental training to their employees, there is often a desire to choose something comprehensive, a training that will appeal and help develop most people, and one which gives the organization the “most bang for their buck.” There is an opportunity to research whether implementing CM training could be a practical way to help employees enhance their skills while helping the organization improve in additional areas such

as employee engagement. Further investigation is needed to understand if employees who participate in CM training report greater levels of engagement.

Job Satisfaction. Job satisfaction is the extent to which one has favorable or positive feelings about work (Hoppock, 1935). Job satisfaction is an important organizational characteristic, as it is related to performance (Judge et al., 2001), productivity and profit and turnover (Harter et al., 2002), and mental health (Faragher et al., 2005).

Dimensions of work related to satisfaction include quality of relationships, pay, working conditions, recognition, and participation in decision making, to name a few. Many of these are related to communication (Gaertner, 2000; Miles et al., 1996). Often, the relationships are a spectrum – the right amount of communication has positive results on satisfaction, and too much communication results in harmful outcomes. In other words, as discussed early on in this report, much of the connection between effective communication and job satisfaction may be explained by Herzberg's Motivator-Hygiene Theory: communication acts as a hygiene factor where effective communication may not in and of itself increase job satisfaction, but poor communication will have a negative impact on job satisfaction (Herzberg, 2003).

For instance, some direction and oversight are needed to understand the nature of assigned tasks, yet excessive communication may result in decreased job satisfaction (Miles et al., 1996). Supportive communication is related to satisfaction, while a lack of support may reduce satisfaction (Eisenberger et al., 1997; Iverson, 2000). Participation in decision-making discussions impacts job satisfaction, especially when related to the work environment (Vroom, 1964). Much like with job satisfaction, there is reason to believe that implementing a training such as CM is a practical way for organizations to help their employees improve upon their

communication and enhance workplace attitudes such as job satisfaction. Future studies could seek to understand if employee participation in CM training predicts job satisfaction.

Transformational Leadership. As discussed at the beginning of this report, transformational leadership (Bass, 1985) is comprised of four components – inspirational motivation, idealized influence, intellectual stimulation, and individualized consideration – each of which can be related to communication. There may be more meaningful transactions between leader and follower when there is effective communication, increasing trust and integrity. Communication, therefore, serves as a necessary skill to becoming a transformational leader. It would be interesting to conduct future research on leadership and CoachMotivation training. Specifically, it would be interesting to conduct a longitudinal study measuring communication effectiveness across a wide array of workers and analyze the skills and behaviors of those who end up in leadership positions versus those who don't. An additional study of interest would be a test of which forms of leadership (e.g., transformational, authoritarian, democratic, etc.) are most impacted by communication skills training. On-going studies of CoachMotivation could help us understand the impact communication training has at the leadership level.

Limitations

Several limitations should be taken into consideration when reviewing the results of this study. First, it is impossible to make causal conclusions as this study did not utilize an experimental design (Shadish et al., 2002). Without an experimental setting, study findings are inconclusive regarding whether the training resulted in an increase in post-test scores or if there were additional variables influencing results. This kind of open-trial design is common and suggests that the intervention had some effect, but randomized trials are the next step in the

process of intervention, and a necessary next step for determining the effect of CoachMotivation training on perceived effective communication

A main concern with using online training is the inability to be present with participants, ensure participants are engaging in the material, and answer any questions as they arise. While the use of Prolific increases the efficacy of experimental implementation, providing all participants with identical implementation, it does not provide a uniform environment for the study. The use of page timings and knowledge capture questions are used to check on participant engagement, but ensuring engaged participants is still a challenge. There is no way for us to test if participants participated with their full attention or engaged in other activities simultaneously.

Lastly, mono-method bias, or the fact that all the measures in this study were self-reported, could have influenced the study results (Shadish et al., 2002). Also, while the QCE was chosen based on its workplace practicality (e.g., the communication facets are related to workplace communication functions) and based on its validity, there is concern that the scale may not have fully captured the construct. Communication is a multifaceted variable, and the QCE does not capture all components of communication. Further research should consider using multiple methods to gather data and investigate additional communication measures that may more fully capture the construct.

Conclusion

Communication enables people to form and maintain relationships, to share information, and to help them understand the world around them. It is an essential thread without which the fabric of society would unravel. In the working environment, we need communication to help us collaborate and make progress towards work objectives. The better we are at communication, the more effective we can be at achieving our goals.

This pilot study found that CoachMotivation training positively predicted perceived effective communication, regardless of personality. Furthermore, it provided proof of concept for virtual training having a positive impact on behavior in our ever-expanding work-from-home world. Prior research indicates the relationship between communication and many outcomes such as organizational trust, employee engagement, job satisfaction, and the ability to acquire the necessary skills to be a transformational leader. Leveraging short trainings with meaningful impact, such as the CM training, may help develop our workforce and create future leaders.

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