

Jeffrey O. Nuckols, THE IMPACT OF COGNITIVE COMPLEXITY ON IMPRESSION MANAGEMENT (Under the direction of Dr. Jennifer Bowler) Department of Psychology, July 2014

This study seeks to add to the knowledge of cognitive complexity by examining its relationship with impression management and social desirability. In light of past studies a positive relationship between cognitive complexity and impression management was expected. This predicted relationship was found to exist, thereby increasing knowledge of the construct of cognitive complexity. Furthermore, relationships between cognitive complexity, social desirability, and impression management were expected, with social desirability moderating the relationship between cognitive complexity and social desirability. The results of this study did not support the hypothesized relationships involving social desirability; in fact, the results ran counter to those predicted. However, these findings raise interesting questions for future research. Both the expected findings and those which were unexpected add to the body of knowledge about cognitive complexity and point to the need for continued research on this topic.

The Impact of Cognitive Complexity on Impression Management

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by

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## CHAPTER I: INTRODUCTION

Within the field of psychological inquiry, the quest to understand and predict human behavior has garnered considerable empirical attention. This undertaking may appear to be straightforward because, theoretically, if one has knowledge of all the factors that cause a behavior and how they relate, it may be possible to predict behavior. However, predictive precision is currently low because the factors that contribute to behaviors are very numerous. In light of the myriad of factors, researchers attempt to narrow the scope and seek to understand the impact of a single factor or two on a limited range of behaviors.

One behavior that warrants continued research is impression management, defined by Leary and Kowalski (1990) as the process individuals undertake in an attempt to control or manipulate the perceptions that others form about them. Continued research on impression management, as opposed to any number of other behaviors people perform, is of the utmost importance due to the fact that impression management may potentially shape countless events in a person's life (Leary & Allen, 2011). Most people try their best to make a favorable impression on others because of the importance of interpersonal interaction in a person's life (Holoien & Fiske, 2013). However, impression management is accomplished with varying degrees of success. Furthermore, impression management is a multidimensional construct that individuals employ in many different ways (Leary, Allen, & Terry, 2011). In light of the many ways that individuals attempt to present themselves in an enhanced light, researchers have attempted to develop strategies to detect people's efforts to present themselves in an inaccurate manner (Gatewood, Feild, & Barrick, 2011; Wiener, 1948). Although these methods are effective to a certain extent, additional research is needed (Schmitt & Kuncze, 2002; Schmitt et al., 2003; Wiener, 1948). Subsequently, it is increasingly important to clarify the factors that

influence impression management in order to better understand the way that impression management operates so as to reduce its effects.

Cognitive complexity, an internal construct that influences people's interactions by aiding in the interpretation and consolidation of the information they take in from the world around them (Bieri, 1955), is ideally situated as a factor that may affect impression management processes. However, the relationship between cognitive complexity and impression management has yet to be examined, despite the fact that cognitive complexity affects several of the activities necessary for impression management, including communication strength and style as well as goal incorporation (Burlison, 1987; O'Keefe & Delia, 1982; O'Keefe & Shepherd, 1989). Thus, it appears plausible that cognitive complexity may influence a person's impression management style and effectiveness. In light of this, this study seeks to determine whether higher levels of cognitive complexity are indeed associated with increased impression management efforts. Furthermore, it explores individuals' propensity to promote themselves in a socially desirable manner as a possible moderator of the relationship between cognitive complexity and impression management.

### **The Importance of Impression Management**

It may be said that impression management is one of the most important undertakings a person will engage in throughout life, as the results of the person's attempts to manage impressions continually shape the course of his or her life (Leary & Allen, 2011). In light of this, it is not surprising that people try their best to make a good impression on others (Holoien & Fiske, 2013). As people seek to make favorable impressions, it should follow that we generally project the same traits and behaviors we like to see manifested by other people. Research supports this idea, as warmth and competence have been shown to be the two dimensions of

greatest interest when an individual is forming an impression of someone else (Fiske, Cuddy, & Glick, 2007) and are the top impressions people seek to convey to others (Nezlek, Schutz, & Sellin, 2007). Taken together, these findings provide evidence relating to the connection between the traits that people look for in others as well as the traits individuals attempt to project to others. However, the relationship between interpretation and projection is far from simple; research suggests that in some situations individuals actually downplay warmth in an effort to appear more competent, or in other scenarios, people downplay their competence in an effort to appear warmer to the individuals with whom they are interacting (Holoien & Fiske, 2013).

### **Overview of Impression Management**

These basic examples illustrate how frequent impression management is in daily life and how pervasive it can be in shaping others' viewpoints. However, the construct itself warrants more scientific exploration. Self-presentation as presented by Goffman (1959), or impression management as it would eventually grow to be called, has been the focus of considerable research since it was introduced as a fundamental interpersonal process (Leary & Allen, 2011). Simply stated, impression management denotes the process by which individuals attempt to control the impressions others form about them (Leary & Kowalski, 1990; Rosenfeld, Giacalone, & Riordan, 1995), and research in this domain examines the way in which behavioral choices reflect a desire to manipulate the perceptions of others (Bozeman & Kacmar, 1997).

However, this cursory overview does not adequately address all that falls under the broad umbrella of impression management. For instance, Schlenker (1980) proposes that self-presentation, a subcategory of impression management, is not adequately represented by its designation and deserves to be considered as a distinct construct, with the distinction hinging on the self-relevance of the image the individual seeks to project. Furthermore, some researchers

have suggested that impression management should include the way an individual establishes his or her own self-image (Greenwald & Breckler, 1985; Hogan, Jones, & Cheek, 1985; Schlenker, 1985).

### **The Multidimensionality of Impression Management**

Thus, impression management is a complex phenomenon that may encompass a wide variety of undertakings, depending upon the intentions of the person using the term. Leary, Allen, and Terry (2011) point out that impression management is a multidimensional term as evidenced by the various actions people take in different scenarios in an effort to manage their impressions. The notion of impression management as a multidimensional construct is further developed and simplified by Leary and Allen (2011) as they provide a clear example of how individuals, finding themselves in a given scenario, such as meeting new peers, are likely to be concerned about how they present themselves on a variety of levels from friendliness to dependability to attractiveness, rather than focusing on a single dimension.

Given that impression management has been well established as a multidimensional construct, it is very important to examine the way in which impression management plays out in everyday life. Not all multidimensional constructs are created equal; however, Law, Wong, and Mobley (1998) present strong points of reference for interpreting these constructs, proposing three different types of multidimensional constructs.

The first conceptualization that may be used to interpret a multidimensional construct is the aggregate model, which promotes the idea that multidimensional constructs represent the sum of their parts or some other function by which the underlying dimensions are combined algebraically to form the construct (Law et al., 1998). Although this would be a fairly simple way to interpret impression management, namely that all of the parts contribute in a set manner

to the total amount of the construct present, the reality is that impression management does not operate in this manner and is not a candidate for interpretation using the aggregate model (Bolino & Turnley, 2003). The second lens through which multidimensional constructs may be viewed is the latent model, which is applied to constructs that exist at a deeper level than the dimensions that comprise them such that the multidimensional construct is only present when all of the dimensions subsumed under it are present (Law et al., 1998). Although this model may be used to describe some multidimensional constructs, it falls short as a descriptor of impression management as nearly all of impression management occurs as the result of a few dimensions that are presented based on the situation rather than being manifest when all of its dimensions are present (Bolino & Turnley, 2003). The shortcomings of the latent model are addressed by the third and final model, the profile model. The profile model promotes the idea that the construct is present when various combinations of the dimensions subsumed under it are present (Law et al., 1998). This model is clearly the one that best applies to impression management, with impression management behavior being the result of various combinations of the dimensions subsumed under it such that impression management may appear completely different based on the person engaging in it as well as specific situational variables (Bolino & Turnley, 2003). For example, the child who cries in order to receive attention and the child who hides his tears in order to be viewed as tough are both managing impressions, but they are on opposite ends of the spectrum with respect to the types of impression management behaviors they are displaying.

### **Theoretical Models of Impression Management**

Beyond examining the basics of impression management, including its multidimensional nature, it is important to examine the ways in which impression management is conceptualized and empirically explored. Specifically, as impression management is well established as a

multidimensional construct, it is of the utmost importance to examine the dimensions that fall under the construct. As is frequently the case, several models have been proposed, with many finding their origins in theoretical frameworks (Bozeman & Kacmar, 1997; Jones & Pittman, 1982; Tedeschi & Melburg, 1984) and empirically-derived models (e.g., Wayne & Ferris, 1990). However, despite the plethora of options presented across two decades of research, the model presented by Jones and Pittman (1982) became the accepted model, and the five dimensions they presented (ingratiation, self-promotion, exemplification, supplication, and intimidation) have become the most researched impression management dimensions today (Bolino, Kacmar, Turnley, & Gilstrap, 2008; Bolino & Turnley, 1999; Nagy, Kacmar, & Harris, 2011). Although Jones and Pittman (1982) were among the first to realize the importance of conceptualizing the multidimensionality of impression management, the prominence of their model is the result of its later validation by Bolino and Turnley (1999), whose findings were further reinforced when the measure they developed was subsequently validated by Kacmar, Harris, and Nagy (2007).

### **Dimensions of Impression Management**

With the Jones and Pittman (1982) conceptualization of impression management firmly established, the next step is to examine the implications of the five dimensions (i.e., ingratiation, self-promotion, exemplification, supplication, and intimidation) with respect to the operation of impression management in everyday life. However, before individual dimensions are fleshed out a more basic distinction among the dimensions that comprise impression management must first be brought to light. At the most basic level, Nagy et al. (2011) highlight a clear divide present within the impression management strategies, pointing out the fact that individuals participate in ingratiation, self-promotion, and exemplification to create positive perceptions of themselves in the minds of others but use supplication and intimidation to promote negative perceptions of

themselves by others. In order to gain a greater appreciation for each of the impression management dimensions as they relate to the divide present within the types of impression management, it is important to examine each dimension in further detail.

Starting with the dimensions that people use to promote a positive perception of themselves by others, ingratiation is presented by Jones and Pittman (1982) as encompassing impression management behaviors that utilize flattery in an attempt to increase liking in a target individual. A simple example of ingratiation impression management could be people complimenting hosts about their homes when they are invited in to visit. Next, self-promotion is conceptualized as impression management that is focused on highlighting one's own accomplishments and/or abilities in an attempt to be viewed as more competent (Jones & Pittman, 1982). One example of self-promotion is when individuals ensure that their accomplishments are widely broadcasted to others (e.g., via social media). Finally, exemplification is presented as being impression management that occurs when individuals engage in behaviors in order to make themselves appear as model citizens would in their role (Jones & Pittman, 1982). An example of this could be people who work harder than everyone else only when other individuals are present, or who volunteer to help with tasks that others prefer not to do and that do not fall under the basic requirements of their position. As mentioned before, these three types of impression management comprise individuals' options when trying to present a positive perception of themselves to other people, and these behaviors are clearly an attempt to portray a positive image (Nagy et al., 2011).

Although creating a positive perception of oneself is typically the goal of impression management, the following two dimensions within impression management are carried out in order to create a negative perception (Nagy et al., 2011). The first type of negative impression

management is supplication, which is conceptualized as impression management that is undertaken by individuals in order to broadcast their real or imagined limitations to others in an attempt to appear needy (Jones & Pittman, 1982). An example of supplication is an individual who plays up a disability they may or may not actually have in order to receive a handicapped parking tag or to be awarded special treatment. The other negative form of impression management is intimidation, which is presented as being impression management behavior that is undertaken in order to cause others to attribute danger to interactions with the actor (Jones & Pittman, 1982). An example of this type of behavior would be an individual who, when confronted by other individuals about a certain behavior, overreacts by speaking harshly to them in an effort to make the other person leave them alone.

### **Influences on Impression Management**

The researchers who have promoted the literature reviewed so far have been instrumental in developing the concept of impression management, but there is far more information relevant to understanding impression management beyond the way in which it is conceptualized. It is of particular interest to examine factors that may influence the way in which impression management operates, such as dispositional and situational predictors of impression management, as called for in previous research (Kidd, 2004). An understanding of impression management processes is greatly enriched by identifying the situations and conditions that may set the stage for the emergence of these behaviors (Nicholson, 1990). Thankfully, an abundance of research has involved examining the factors that act to influence when and how people use impression management (Leary & Allen, 2011).

The research of Vorauer and Miller (1997) has helped to clarify some of these influences. They report that the identity of the person with whom an individual is interacting exerts a strong

influence on how the actor uses impression management behaviors and what types of impression management he or she displays. Furthermore, it is worth noting that the undergraduate students from Princeton and Manitoba who participated in this study did not consciously recognize the effects that the target of their interactions engendered on the methods they employed to manage their impressions, making a strong case that much of impression management occurs at a subconscious level (Vorauer & Miller, 1997). In addition, several additional studies have shown that people generally tend to reflect the mannerisms and traits of the individual with whom they are interacting (Cappella, 1981; Rosenfeld, 1967). At its most basic level, this type of ingratiation impression management may take the form of a person returning a smile (Rosenfeld, 1967). However, such forms of mirroring others may also include replicating a target's vocal intensity and pauses between statements when speaking with the person, as well as matching the target's gaze when communicating with the person nonverbally (Cappella, 1981).

Nearly any behavior presented by one individual could be reciprocated by another individual, but as mirroring is not likely to be undertaken for the same reasons each time, it is very important to examine the motivations underlying mirroring. First, Vorauer and Miller (1997) point out that people are usually motivated to behave in a manner consistent with others around them and, although there may be the select few who attempt to go against the crowd, even these individuals generally act within the norms of a smaller subgroup. Furthermore, the ways in which individuals attempt to portray themselves are often dependent on social and cultural norms (Pataki & Clark, 2004). In other words, impression management behavior is often directed at helping the individual to fit in, and the way many individuals present the impression that they belong is by mirroring surrounding individuals' behavior. Similarly, people's beliefs about how they are being perceived by the other people with whom they are interacting also

influence the behaviors they adopt (Martin & Leary, 1999). People's perceptions of how others are reacting to them may influence their impression management attempts, particularly if they do not like the way they believe they are being viewed. If individuals believe that they are not regarded in a constructive way by others they are more likely to broadcast themselves in a way that promotes a more favorable impression (e.g., by downplaying their competence in order to project a warmer personality or downplaying their friendliness in order to appear smarter; Holloien & Fiske, 2013).

### **The Role of Personal Motives**

Even when the expression and outcomes of impression management are identical, the motives behind it may be completely different. For example, an individual may downplay some traits and promote others in an effort to deceive other people by presenting a false image (Weiss & Feldman, 2006). Drawing on the examples involving competence and warmth, this type of impression management may take the form of individuals who lack competence downplaying their warmth in a job interview by dressing sharply and refraining from attempts at humor in order to make themselves appear to be more qualified for the position than they actually are. On the other hand, individuals may also manage their impressions when interacting with other people in order to present a more complete picture of themselves that others may not otherwise have the opportunity to experience (Murphy, 2007). With regard to warmth and competence, this form of impression management may manifest itself in the form of job applicants again downplaying their warmth in an interview by dressing sharply and refraining from humor, but this time in order to demonstrate their actual competence for the job. Thus, although these examples lead to the same outcome for very different reasons, it is not often that an individual is solely influenced by the desire to fake good or by a singular desire to present some hidden part of

themselves. Leary and Allen (2011) maintain that people are very complex and their actions thus stem from the combination of several immediate goals. In the example of a job interview, this means that individuals may present themselves in the manner that most increases the likelihood of a favorable outcome.

### **The Issue of Response Distortion**

Regardless of the situation, impression management is so pervasive in our daily lives that it influences the course and content of nearly all human interaction. Since impression management is so prevalent, it is important to evaluate its influence and gain a truer representation of an individual. Researchers have addressed impression management by including statements highlighting the consequences that face individuals who try to misrepresent themselves (Gatewood, Feild, & Barrick, 2011). Research in this domain has indicated that including such statements may reduce faking by nearly half (Schmitt & Kuncze, 2002; Schmitt, Oswald, Kim, Yoo, Gillespie, & Ramsay, 2003). Although some have included warnings to reduce impression management and outright faking, others have approached the issue from a different perspective by creating instruments that are designed to detect faking, such as the obvious and subtle items of the MMPI (Wiener, 1948). However, these scales are not perfect and they do not directly translate to interpersonal interactions. Furthermore, impression management is an active process whereby all people involved in an interaction may work simultaneously to manage their own image and to influence the thoughts and actions of others (King, 2004). In light of this fact, applied research on the detection of impression management can only combat impression management to a certain extent, and additional research focused on identifying the factors that influence the expression and direction of impression management is needed

(Baumeister, 1982; Leary, 1995; Leary & Kowalski, 1990). One factor that may have a large impact on the expression of impression management is cognitive complexity.

### **Cognitive Complexity**

Cognitive complexity has been the focus of considerable research since it was first conceptualized by Bieri (1955). This concept actually finds its roots in the personal construct theory proposed by Kelly (1955). Based on some of the foundational principles of personal construct theory, Bieri (1955) conceptualized cognitive complexity as the number and differentiation of the personal constructs that an individual holds. Simply stated, cognitive complexity is a measure that represents a person's ability to take in, efficiently utilize, and differentiate among multiple elements presented within his or her environment (Kelly, 1955; Labouvie-Vief & Diehl, 2000; Vannoy, 1965). Based on the aforementioned definition, the ability to perceive, analyze, and utilize data is indicative of a high level of cognitive complexity, whereas lower ability to carry out the various data processing tasks would be indicative of a lower level of cognitive complexity.

### **The History of Cognitive Complexity**

As was previously mentioned, the construct of cognitive complexity is based heavily on Kelly's (1955) personal construct theory that suggests that people seek to understand events in a scientific fashion in order to better predict or control future events. Based on this assertion, it was believed that in order for individuals to apply the information that they take in from the world around them, they create their own personal constructs that they then rely upon in order to interpret and act upon the stimuli they encounter (Kelly, 1955). Bieri (1955) asserted that certain individuals are able to incorporate more constructs into their judgments than others. As a consequence, these more cognitively complex individuals are able to maintain a more

differentiated system of internal constructs (Bieri, 1955). Subsequent research has not only confirmed the views proposed by Bieri (1955) but further broadened the concept of cognitive complexity by demonstrating that individuals high in cognitive complexity also use their greater system of differentiated internal constructs in order to arrive at solutions and actions that are based on more complex reasoning than individuals lower in cognitive complexity (Burlison & Caplan, 1998).

### **The Generalizability of Cognitive Complexity**

Of additional relevance to the construct of cognitive complexity are the findings of Bieri and Blacker (1956) that support the notion that an individual's cognitive complexity level may be generalized across situations. However, the implications of this finding are not as straightforward as they at first appear, as other research has shown that cognitive complexity is situation-specific (Scott, 1963). This apparent discrepancy is likely due to the fact that cognitive complexity is not immune to influences of other factors, such that experience or personality may influence the way an individual absorbs or applies information in various situations (Vannoy, 1965). In this way, an individual's level of cognitive complexity may be generalized across situations, but other situational factors may also influence the manner in which an individual collects and uses data within a given scenario (Vannoy, 1965). For example, assuming that level of cognitive complexity is held constant, an individual with significant years of experience working security watching tables in a casino is going to perceive far more information than an individual who is learning during his or her first day on the job. However, if two people with different levels of cognitive complexity are being trained, it would be expected that the individual with higher cognitive complexity would be able to perceive, differentiate, and apply a greater amount of information than his or her lower cognitive complexity counterpart.

## **The Role of Past Experience**

As other factors may affect the influence of cognitive complexity on the way a person collects and uses data in a given situation, it is beneficial to identify possible situational factors that may influence cognitive complexity. In this regard, Delia (1987) determined that individuals seek to develop schemes that differentiate among the relevant features present within a given situation. With regard to affecting the expression of cognitive complexity, this research showed that the individual is forced to differentiate among relevant features. Obviously, in order to determine the relevance of information, especially as information becomes more complex, an individual is required to possess some experience or knowledge base from which to make a decision.

Additional research suggests that experience plays a critical role in decision making. First, Lejarraga and Gonzalez (2011) contend that the decisions that people make based on their own experiences are different from those that people make based on second-hand knowledge. Furthermore, as task complexity increases, individuals are increasingly likely to model behavior based on experience rather than what they have been told (Lejarraga & Gonzalez, 2011). As might be expected, experience plays a significant role in the way that situations are interpreted and handled. Furthermore, Lejarraga (2010) suggests that those judgments that are made based on experience are more accurate than judgments made simply from second-hand information. This does not mean that decisions based on experience are more likely to be accurate, but rather that interpretation of the data at hand is more likely to align with the knowledge gained from past experience. Unfortunately, the preference to favor experience over descriptive information is so compelling that an individual will act on the basis of faulty experience even when more accurate and detailed information is available to them (Lejarraga, 2010). Taken together, these studies

clearly illustrate the influence that experience has on decision making processes. Moreover, Granello (2010) further underscores the impact that experience may have on cognitive complexity. For example, research on counselors indicates that cognitive complexity is positively correlated with experience in the field (Granello, 2010). In addition, in this particular study, cognitive complexity was unrelated to age, giving further credence to the idea that the application of cognitive complexity is strongly affected by experience.

Thus, extant research suggests that certain underlying factors affect the expression of cognitive complexity. Although underlying factors may affect cognitive complexity, the construct itself influences countless other factors. To put it another way, whereas impression management, discussed previously, is clearly pursued in order to influence the course of interactions, cognitive complexity influences the way people perceive and evaluate events (Lundy & Berkowitz, 1957; Mayo & Crockett, 1964). As cognitive complexity affects many of the actions and attributions of individuals, we can achieve a better understanding of this construct by exploring some of the factors it has been found to influence.

### **The Influence of Cognitive Complexity on Communication**

Cognitive complexity has been the subject of copious amounts of research investigating exactly how its influence could affect individual functioning (Vannoy, 1965); however, its influence on impression management efforts (e.g., interpersonal communications and interaction) has not been adequately explored. While there has been a fair amount of research in the area of communication, the most important theme that has emerged, as it pertains to cognitive complexity, is that the strategies and methods people use to communicate are related to their level of cognitive complexity (Burlison, 1987; O'Keefe & Delia, 1982). More specifically, Chen (1996) suggests that cognitive complexity affects the ways in which individuals communicate

due to the influence that cognitive complexity has on an individual's interpretation of a given situation, whereby people with high cognitive complexity may recognize and apply more information from their environment than people with lower cognitive complexity. In other words, people with higher cognitive complexity may perceive different information and apply information in a more comprehensive manner than those with low cognitive complexity, which is then manifested by their communication style. This first explanation concerning how cognitive complexity affects communication is fairly broad and lacks specificity; however, a study by O'Keefe and Shepherd (1987) showed that individuals who are high in cognitive complexity make use of far more complex and measured internal messages to regulate their behavior than individuals low in cognitive complexity. Furthermore, the internal messages of cognitively complex individuals are well differentiated and lead to more strongly developed arguments, when they are attempting to persuade others, than those formulated by individuals lower in cognitive complexity (O'Keefe & Shepherd, 1987). In addition, cognitively complex individuals are more likely to integrate and incorporate several goals into a single message that furthers the impact of the message they are presenting (O'Keefe & Shepherd, 1989).

### **Goal Integration and Communication Effectiveness**

However, the ability of highly cognitively complex individuals to integrate multiple goals into a singular pursuit is not limited to personal goals. As Leighty and Applegate (1991) point out, when interacting with others, individuals displaying high levels of cognitive complexity are also more likely to integrate the goals of multiple parties when they present an argument on behalf of a group. Furthermore, the messages developed by cognitively complex individuals that incorporate the desires of the group members are stronger and better developed than group messages formed by people with lower cognitive complexity (Burlison & Samter, 1990).

Finally, O'Keefe and Shepherd (1989) conclude that not only are cognitively complex individuals significantly better at incorporating their personal goals into a single message, but they are also adept at incorporating others' goals into a single unified message that is agreeable to all parties.

Burleson (1994) proposes that the integration of individual and group goals by cognitively complex individuals may be possible because individuals who are high in cognitive complexity are able to interpret the state an individual is in at the present moment as well as how the person is predisposed to behave. Basically, cognitively complex individuals are attuned to a greater amount and higher quality of interpersonal information than individuals with low cognitive complexity. Furthermore, once a judgment has been made concerning a target individual's current state and disposition, cognitively complex individuals may then utilize the information to better organize the opinions expressed by the target in light of the judgment that has already been formed (O'Keefe, 1984).

In light of the research examining the impact of cognitive complexity on the ways in which individuals communicate, such as by incorporating multiple goals, it is relevant to examine the impact that cognitively complex communication has on others. By focusing on the ways cognitively complex individuals engage in communication relative to individuals lower in cognitive complexity, a clear divide emerges (Burleson, 1987; Burleson & Samter, 1985). On the one hand, individuals high in cognitive complexity are more likely to engage in communication with others that is person-centered and focused on the uniqueness of the individual with whom they are interacting and are less likely to engage in position-centered communication, which emphasizes the role of the other individual (Burleson, 1987; Burleson & Samter, 1985). Due to use of person-centered communication, cognitively complex individuals are able to build

relationships with others and accomplish their goals simultaneously (O'Keefe & McCornack, 1987). Furthermore, as it pertains to interacting with others, cognitively complex individuals are also better able to adapt their communication style in order to effectively convey their message in many different situations than individuals who are lower in cognitive complexity (Applegate, Burk, Delia, & Kline, 1985; Shepherd & Trank, 1989). Chen (1996) notes that sufficient evidence suggests that people high in cognitive complexity are able to adapt their messages better than those who are low in cognitive complexity. Being able to modify one's messages, as well as present more comprehensive arguments, could prove very important to an individual trying to manage his or her impressions.

### **The Relationship between Cognitive Complexity and Impression Management**

Impression management and cognitive complexity appear to be pivotal factors that influence every interpersonal interaction. Although several connections have been made between cognitive complexity and various behaviors that may facilitate impression management (e.g., communication style, communication strength, and the incorporation of others' thoughts into a unified message), the relationship between cognitive complexity and impression management has not been specifically examined (Burlison, 1987; O'Keefe & Delia, 1982; O'Keefe & Shepherd, 1989). Subsequently, this study seeks to investigate this relationship.

It is expected that individuals who are higher in cognitive complexity will engage in impression management to a greater extent than individuals lower in cognitive complexity due to their enhanced ability to perceive and consolidate a greater amount of information than their counterparts (Kelly, 1955; Labouvie-Vief & Diehl, 2000; O'Keefe & McCornack 1987; O'Keefe & Shepherd, 1989; Vannoy, 1965). It is expected that all participants will engage in certain amount of socially desirable responding due to participants' natural inclination to present

themselves favorably, and that this tendency will be especially pronounced for highly cognitively complex individuals. This tendency to manage impressions in a positive manner when self-reporting was expected to be clearly highlighted by subjects' responses to two different measures, the work ethic profile and the counterproductive student behavior scale. These measures have been specifically selected in order to provide optimal opportunity for subjects to present themselves in a positive light. Subsequently,

*Hypothesis 1:* Higher levels of cognitive complexity (as indicated by lower scores on the computer-administered rep test) will be associated with increased instances of impression management as evidenced by higher scores on the work ethic profile.

*Hypothesis 2:* Higher levels of cognitive complexity (as indicated by lower scores on the computer-administered rep test) will be associated with increased instances of impression management as evidenced by lower scores on the counterproductive student behavior scale.

*Hypothesis 3:* Higher levels of cognitive complexity (as indicated by lower scores on the computer-administered rep test) will be associated with higher levels of social desirability as evidenced by higher scores on the social desirability scale.

In addition, impression management behavior is proposed to be markedly higher in the experimental group who will be encouraged to provide favorable responses than in the control group who will be instructed to respond truthfully to the personality questions. This scenario is likely because level of cognitive complexity alone influences an individual's *ability* to impression manage and does not directly highlight the likelihood of the individual engaging in impression management. Thus,

*Hypothesis 4:* Scores on the social desirability scale will be higher in the experimental group than the control group.

*Hypothesis 5:* Scores on the counterproductive student behavior scale will be lower in the experimental group than the control group.

*Hypothesis 6:* Scores on the work ethic profile will be higher in the experimental group than the control group.

Furthermore, as impression management behavior is expected to be markedly higher in the experimental group than the control group, the relationship between cognitive complexity and impression management (as indicated by scores on the CSBS and MWEP) is expected to be strengthened as well. This outcome is likely due to cognitive complexity's role as a facilitator of impression management. Within the experimental group, cognitively complex individuals are expected to outpace their less cognitively complex counterparts with respect to the use of impression management. Thus,

*Hypothesis 7:* The magnitude of the relationship between cognitive complexity and counterproductive student behavior scale scores will be greater in the experimental group than in the control group.

*Hypothesis 8:* The magnitude of the relationship between cognitive complexity and work ethic profile scale scores will be greater in the experimental group than in the control group.

Lastly, in light of the fact that cognitive complexity should only directly affect an individual's ability to impression manage and not the person's willingness to impression manage, it is proposed that the relationship between cognitive complexity and impression management will be

moderated by social desirability, as scores on the social desirability scale indicate an individual's actual propensity to cast themselves in a socially desirable manner. Thus,

*Hypothesis 9:* Social desirability will moderate the relationship between cognitive complexity and impression management such that the relationship between cognitive complexity and counterproductive student behavior scale scores will be stronger in magnitude at higher levels of social desirability and weaker in magnitude at lower levels of social desirability.

*Hypothesis 10:* Social desirability will moderate the relationship between cognitive complexity and impression management such that the relationship between cognitive complexity and work ethic profile scale scores will be stronger in magnitude at higher levels of social desirability and weaker in magnitude at lower levels of social desirability.

## CHAPTER II: METHOD

### Participants

Data were collected upon obtaining approval from the Institutional Review Board (see Appendix A). Participants consisted of 945 undergraduate psychology students at a large southeastern university. The sample was 68% female with 73% identifying as White, 17% identifying as Black, 4% identifying as Asian, and 6% identifying as some other race. Participants received research participation credit in exchange for completion of the study.

### Procedure

Participants were randomly assigned to either the control group ( $N = 586$ ) or the experimental group ( $N = 359$ ). All participants first completed a measure of cognitive complexity. Participants in the control group then completed a social desirability measure, a work ethic measure, and a counterproductive student behavior measure using traditional instructions in order to provide avenues for natural self-promotion. In contrast, participants in the experimental group completed the social desirability, work ethic, and counterproductive student behavior measures using an alternate set of instructions that encouraged them to provide socially desirable responses and thus increase the likelihood of impression management (i.e., they were asked to complete the measure as if they were applying for a job that they really wanted).

### Measures

**Cognitive complexity.** Cognitive complexity was measured using the Computer-administered Rep Test (CART), a version of the Construct Repertory Test (Rep Test) that was adapted for computer administration (Woehr, Miller, & Lane, 1998). Although the CART has been adapted for computer administration, the components of the Rep Test have not changed significantly since it was first presented by Bieri, Atkins, Briar, Leaman, Miller, and Tripodi

(1966). The Rep Test instructs respondents to identify ten people corresponding to ten specific roles (i.e., yourself, a person you dislike, your mother, a person you would like to help, your father, a friend of the same sex, a friend of the opposite sex, the person with whom you feel the most uncomfortable, a person in a position of authority, and a person who is difficult to understand). Respondents then rate these individuals based on 10 sets of adjectives set at opposite ends of a 6-point scale. The adjective pairs are as follows: outgoing to shy, maladjusted to adjusted, decisive to indecisive, excitable to calm, interested in others to self-absorbed, ill-humored to cheerful, irresponsible to responsible, considerate to inconsiderate, dependent to independent, and interesting to dull. Once the data are collected the responses are scored in the manner prescribed by Johnson (1994) such that scores may range from 230 to 900 with cognitive complexity increasing as the score decreases (e.g., a score of 230 would indicate a high level of cognitive complexity whereas a score of 900 would indicate a low level of cognitive complexity).

**Social Desirability Scale.** The Social Desirability Scale-17 (SDS-17; Stöber, 2001) was used to assess social desirability. This measure consists of 17 items that reflect the propensity to respond in a manner that reflects favorably on oneself (e.g., “I never hesitate to help someone in case of emergency”; “When I have made a promise, I keep it – no ifs, ands or buts”). Participants were asked to read each statement carefully and indicate whether each statement describes them by providing a true or false response.

**Multidimensional Work Ethic Profile (Short Form).** The short form of the Multidimensional Work Ethic Profile (MWEP-SF; Meriac, Woehr, Gorman, & Thomas, 2013) was used to assess work ethic. This measure includes 28 items that reflect the propensity to value one’s efforts and to honor commitments (e.g., “A hard day’s work is very fulfilling”; “If you

work hard you will succeed”). Participants were asked to indicate the extent to which they agree that each statement describes them on a 5-point rating scale ranging from “1 = Strongly Disagree” to “5 = Strongly Agree.”

**Counterproductive Student Behavior Scale.** The Counterproductive Student Behavior Scale (CSBS; Rimkus, 2012) is comprised of 58 questions that assess the propensity to engage in a range of counterproductive student behaviors. For the purposes of this study, 24 items from the following five subscales of the CSBS were used: cheating/plagiarism (11 items), deviant behavior (3 items), alcohol use (1 item), laziness (2 items), and procrastination (7 items). Participants were asked to rate the frequency with which each of the behaviors occurs using a 9-point rating scale ranging from “1 = Never” to “9 = Every day.”

### **Analyses**

After screening the data for missing values and employing list-wise deletion, the final sample consisted of 566 participants in the control group and 343 participants in the experimental group. Correlational analyses were used to determine whether impression management increased with higher levels of cognitive complexity. As a manipulation check, a *t*-test was used to determine whether social desirability scores were higher in the experimental group. A Potthoff analysis was then conducted to determine whether the relationship between cognitive complexity and impression management (as measured by scores on the work ethic and counterproductive student behavior scales) differed significantly between the control and experimental groups. Multiple regression was then used to determine whether social desirability moderates the relationship between cognitive complexity and impression management.

### CHAPTER III: RESULTS

Correlational analyses were used to test Hypotheses 1, 2, and 3 (i.e., that higher levels of cognitive complexity as demonstrated by lower scores on the CART are associated with increased instances of impression management as evidenced by higher scores on the work ethic profile and lower scores on the counterproductive student behavior scale as well as higher levels of social desirability as evidenced by higher scores on the social desirability scale). As shown in Table 1, cognitive complexity scores in the control group were related to impression management as evidenced by reported counterproductive student behaviors ( $N = 566$ ,  $r = .162$ ,  $p < .001$ , 95% CI [.081, .241]). Moreover, correlational analyses on the relationship between cognitive complexity and multidimensional work ethic profile scores yielded a significant Pearson correlation as well ( $N = 566$ ,  $r = -.381$ ,  $p < .001$ , 95% CI [-.449, -.308]). These results support Hypotheses 1 and 2. In the control group, as cognitive complexity increased, reported counterproductive student behaviors decreased and reported work ethic increased, thus indicating greater impression management efforts. However, Hypothesis 3 was not supported for the control group as correlational analysis showed no statistically significant relationship between cognitive complexity and social desirability ( $N = 566$ ,  $r = .036$ ,  $p = .393$ , 95% CI [-.047, .118]).

Table 1

*Correlations for the Relationships between the CART, CSBS, MWEP, and SDS-17 in the Control Group*

	CART	CSBS	MWEP	SDS-17
CART	1.000			
CSBS	.162*	1.000		
MWEP	-.381*	-.233*	1.000	
SDS-17	.036	-.216*	.211*	1.000

*Note.* \*  $p \leq .001$ .  $N = 566$  for all analyses.

The correlation between cognitive complexity and impression management was also examined in the experimental group. As shown in Table 2, cognitive complexity was positively correlated with impression management with respect to CSBS scores as indicated by a Pearson correlation ( $N = 343$ ,  $r = .233$ ,  $p < .001$ , 95% CI [.131, .331]). In addition, a Pearson correlational analysis attained significance when examining the relationship between cognitive complexity and MWEP scores ( $N = 343$ ,  $r = -.259$ ,  $p < .001$ , 95% CI [-.355, -.157]). These results indicate that cognitive complexity was again correlated with impression management as demonstrated by CSBS scores and MWEP scores, offering support for Hypotheses 1 and 2. However, correlational analysis did not uncover a significant relationship between cognitive complexity and social desirability for the experimental group ( $N = 343$ ,  $r = -.003$ ,  $p = .953$ , 95% CI [-.109, .103]) indicating that, contrary to expectations, cognitive complexity and social desirability scores were not related in this study in the control or experimental groups. Consequently, Hypothesis 3 was not supported.

Table 2

*Correlations for the Relationships between the CART, CSBS, MWEP, and SDS-17 in the Experimental Group*

	CART	CSBS	MWEP	SDS-17
CART	1.000			
CSBS	.233*	1.000		
MWEP	-.259*	-.217*	1.000	
SDS-17	-.003	-.270*	.242*	1.000

*Note.* \*  $p \leq .001$ .  $N = 343$  for all analyses.

Correlational findings for the full sample, ignoring group placement, were consistent with the findings for each of the two groups. These results are displayed in Table 3 for enrichment.

Table 3

*Correlations for the Relationships between the CART, CSBS, MWEP, and SDS-17 in the Full Sample*

	CART	CSBS	MWEP	SDS-17
CART	1.000			
CSBS	.177*	1.000		
MWEP	-.344*	-.226*	1.000	
SDS-17	.020	-.236*	.244*	1.000

*Note.* \*  $p \leq .001$ .  $N = 909$  for all analyses.

A series of  $t$ -tests were then conducted in order to determine whether the manipulation of the experimental group was effective. These analyses were designed to examine group differences that would be expected between the control and experimental groups on the SDS-17, the CSBS, and the MWEP if the experimental manipulation functioned as intended. First, a Folded  $F$  test was used to determine whether the groups exhibited equality of variance with regard to SDS-17 scores. Results of this analysis indicated that variances differed little between groups,  $F(342, 565) = 1.14, p = .174$ . Accordingly, a pooled equal variances  $t$ -test was employed to test the effect of group on the level of social desirability displayed by participants. Results indicated that SDS-17 scores obtained in the control group and the experimental group were not significantly different,  $t(907) = -.98, p = .327, d = -.067, 95\% \text{ CI } [-.201, .067]$ . Descriptive statistics are shown in Table 4. These findings suggest that the manipulation did not have a significant effect on social desirability scores between groups. Thus, Hypothesis 4 was not supported.

Table 4

*Mean SDS Scores in the Experimental and Control Groups*

Group	Mean	<i>SD</i>
Experimental	8.56	3.23
Control	8.35	3.03

Next, a Folded *F* test was used to determine whether the two groups displayed equality of variance with regard to CSBS scores. Results of this analysis indicated that the variances differed little between groups,  $F(565, 342) = 1.09, p = .387$ . Results of a pooled-equal variances *t*-test indicated that CSBS scores in the control group and the experimental group were not significantly different,  $t(907) = -.21, p = .830, d = -.014, 95\% \text{ CI } [-.148, .120]$ . Descriptive statistics are shown in Table 5. These findings indicate that the manipulation did not have an influence on reported counterproductive student behaviors between groups. In light of this, Hypothesis 5 was not supported by the findings of this study.

Table 5

*Mean CSBS Scores in the Experimental and Control Groups*

Group	Mean	<i>SD</i>
Experimental	46.87	20.14
Control	46.56	21.02

A final Folded *F* test was used to determine whether the groups had equality of variance with regard to MWEP scores. Results of this analysis indicated that the variances differed little between groups,  $F(342, 565) = 1.00, p = .968$ . In addition, results of a pooled-equal variances

*t*-test indicated that MWEP scores in the control group and the experimental group were not significantly different,  $t(907) = -1.95$ ,  $p = .052$ ,  $d = -.133$ , 95% CI [-.268, .001]. These findings indicate that the experimental manipulation fell just short of statistical significance with regard to participants' MWEP scores. Descriptive statistics are shown in Table 6. These results fail to support Hypothesis 6 (i.e., that predicted group differences would be present as a result of the experimental manipulation). Taken together, the results of the three *t*-tests failed to offer support for the experimental manipulation, as scores on the SDS-17, CSBS, and MWEP did not differ significantly between the experimental and control groups.

Table 6

*Mean MWEP Scores in the Experimental and Control Groups*

Group	Mean	SD
Experimental	27.52	3.63
Control	27.04	3.62

Potthoff analyses were then conducted as a further means of checking the experimental manipulation and in order to determine whether the relationship between cognitive complexity and impression management (as indicated by scores on the CSBS and MWEP) differed significantly between the control and experimental groups. CSBS scores were the first marker of impression management examined. Potthoff's common *b*-coefficient test was employed to test the null hypothesis of parallelism within the data. Results indicated that the slopes differed,  $F(1, 905) = 4.060$ ,  $p = .044$ . Next, a test of equal intercepts was conducted in order to test the null hypothesis that the intercepts of the regression lines were equivalent. Results indicated that the intercepts of the regression lines did not differ significantly,  $F(1, 905) = 3.129$ ,  $p = .077$ .

Although intercepts were not found to differ significantly, the finding that slopes differed

between groups indicated that further analyses were required in order to determine the nature of the difference. Accordingly, within-groups analyses of the control and experimental groups were conducted in order to determine the regression lines for predicting CSBS scale score impression management ( $i$ ) from cognitive complexity ( $c$ ). First, the within-groups analysis of the control group yielded the following regression line  $i = .031c + 35.882$ . Next, within-groups analysis of the experimental group indicated the following regression line for the relationship between cognitive complexity and CSBS scale scores in the experimental group  $i = .066c + 25.569$ . These regression lines for the relationships between cognitive complexity and reported CSBS within the groups, when considered in the context of Potthoff's common  $b$ -coefficient test which indicated that the slopes differed, indicate that level of cognitive complexity had a significantly greater impact on CSBS score impression management in the experimental group than in the control group. These results support Hypothesis 7.

The relationship between cognitive complexity and MWEP scores as the measure of impression management was then examined. Potthoff's common  $b$ -coefficient test was employed to test the null hypothesis of parallelism within the data with the results causing the null hypothesis to fail to be rejected,  $F(1, 905) = .042, p = .838$ . Furthermore, a test of equal intercepts was employed in order to test the null hypothesis that the intercepts of the regression lines were the same with the results again causing the null hypothesis to fail to be rejected,  $F(1, 905) = .181, p = .671$ . These results fail to support Hypothesis 8 which predicted that the magnitude of the relationship between cognitive complexity and work ethic profile scale scores would be greater in the experimental group than in the control group, and further indicate that the experimental manipulation failed to have the desired effect.

The final step in testing the hypotheses was to use multiple regression to determine whether social desirability moderated the established relationship between cognitive complexity and impression management. First, the predictors representing cognitive complexity and social desirability were standardized to  $M = 0$ ,  $SD = 1$  and the interaction term was created. Next, multiple regression was undertaken including the variables for cognitive complexity, social desirability, and the interaction between the two as predictors of impression management and CSBS score as the manifestation of impression management. This action was specifically taken to test Hypothesis 9 which predicted that social desirability would moderate the relationship between cognitive complexity and impression management such that the relationship between cognitive complexity and impression management would be stronger when social desirability was high than when low. The results revealed significant zero-order correlations between CSBS scores and cognitive complexity ( $r = .177, p < .001$ ) as well as social desirability ( $r = -.236, p < .001$ ). Only cognitive complexity ( $\beta = .188, p < .001$ ) and social desirability ( $\beta = -.241, p < .001$ ) had significant partial effects in the full model with the interaction between cognitive complexity and impression management falling short of statistical significance ( $\beta = -.022, p = .500$ ).

Although the three-predictor model accounted for 9% of the variance in CSBS scores,  $F(3, 905) = 27.011, p < .001, R^2 = .089$ , the absence of a significant interaction indicated that social desirability did not moderate the relationship between cognitive complexity and impression management. In light of the interaction falling short of statistical significance the two-predictor main effects model was examined excluding the interaction of cognitive complexity and social desirability. Within the main effects model both cognitive complexity ( $\beta = .182, p < .001$ ) and social desirability ( $\beta = -.240, p < .001$ ) had significant partial effects. Furthermore, the two-predictor model was able to account for 9% of the variance in CSBS scores,  $F(2, 906) = 40.307,$

$p < .001$ ,  $R^2 = .088$ , just as with the three-predictor model. This provided further evidence that social desirability did not moderate the relationship between cognitive complexity and impression management in the form of reported CSBS scores. Thus, these results failed to support Hypothesis 9.

The next step was to test cognitive complexity, social desirability, and the interaction between the two as predictors of impression management as indicated by MWEF scores. This action was specifically taken to test Hypothesis 10 which predicted that social desirability would moderate the relationship between cognitive complexity and impression management such that that relationship would be stronger for those high in social desirability. Results indicated that MWEF score impression management was correlated with cognitive complexity ( $r = -.344$ ,  $p < .001$ ) and social desirability ( $r = .244$ ,  $p < .001$ ). Only cognitive complexity ( $\beta = -.353$ ,  $p < .001$ ) and social desirability ( $\beta = .232$ ,  $p < .001$ ) had significant partial effects in the full model with the interaction between cognitive complexity and impression management falling short of statistical significance ( $\beta = .014$ ,  $p = .646$ ). Although the three-predictor model accounted for 17% of the variance in MWEF scores,  $F(3, 905) = 52.094$ ,  $p < .001$ ,  $R^2 = .172$ , the absence of a significant interaction indicated that social desirability did not moderate the relationship between cognitive complexity and impression management. Again, due to the interaction falling short of statistical significance when examining the three-predictor model, a two- predictor main effects model was examined excluding the interaction of cognitive complexity and social desirability. Within the main effects model both cognitive complexity ( $\beta = -.349$ ,  $p < .001$ ) and social desirability ( $\beta = .231$ ,  $p < .001$ ) had significant partial effects. In addition, the two- predictor model was able to account for 17% of the variance in CSBS scores,  $F(2, 906) = 78.053$ ,  $p < .001$ ,  $R^2 = .172$ , which was on par with the three-predictor model. This result further indicated that

social desirability did not moderate the relationship between cognitive complexity and impression management in the form of MWEP scores in this study. Thus, these results failed to support Hypothesis 10.

## CHAPTER IV: DISCUSSION

The findings of the present study contribute to our understanding of cognitive complexity and the way in which it relates to impression management. The results of this study provide support for a positive association between cognitive complexity and impression management such that as individual levels of cognitive complexity increase, impression management efforts increase as well. The fact that this relationship held true in both the control and experimental groups further emphasizes the strength of this relationship.

Furthermore, knowledge about the nature of cognitive complexity was further increased by the conclusion that social desirability did not moderate the relationship between cognitive complexity and impression management as indicated by either CSBS or MWEP scores. Although moderation by social desirability makes intuitive sense, the results failed to support this relationship. The findings instead indicated that cognitive complexity was significantly correlated with impression management and social desirability was significantly correlated with impression management, but they did not interact with each other in any significant way as it pertains to impression management. These results coupled with the conclusion that social desirability was not significantly correlated with cognitive complexity are mystifying in that they run counter to the relationships hypothesized. It is possible that social desirability moderates the relationship between cognitive complexity and impression management, but that the CSBS and MWEP did not sufficiently capture this construct. In light of this, the relationship between social desirability, cognitive complexity, and impression management should be explored via other avenues in order to clarify the obviously complex nature of their relationship. Even if a relationship between cognitive complexity and social desirability cannot be confirmed with respect to impression management behavior, it appears that the inclusion of cognitive complexity

provides incremental validity over the use of social desirability scores alone when predicting impression management.

### **Limitations and Directions for Future Research**

Although the results of this study contributed to the body of knowledge about cognitive complexity and its relationship to impression management and social desirability, several limitations need to be acknowledged. First, the sample was largely composed of Caucasian females. Although this distribution accurately represented the population from which the participants were drawn, a more diverse sample should be used for future research in order to extend the generalizability of the findings. Second, although the results of this study revealed a correlational relationship between cognitive complexity and impression management across both normal and experimentally manipulated scenarios, the findings are limited by the fact that all of the data were collected at a single point in time. It would be beneficial to examine the relationship between cognitive complexity and impression management longitudinally in order to verify that cognitive complexity impacts impression management and not the other way around.

A third major limitation of this research is that the experimental manipulation did not have the desired effect on the study participants. The shortcoming of this manipulation limits the conclusions that can be drawn with respect to the control and experimental groups and highlights the fact that the sample consisted of college students with the majority being under the age of 20. The featured manipulation (in which participants were asked to present themselves as if they were applying to a job they really wanted) may not have resonated as clearly with younger participants as it would with an adult population. In addition, all of the data were collected online; so it is possible that participants did not attend to all of the information presented to them. Thus, it seems likely that this manipulation may function more optimally in a face-to-face rather

than an online administration format. Although the experimental manipulation fell short of its intended purpose, the results that were obtained are nonetheless still informative given that impression management occurs to a certain extent in any situation.

In addition, the pattern of responses to the CSBS was an unexpected finding in this study, and once again, these results may reflect the fact that many of the participants had never applied to jobs. Given that the manipulation asked participants to present themselves as if they were applying for a job that they really wanted, it is possible that participants were not aware of the expectations of job applicants. Furthermore, participants may have perceived that certain responses would be acceptable in a workplace setting due to their lack of vocational experience. Regardless, the inconsistent pattern of responses to the attempted manipulation represents a shortcoming of this study, and future work in this area should feature additional manipulations, especially if student samples are used.

Finally, the fact that the results failed to support hypotheses formulated based upon past research in similar domains suggests that some of the criterion measures may not have performed optimally. It must be stressed that this is preliminary research into the relationship between cognitive complexity and impression management and as such, it is little surprise that the results generate as many questions as they do answers. Among the most interesting questions to come out of the research is the possibility that higher MWEP scores and lower CSBS scores being correlated with higher cognitive complexity may not be a result of impression management at all but rather due to cognitively complex individuals actually being different in these domains than their less cognitively complex counterparts. This conclusion would make sense in light of the findings that social desirability does not moderate the relationship between cognitive complexity and CSBS or MWEP as instruments of impression management, but far more research is needed

in order to support such an assertion. Accordingly, future research should focus on the use of additional (preferably real-world) criterion measures in order to further examine the relationship between cognitive complexity, impression management, and social desirability in order to fill out the body of knowledge on the subjects to a point where many of the preliminary questions generated by breaking ground can be answered.

## **Conclusion**

This study augments our understanding of cognitive complexity by establishing a correlation between cognitive complexity and impression management such that impression management efforts are associated with increasing levels of cognitive complexity. Furthermore, the lack of a correlation between cognitive complexity and social desirability offers insight into this complex construct. However, the manner in which these relationships are affected by situational variables requires further clarification. Furthermore, social desirability did not moderate the relationship between cognitive complexity and impression management as manifest by CSBS scores of MWEP scores. Nonetheless, the results of this study suggest that cognitive complexity may add incremental validity to the prediction of individual impression management efforts.

## References

- Applegate, J. L., Burk, J. A., Burleson, B. R., Delia, J. G., & Kline, S. (1985). Reflection-enhancing parental communication. In I. E. Siegel (Ed), *Parental belief systems: The psychological consequences for children* (pp. 245-282). Hillsdale, NJ: Lawrence Erlbaum.
- Baumeister, R. F. (1982). A self-presentational view of social phenomena. *Psychological Bulletin*, *91*, 3–26. doi:10.1037/0033-2909.91.1.3
- Bieri, J. (1955). Cognitive complexity-simplicity and predictive behavior. *Journal of Abnormal and Social Psychology*, *51*, 263-268.
- Bieri, J., Atkins, A. L., Briar, S., Leaman, R. L., Miller, H., & Tripodi, T. (1966). *Clinical and social judgment*. New York, NY: Wiley.
- Bieri, J., & Blacker, E. (1956). The generality of cognitive complexity in the perception of people and inkblots. *Journal of Abnormal and Social Psychology*, *53*, 112-117.
- Bolino, M. C., Kacmar, K. M., Turnley, W. H., & Gilstrap, J. B. (2008). A multi-level review of management motives and behaviors. *Journal of Management*, *34*, 1080-1109.
- Bolino, M. C., & Turnley, W. H. (1999). Measuring impression management in organizations: A scale development based on the Jones and Pittman taxonomy. *Organizational Research Methods*, *2*, 187-206.
- Bolino, M. C., & Turnley, W. H. (2003). More than one way to make an impression: Exploring profiles of impression management. *Journal of Management*, *29*, 141-160.  
doi:10.1177/014920630302900202

- Bozeman, D. P., & Kacmar, K. M. (1997). A cybernetic model of impression management processes in organizations. *Organizational Behavior and Human Decision Processes*, 69, 9-30.
- Burleson, B. R. (1987). Cognitive complexity. In J. C. McCroskey & J. A. Daly (Eds.), *Personality and interpersonal communication* (pp. 305-350). Beverly Hills, CA: Sage.
- Burleson, B. R. (1994). Friendship and similarities in social-cognitive and communication abilities: Social skill bases of interpersonal attraction in childhood. *Personal Relationships*, 1, 371-389.
- Burleson, B. R., & Caplan, S. E. (1998). Cognitive complexity. In J. C. McCroskey, J.A. Daly, & M.M. Martin (Eds.), *Communication and personality: Trait perspectives* (pp. 233–286). Cresskill, NJ: Hampton Press.
- Burleson, B. R., & Samter, W. (1985). Consistencies in theoretical and naïve evaluations of comforting messages: Two empirical studies. *Communication Monographs*, 52, 103-123.
- Burleson, B. R., & Samter, W. (1990). Effect of cognitive complexity on the perceived importance of communication skills of friends. *Communication Research*, 17, 165-182.
- Cappella, J. N. (1981). Mutual influence in expressive behavior: Adult-adult and infant-adult dyadic interaction. *Psychological Bulletin*, 89, 101-132.
- Chen, L. (1996). Cognitive complexity, situational influences, and topic selection in intracultural and intercultural dyadic interactions. *Communication Reports*, 9, 1-12.  
doi:10.1080/08934219609367630
- Delia, J. G. (1987). Twentieth century communication research: An historical perspective. In C. E. Berger & S. H. Chaffee (Eds.), *Handbook of communication science*. Newbury Park, CA: Sage.

- Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences, 11*, 77–83.  
doi:10.1016/j.jesp.2012.09.001
- Gatewood, R. D., Feild, H. S., & Barrick, M. (2011). *Human resource selection (7th ed.)*. Mason, OH: South-Western.
- Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Doubleday.
- Granello, D. (2010). Cognitive complexity among practicing counselors: How thinking changes with experience. *Journal of Counseling & Development, 88*, 92-100.
- Greenwald, A. G., & Breckler, S. J. (1985). To whom is the self presented? In B. R. Schlenker (Ed.), *The self and social life* (pp. 126- 145). New York, NY: McGraw-Hill.
- Hogan, R., Jones, W. H., & Cheek, J. M. (1985). Socioanalytic theory: An alternative to armadillo psychology. In B. R. Schlenker (Ed.), *The self and social life* (pp. 175-198). New York, NY: McGraw-Hill.
- Holoien, D., & Fiske, S. T. (2013). Downplaying positive impressions: Compensation between warmth and competence in impression management. *Journal of Experimental Social Psychology, 49*, 33-41. doi:10.1016/j.jesp.2012.09.001
- Johnson, J. W. (1994, April). *The effect of rater cognitive complexity on performance rating effectiveness*. Paper presented at the 9<sup>th</sup> annual meeting of the Society for Industrial and Organizational Psychology, Nashville, TN.
- Jones, E. E., & Pittman, T. S. 1982. Toward a general theory of strategic self-presentation. In J. Suls (Ed.), *Psychological perspectives on the self* (pp. 231–262). Hillsdale, NJ: Lawrence Erlbaum.

- Kacmar, K. M., Harris, K. J., & Nagy, B. G. (2007). Further validation of the Bolino and Turnley impression management scale. *Journal of Applied Behavioral Management, 9*, 16-32.
- Kelly, G. (1955). *The psychology of personal constructs*. New York, NY: Norton.
- Kidd, J. M. (2004). Emotion in career contexts: Challenges for theory and research. *Journal of Vocational Behavior, 64*, 441-454.
- King, Z. (2004). Career self-management: Its nature, causes and consequences. *Journal of Vocational Behavior, 65*, 112-133.
- Labouvie-Vief, G., & Diehl, M. (2000). Cognitive complexity and cognitive affective integration: Related or separate domains of adult development? *Psychology and Aging, 15*, 490-504.
- Law, K. S., Wong, C., & Mobley, W. H. (1998). Toward a taxonomy of multidimensional constructs. *Academy of Management Review, 23*, 741-755.
- Leary, M. R. (1995). *Self-presentation: Impression management and interpersonal behavior*. Boulder, CO: Westview Press.
- Leary, M. R., & Allen, A. (2011). Self-presentational persona: Simultaneous management of multiple impressions. *Journal of Personality and Social Psychology, 101*, 1033-1049.
- Leary, M. R., Allen, A., & Terry, M. L. (2011). Managing social images in naturalistic versus laboratory settings: Implications for understanding and studying self-presentation. *European Journal of Social Psychology, 41*, 411-421. doi:10.1002/ejsp.813
- Leary, M. R., & Kowalski, R. M. (1990). Impression management: A literature review and two-component model. *Psychological Bulletin, 107*, 34-47. doi:10.1037/0033-2909.107.1.34
- Leighy, G., & Applegate, J. L. (1991). Social-cognitive and situational influences on the use of face-saving persuasive strategies. *Human Communication Research, 17*, 451-484.

- Lejarraga, T. (2010). When experience is better than description: Time delays and complexity. *Journal of Behavioral Decision Making, 23*, 100-116.
- Lejarraga, T., & Gonzalez, C. (2011). Effects of feedback and complexity on repeated decisions from description. *Organizational Behavior and Human Decision Processes, 116*, 286-295.
- Lundy, R. M., & Berkowitz, L. (1957). Cognitive complexity and assimilative projection in attitude change. *Journal of Abnormal and Social Psychology, 55*, 34-37.
- Martin, K. A., & Leary, M. R. (1999). Would you drink after a stranger? The influence of self-presentational motives on willingness to take a health risk. *Personality and Social Psychology Bulletin, 25*, 1092–1100. doi:10.1177/01461672992512003
- Mayo, C. W., & Crockett, W. H., (1964) Cognitive complexity and primacy-recency effects in impression formation. *Journal of Abnormal and Social Psychology, 68*, 335-338.
- Meriac, J. P., Woehr, D. J., Gorman, C. A., & Thomas, A. L. E. (2013). Development and validation of a short form for the multidimensional work ethic profile. *Journal of Vocational Behavior, 82*, 155-164.
- Murphy, N. A. (2007). Appearing smart: The impression management of intelligence, person perception accuracy, and behavior in social interaction. *Personality and Social Psychology Bulletin, 33*, 325– 339. doi: 10.1177/0146167206294871
- Nagy, B., Kacmar, M., & Harris, K. (2011). Dispositional and situational factors as predictors of impression management behaviors. *Journal of Behavioral and Applied Management, 12*, 229-245.
- Nezlek, J. B., Schutz, A., & Sellin, I. (2007). Self-presentational success in daily social interaction. *Self and Identity, 6*, 361–379 doi:10.1016/j.jesp.2012.09.001

- Nicholson, N. (1990). The transition cycle: Causes, outcomes, processes and forms. In S. Fisher & C. L. Cooper (Eds.), *On the move: The psychology of change and transition* (pp. 83-108). Chichester, England: John Wiley and Sons.
- O'Keefe, B. J. (1984). The evolution of impressions in small working groups: Effects of construct differentiation. In H. E. Sypher & J. L. Applegate (Eds.), *Communication by children and adults: Social cognitive and strategic processes* (pp. 262-291). Beverly Hills, CA: Sage.
- O'Keefe, B. J., & Delia, J. G. (1982). Impression formation and message production. In M. Roloff & C. R. Gerger (Eds.), *Social cognition and communication* (pp. 33-72). Beverly Hills, CA: Sage
- O'Keefe, B. J., & McCornack, S. A. (1987). Message design logic and message goal structure: Effects on perceptions of message quality in regulative communication situations. *Human Communication Research, 14*, 68-92.
- O'Keefe, D., & Shepherd, G. J. (1987). The pursuit of multiple objectives in face-to-face persuasive interactions: Effects of construct differentiation on message organization. *Communication Monographs, 64*, 396-419.
- O'Keefe, D., & Shepherd, G. J. (1989). The communication of identity during face-to-face persuasive interaction: Effects of perceiver's construct differentiation and target's message strategies. *Communication Research, 16*, 375-404.
- Pataki, S. P., & Clark, M. S. (2004). Self-presentations of happiness: Sincere, polite, or cautious? *Personality and Social Psychology Bulletin, 30*, 905-914.  
doi:10.1177/0146167204264090

- Rimkus, L. K. (2012). *A new measure of counterproductive student behavior* (Master's thesis). East Carolina University, Greenville, NC.
- Rosenfeld, H. M. (1967). Nonverbal reciprocation of approval: An experimental analysis. *Journal of Experimental Social Psychology, 3*, 102-111.
- Rosenfeld, P. R., Giacalone, R. A., & Riordan, C. A. 1995. *Impression management in organizations: Theory, measurement, and practice*. New York, NY: Routledge.
- Schlenker, B. R. (1980). *Impression management: The self-concept, social identity, and interpersonal relations*. Monterey, CA: Brooks/Cole.
- Schlenker, B. R. (1985). Identity and self-identification. In B. R. Schlenker (Ed.), *The self and social life* (pp. 65-99). New York, NY: McGraw-Hill.
- Schmitt, N., & Kuncze, C. (2002). The effects of required elaboration of answers to biodata measures. *Personnel Psychology, 55*, 569-588.
- Schmitt, N., Oswald, F. L., Kim, B. H., Yoo, T., Gillespie, M. A., & Ramsay, L. J. (2003). Impact of elaboration on socially desirable responding and the validity of biodata measures. *Journal of Applied Psychology, 88*, 979-988
- Scott, W. A., (1963). Cognitive complexity and cognitive balance. *Sociometry, 26*, 66-74.
- Shepherd, G. J., & Trank, D. M. (1989). Individual differences in consistency of evaluation: Student perception of teacher effectiveness. *Journal of Research and Development in Education, 22*, 45-52.
- Stöber, J. (2001). The Social Desirability Scale-17 (SDS-17). *European Journal of Psychological Assessment, 17*, 222-232.

- Tedeschi, J. T., & Melburg, V. (1984). Impression management and influence in the organization. In S. B. Bacharach & E. J. Lawler (Eds.), *Research in the sociology of organizations* (Vol. 3., pp. 31-58). Greenwich, CT: JAI.
- Vannoy, J. S. (1965). Generality of cognitive complexity-simplicity as a personality construct. *Journal of Personality and Social Psychology*, 2, 385-396. doi:10.1037/h0022270
- Vorauer, J. D., & Miller, D. T. (1997). Failure to recognize the effect of implicit social influence on the presentation of self. *Journal of Personality and Social Psychology*, 73, 281-295. doi:10.1037/0022-3514.73.2.281
- Wayne, S. J., & Ferris, G. R. (1990). Influence tactics, affect, and exchange quality in supervisor-subordinate interactions: A laboratory experiment and field study. *Journal of Applied Psychology*, 75, 487-499.
- Weiss, B., & Feldman, R. S. (2006). Looking good and lying to do it: Deception as an impression management strategy in job interviews. *Journal of Applied Social Psychology*, 36, 1070–1086. doi:10.1111/j.0021-9029.2006.00055.x
- Wiener, D. N. (1948). Subtle and obvious keys for the MMPI. *Journal of Consulting Psychology*, 12, 164-170.
- Woehr, D. J., Miller, M. J., & Lane, J. A. S. (1998). The development and evaluation of a computer-administered measure of cognitive complexity. *Personality and Individual Differences*, 25, 1037-1049.

# APPENDIX A: Institutional Review Board Approval

6/18/2014

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**EAST CAROLINA UNIVERSITY**  
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600 Moye Boulevard · Greenville, NC 27834  
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## Notification of Exempt Certification

**From:** Social/Behavioral IRB  
**To:** [Jennifer Bowler](#)  
**CC:**  
**Date:** 11/25/2013  
**Re:** [UMCIRB 13-002647](#)  
The impact of cognitive complexity on impression management

I am pleased to inform you that your research submission has been certified as exempt on 11/25/2013. This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

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IRB00000705 East Carolina U IRB #1 (Biomedical) ICRG0000418  
IRB00003761 East Carolina U IRB #2 (Behavioral/SS) ICRG0000418