A Thesis
Submitted to the Faculty
of
Xavier University
in Partial Fulfillment of the
Requirements for the Degree of
Master of Arts
by
Jesse Simpson
January 28th, 2015

Approved:

[Signature]
Karl Stuckenborg, Ph.D
Chair, School of Psychology

[Signature]
Mark Nagy
Mark Nagy, Ph.D
Thesis Chair
The Effect of the Imposter Phenomenon and Task Difficulty

on Self-Handicapping in the Workplace
Thesis Committee

Chair
Mark Nagy, Ph.D.
Associate Professor of Psychology

Member
Dalia Diab, Ph.D.
Assistant Professor of Psychology

Member
Karl Stukenberg, Ph.D.
Chair and Associate Professor of Psychology
Acknowledgements

I feel extremely fortunate that I have been around such amazing people throughout the duration of my thesis and academic career. First and foremost, I owe an unbelievable amount of thanks to my incredible mother, Vickie. Without her unwavering support and love, I am certain that I would not be where I am today. I must also thank my supportive brother, Matt. His advice and assistance helped me stay focused and on track when times were difficult. Next, I must thank my awesome girlfriend, Hannah. Nobody had more patience and provided me with encouraging words throughout this process than she did. I must also mention my advisor and friend, Mark Nagy. This process was much easier with your invaluable advising and teaching throughout my time here at Xavier. Finally, I want to thank my committee members, Karl Stukenberg and Dalia Diab. Your guidance and recommendations throughout this journey are very appreciated.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>i</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>ii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>iii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>iv</td>
</tr>
<tr>
<td>List of Appendices</td>
<td>v</td>
</tr>
<tr>
<td>Abstract</td>
<td>vi</td>
</tr>
</tbody>
</table>

## Chapter

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Review of the Literature</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>Rationale and Hypotheses</td>
<td>14</td>
</tr>
<tr>
<td>III</td>
<td>Method</td>
<td>17</td>
</tr>
<tr>
<td>IV</td>
<td>Results</td>
<td>23</td>
</tr>
<tr>
<td>V</td>
<td>Discussion</td>
<td>27</td>
</tr>
<tr>
<td>VI</td>
<td>Summary</td>
<td>34</td>
</tr>
</tbody>
</table>

References............................................................................. 48

Appendices............................................................................. 54
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Descriptive statistics and correlations between the Imposter and the Self-Handicapping Scales</td>
<td>24</td>
</tr>
</tbody>
</table>
List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Depicted moderator relationship between IP level and self-handicapping</td>
<td>16</td>
</tr>
<tr>
<td>2.</td>
<td>Relationship between IP level and self-handicapping</td>
<td>26</td>
</tr>
</tbody>
</table>
## List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Clance’s Imposter Phenomenon Scale</td>
<td>54</td>
</tr>
<tr>
<td>B. Self-handicapping Scale Short Form</td>
<td>55</td>
</tr>
<tr>
<td>C. Task Difficulty Prompts</td>
<td>56</td>
</tr>
<tr>
<td>D. Manipulation Check</td>
<td>57</td>
</tr>
<tr>
<td>E. Demographics</td>
<td>58</td>
</tr>
<tr>
<td>F. IRB Approval Letter</td>
<td>60</td>
</tr>
<tr>
<td>G. Informed Consent</td>
<td>61</td>
</tr>
<tr>
<td>H. Modified Self-handicapping Scale</td>
<td>62</td>
</tr>
<tr>
<td>I. Debriefing Form</td>
<td>63</td>
</tr>
</tbody>
</table>
Abstract
This study investigated how task difficulty and the imposter phenomenon affect the likelihood to self-handicap. A total of 150 participants were asked to complete tests that measured imposter tendencies and the likelihood to self-handicap. Then, participants were given either a simple or difficult task vignette related to the workplace, and they were asked to imagine this task was for their ideal job. Finally, participants completed a modified self-handicapping scale that consisted of questions more related to the task they were given. Results showed that the imposter phenomenon and the tendency to self-handicap were positively related. Moreover, the likelihood to self-handicap was not related to the difficulty of the task. These findings support the notion that self-handicapping may be a bit more consistent than originally hypothesized, and that the difficulty of an imagined task may not affect the likelihood of an individual to self-handicap. Overall, it appears that the imposter phenomenon and self-handicapping are related, but the tendency to self-handicap may not be affected by how difficult an imagined task appears to be.
Chapter I

Review of the Literature

Individuals often lack the ability to internalize their own accomplishments. The lack of properly being able to identify one's own skills or abilities is referred to as the imposter phenomenon (Clance & Imes, 1978). This often results in a sense of feeling like a fraud regardless of whether the individual actually does possess adequate skills. This imposter-like feeling is prevalent with maladaptive consequences in even the highest achieving individuals. For instance, an individual who is accepted into a prestigious doctorate program would continually think they were mistakenly admitted due to a reviewer mistake, or received lucky scores on their entrance exams (Kolligian & Sternberg, 1991). Support for the imposter phenomenon existing in high achieving individuals has been shown in studies of honors students and successful business executives (Cromwell, Brown, Sanchez-Huceles, & Adair, 1990; Henning, Ey & Shaw, 1998; Topping & Kimmel, 1985).

Aside from the imposter phenomenon, individuals may often perform actions detrimental to their performance just before facing evaluation situations. Among these behaviors is the act of self-handicapping. Self-handicapping occurs when individuals intentionally engage in behaviors detrimental to performance in an evaluative setting to protect or enhance their self-esteem (Jones & Berglas, 1978). An example of this phenomenon might be an individual who is about to enter finals week. Rather than
studying, an individual may choose to go out and drink the night before their exams. When, or if, the individual receives grades below their standards, they choose to blame the bad grades on not feeling well.

The goal of this study is to further advance the relationship between the imposter phenomenon and self-handicapping in the workplace. There have only been a few studies that have investigated the links between imposter tendencies and self-handicapping (Langford & Clance, 1993; Ferrari & Thompson, 2006; Langford & Clance, 1993; Want & Kleitman, 2006), and further studies related to the workplace setting need to be investigated. Given the potential for negative outcomes when individuals engage in the imposter phenomenon and self-handicapping behaviors, it is important to identify situational conditions in which imposters may self-handicap.

The Imposter Phenomenon

The imposter phenomenon (IP) has been established through numerous reports of individuals that, despite their objective successes, feel as though they cannot claim their achievements as their own (Want & Kleitman, 2006). There tends to be a pattern of behaviors relevant to the imposter phenomenon across the literature. Anxiety, depression, and lack of self-confidence are among the most prevalent characteristics associated with IP (Clance & Imes, 1978). Shame is another feeling positively correlated with the IP (Langford & Clance, 1993). The construct of the imposter phenomenon is also related to the clinical concept of narcissism (McWilliams, 2011). This is problematic because imposters rely heavily on the justification of others, but continually lack the ability to internalize achievements that would reduce many of these aversive patterns of behavior.
Gender-related research has also been studied within the context of the IP. Clance and Imes' (1978) initial study of IP found that women tended to attribute their success to luck instead of skills. Clance and Imes' reasoning for IP being more represented in women was largely based on the notion of gender stereotyping being more pervasive among women than men. Later research by Jostl, Bergsmann, Luftenegger, Schober, and Speil (2012) investigated females in university settings in relation to IP and self-efficacy. Their sampled included 631 participants, 389 (61.6%) of which were females. Self-efficacy is essentially the belief that one can perform specific tasks in a competent manner. Participants in the Hostl et al. (2012) study were categorized in one of four quadrants, with the first quadrant including individuals with no imposter fears and gradually increasing until the fourth quadrant. The quadrant with the highest imposter levels consisted of 93% females. Jostl et al. reported that females in doctoral programs endorsed higher levels of IP and lower levels of self-efficacy than their male counterparts. There have also been contradictory results in the outcomes regarding gender and the IP. For example, Topping and Kimmel (1985) reported higher levels of the IP in women, whereas Cozzarelli and Major (1990) reported higher levels in men.

Similar to these effects is the locus of control, which is how an individual perceives a connection between their actions and the consequences of those actions (Robinson & Goodpaster, 1991). Individuals are categorized as being either externally or internally focused when discussing this phenomenon. Whereas both deal with how an individual perceives actions and consequences, those who are more external believe that outcomes are determined by things such as luck and fate, and those who are more internal believe outcomes are determined by their own behaviors.
The imposter phenomenon, however, extends further than this concept in that people have a pervasive fear of being exposed as a phony, experiencing self-doubt, and refuse to accept accomplishments as their own. Considering that imposters lack the ability to internalize their own accomplishments, it is not surprising that the beliefs of their own capabilities are low. In addition to significant effects of the imposter phenomenon, Jostl et al. (2012) found that the imposter phenomenon is related to lower self-efficacy across both genders.

The consequences of low self-efficacy in the workplace could have devastating effects on job performance (Olayiwola, 2011). In fact, significant positive correlations have been found between job performance and self-efficacy of teachers ($r = .85$). Furthermore, of the 95% of teachers with low job performance, 90% rated themselves low in self-efficacy. In other words, similar to the feelings and patterns of thought experienced by imposters, if individuals feel as though they are incompetent and cannot complete their tasks efficiently, they may also experience lower performance.

As noted above, low levels of self-esteem may be associated with IP tendencies. A construct that may also be related to IP is perfectionism (Ferrari & Thompson, 2006; Henning, Ey, & Shaw, 1998). Thompson, Foreman, and Martin (2000) found that imposters are constantly concerned with the probability of making mistakes, and often deal with greater levels of anxiety.

Research has also shown that there are consistent relationships between imposters and specific types of personality traits. Studies have revealed a correlation with imposters on the dimensions of extraversion, neuroticism, and conscientiousness. Specifically, imposters tended to score low on extraversion, high on neuroticism, and low on
conscientiousness (Bernard, Dollinger, & Ramaniah, 2002; Chae, Piedmont, Estadt, & Wicks, 1995; Lawler, 1984). The relationship between IP and low levels of extraversion can be potentially explained by looking at typical patterns that introverts elicit. According to previous studies, introverts prefer to keep a piece of their personality to themselves, hiding it from others. Additionally, introverts have a greater likelihood of describing their own personality-type as shy, with low self-confidence, both of which are related to the IP (Langford & Clance, 1993). Ross et al. (2001) concluded that neuroticism accounts for the most variance of the IP in relation to conscientiousness and extraversion. Two potential outcomes of neuroticism, namely depression and anxiety, were among the most related to the IP (McCrae & Costa, 1992). Low conscientiousness can be potentially explained by the tendency for imposters to procrastinate, especially in evaluative situations, given the fact that procrastinators often forget to complete important tasks in a reasonable timeframe (Want & Kleitman, 2006). In addition, Ross et al. found negative correlations between the IP and conscientiousness with a diverse sample.

Kumar and Jagacinski’s (2006) research regarding imposter fears and achievement led to speculations regarding task difficulty. Analyzing imposter fears in relation to achievement, they found that imposters experience greater anxiety in situations that must showcase ones abilities. Furthermore, their research showed that imposters experience heightened fears of displaying a lack of competencies when trying to achieve goals. Finally, their research provided evidence that test anxiety and low confidence was related to imposter fears. With this evidence, imposter behaviors would be heightened when faced with difficult tasks.
There are not an abundant number of imposter measures, but Holmes, Kertay, Adamson, Holland, and Clance (1993) investigated the two most common ones, the Harvey Scale (Harvey, 1981) and the Clance Imposter Phenomenon Scale (Clance, 1985) (CIPS), and found discrepancies in the methods used to measure and determine IP. An issue Holmes et al. identified is that many studies used a median split to divide participants into high IP and low IP groups. This split could have lead to a lot of false positives or false negatives when measuring the IP construct, especially if the sample consisted of participants who were likely to be skewed in the imposter dimension. Another issue Holmes et al. identified is the discrepant findings in early literature, which may have been due to the fact that researchers used various instruments to measure the IP construct. As mentioned previously, Topping and Kimmel (1985) reported higher levels of the IP in women, whereas Cozzarelli and Major (1990) reported higher levels in men.

The CIPS was further examined by Holmes et al. (1993) who suggested new cutoff scores to reduce the number of false positives and false negatives of those engaging in the IP. Cutoff scores were utilized because they were most often reported in past research (Holmes et al.). The initial cutoff score was set at 58, which led to five false positives being reported in this sample of 62 participants. However, on the CIPS, the lowest score obtained by an imposter was at 62, and the highest non-imposter score was 67. Due to these findings, Holmes et al. proposed a new cutoff score of 62, which resulted in only one false positive and zero false negatives in a sample of 62 participants. Due to a more precise identification of those who elicit imposter behaviors, the Clance (1985) measure was used in this study.
Self-Handicapping

A construct that has been closely related to the IP is the notion of self-handicapping, which involves an individual engaging in behaviors detrimental to their own performance when facing evaluations. Jones and Berglas (1978) argued that individuals with high and low self-esteem are likely to engage in self-handicapping. The consequences of this behavior often result in the individual externalizing failures (blaming it on outside sources), and internalizing successes (taking credit for themselves), also known as the self-serving bias (Sheppard, Malone, & Sweeny, 2008).

Self-handicapping involves intentionally creating a barrier along the path to the evaluation of oneself, so a failure can be blamed on the barrier and not the individual, but that success can be attributed to the individual's skills.

There are two classifications of self-handicapping that are often reported; behavioral self-handicapping and self-reported self-handicapping. *Behavioral self-handicapping* (e.g., staying up all night before an exam) involves the active creation of a barrier before the evaluation occurs. Another example may be an individual waiting until the last minute to rehearse a presentation for work. Behavioral self-handicapping is not only detrimental to performance, but it can also be physically harmful. Behavioral self-handicappers are prone to higher levels of drug and alcohol use, and lack of sleep (Jones & Berglas, 1978; Rhodewalt & Davison, 1986).

*Self-reported self-handicapping* is the other common classification. It often involves reporting an internal malfunction that can be used as a shield when poor performance is expected. Self-reported self-handicapping distinguishes itself from behavioral self-handicapping in that its occurrence only involves *reporting* some
detritmental phenomenon, whereas behavioral self-handicappers actually participate in it. Some common behaviors associated with self-reported self-handicapping involve an individual claiming test anxiety, social anxiety, illness, and shyness. An example of test anxiety in an academic setting may involve someone reporting test anxiety just before taking an exam and giving themselves a reason to justify poor performance in case the result is a failure (Akin, 2012).

Procrastination is a behavior that has been observed in relation to self-handicapping (Flett, Stainton, Hewitt, Sherry & Lay, 2012). The research relating these two behaviors involves the cognitive processes that procrastinators typically experience. For example, those who tend to procrastinate often feel apprehension in completing important tasks, and low self-actualization. Those who tend to procrastinate report a pattern of negative thoughts that delay the time in which tasks need to be done. Palmer and Gyllensten (2008) provided some typical examples of thought that those who tend to procrastinate may go through, including “I cannot stand doing boring tasks” and “I should have been able to do so much more.” In reality, those who tend to procrastinate could complete tasks in the same amount of time as those who do not consider themselves procrastinators. However, from the perspective of an individual who procrastinates, these negative thought processes need to occur before any productive behaviors can begin. Palmer and Gyllensten’s (2008) research also provided negative consequences that can occur when engaging in procrastination, such as being fired from a job and performing poorly in academic settings.

Motivation is another topic that has been thoroughly researched in relation to self-handicapping. Simek and Kobal-Grum (2011) investigated how intrinsic and
extrinsic motivation differs with individuals who self-handicap. Intrinsic motivation comes from the internal self. For example, an individual who is intrinsically motivated will want to lose weight to increase their own self-confidence. Extrinsic motivation, on the other hand, is related to being motivated by external features, such as an employee going to work only for a paycheck. Research has shown that extrinsic motivation can have detrimental effects on performance in that the motivation does not last long. Additionally, Simek and Kobal-Grum found that intrinsic motivation was negatively correlated with self-handicapping, whereas extrinsic motivation was positively correlated with it.

Research has also shown that common gender stereotypes, among a number of other phenomena, play a role in self-handicapping. Kim, Lee, and Hong (2012) found that women were more likely to endorse the math-gender stereotype (that men are better at math than women) when they were simply anticipating a difficult mathematical task. On the other hand, men would endorse a similar (but reversed) stereotype when faced with a difficult verbal task (Kim et al., 2012). Considering that self-handicapping is a phenomenon that exists across genders, the consequences of self-handicapping can have many negative effects across all types of jobs.

Interestingly, individuals with higher self-esteem are more likely to engage in self-handicapping than those with low self-esteem (Kim et al., 2012). Past research has shown that self-handicapping is utilized more as a tool to protect one’s self-esteem, rather than enhance it. McCracle and Flamm (2012) noted a relationship between “pre-factuals” and those who self-handicap. Engaging in a pre-factual involves asking the question “what if?” in a repetitive nature. Individuals who self-handicap have a higher tendency to
use pre-factuals than those who do not in that they are more likely to ask, "what if I do not do well on this task?" The utilization of pre-factuals is strongly related to engaging in self-handicapping.

Although there are a wide range of self-handicapping studies across most of the domains of psychology, literature that can be directly related to Industrial-Organizational (IO) psychology is sparse. One study that did directly investigate self-handicapping in the context of IO was conducted by Akin (2012), who studied self-handicapping and its relationship to burnout. Akin's study defined burnout as a decrease in energy and power evoked by repetitive and excessive demands. Akin's results showed that there was a positive correlation between self-handicapping and burnout.

In another study related to self-handicapping and IO, Spalding and Hardin (1999) performed research regarding self-handicapping and interviewees. They investigated differences between self-relevant and self-irrelevant interviews, and explicit vs. implicit self-esteem. Self-relevant interviews, as opposed to self-irrelevant interviews, involve the interviewee speaking of topics relevant to their own personal self. Explicit self-esteem is defined as a conscious evaluation of the self, whereas implicit self-esteem is an evaluation of the self that occurs spontaneously and outside of an individual's control. Due to the self-presentational strategies that are evoked during the interview process, Spalding and Hardin found that interviewees who had higher levels of explicit self-esteem had a greater chance of performing self-handicapping than those with implicit self-esteem.

Khalkhali (2012) found supporting evidence that self-handicapping effects task performance. This research asked students to run around a 540m track under a set number
of times. The times were either longer, representing low difficulty, or lower, considered higher difficulty. The results showed that more students self-handicapped and had lower performance under the higher task difficulty conditions. However, there was not a significant relationship between self-handicapping and performance for the easier task. Khalkhali’s research provides some evidence that task difficulty can be a predictor of self-handicapping.

**Imposter Phenomenon and Self-handicapping**

Despite many associations that self-handicapping and the imposter phenomenon have with one another, limited research has found a relationship between the imposter phenomenon and self-handicapping in the workplace. However, one area outside the workplace that has investigated the link between the imposter phenomenon and self-handicapping is parenting styles.

The literature linking parenting styles to the IP and self-handicapping suggests that the development of the imposter phenomenon and self-handicapping occur at the earlier stages of life. Langford and Clance (1993) stated that parents may view their own child as a reflection of themselves. To avoid the child possibly failing, the parent takes over the tasks that the child is responsible for. As a result, the child lacks a proper sense of his/her own abilities, and does not feel as though they deserve credit from other people, since they did not produce or achieve anything on their own.

Also within the realm of parenting, Want and Kleitman’s (2006) study investigated the likelihood of self-handicapping and IP based on maternal and paternal care. Participants completed the CIPS, the Self-Handicapping Scale, and the Parenting Bonding Instrument (PBI). Their results showed that imposter scores correlated
positively with paternal overprotection, whereas self-handicapping scores correlated positively with a lack of maternal care.

Want and Kleitman's (2006) study also explored self-handicapping and the imposter phenomenon in relation to self-confidence in a wide range of participants (physicians, business executives, students, etc.). Participants completed the Esoteric Analogies Test, which assesses reasoning, verbal skills, and confidence. Their results showed that individuals who reported high levels of IP tended to have lower accuracy, and therefore lower confidence. Want and Kleitman speculated that those high in imposter behaviors may lack the ability to attribute their own abilities to task-related achievements. Likewise, Want and Kleitman speculated that self-handicappers often feel as though they did not earn their success.

Outside of parenting styles, Ferrari and Thompson (2006) discovered links between imposter fears and self-handicapping when examining a sample of men and women. Their results showed that individuals with high imposter scores tend to discredit themselves, externalize successes, and not give merit to those who try to credit their accomplishments. They also found a pattern of behaviors associated with opportunities to save face after a failure, versus times when the negative perception could not be avoided (humiliating failure). Interestingly, when participants had the opportunity to save face, there were no differences between high and low imposters in their likelihood to self-handicap. In contrast, following a humiliating failure, participants with high imposter fears claimed to self-handicap more.

Based on the literature that has been presented, there appear to be relationships between self-handicapping and the IP. Experiences with both are likely to include self-
doubt, decreased performance, a lack of self-confidence and lower self-esteem. These issues can affect multiple aspects of an individual's life, including the workplace (Ferrari & Thompson, 2006; Spalding & Hardin, 1999; Want & Kleitman, 2006). Due to the number of detrimental outcomes that can occur from either construct in the workplace, it is critical to investigate these constructs from an I/O psychology perspective.

Even though Ferrari and Thompson (2006) showed that imposters are likely to self-handicap when trying to protect their self-presentation, their study had some limitations. For instance, their study did not identify whether participants are likely to self-handicap prior to completing a task. Furthermore, whereas task difficulty may affect imposter behaviors and self-handicapping independently, there is no study that looks at all of these variables together. These limitations sparked the motivation of the current study. In contributing to the I/O psychology literature, this study focused solely on workplace tasks, and provided information as to whether individuals with varying levels of imposter tendencies are likely to self-handicap when presented with different workplace situations. In other words, this study investigated if task difficulty moderates the relationship between the IP and self-handicapping. It was expected that tasks that are perceived to be more difficult will result in greater levels of self-handicapping when imposter levels are high.
Chapter II

Rationale and Hypotheses

As noted above, previous research has provided some evidence that the IP and self-handicapping are constructs that are related in multiple ways. Langford and Clance (1993) speculated that the imposter phenomenon and self-handicapping are both developed in the earlier stages of life, depending on parenting styles. Want and Kleitman (2006) posited that self-handicappers often feel as though they did not earn their successes, a notion consistently experienced by imposters. Finally, Ferrari and Thompson (2006) found that individuals who were high in imposter levels were likely to self-handicap after experiencing the failure of a task. This is similar to the strategies that self-handicappers partake in to protect their self-esteem. Therefore, it is proposed that:

Hypothesis 1: The IP and self-handicapping scales will be positively related

Again, as previously noted, Ferrari and Thompson (2006) discovered some links between IP and self-handicapping in a more applied setting. According to their results, those high in imposter levels tended to self-handicap after a perceived failure. However, when the failure was not perceived as detrimental to the individual, they were not as likely to self-handicap. Also, Khalkhali’s (2012) research provided evidence that individuals who considered a task as more difficult were more likely to self-handicap. Finally, Kumar and Jagacinski (2006) speculated that imposter behaviors are heightened
in situations that an individual is faced with a difficult task. Due to the research, it is proposed that:

_Hypothesis 2:_ Task difficulty will moderate the relationship between the IP and self-handicapping such that those individuals in the high difficulty group will experience greater levels of self-handicapping across imposter groups, whereas participants in the low difficulty group will report significantly lower levels of self-handicapping across imposter groups (see Figure 1).
Figure 1. Depicted moderator relationship between IP level and self-handicapping.
Chapter III

Method

Participants

Two hundred participants were recruited using the online survey tool Survey Gizmo. Only participants within the confines of the United States were selected for the survey. The link for the survey was included in the MTurk marketplace listing. Barger, Behrend, Sharek, and Sinar (2011) described MTurk as a low cost and fast way to acquire high quality data. Two quality checks were utilized throughout the administration of the scales. Furthermore, only participants with a Human Intelligence Task (HIT) rate (the percentage of hits approved by the researcher for each participant) of at least 95% were allowed to participate in the study. Additionally, only participants with a minimum of 50 HITs completed were able to participate in the study. Participants were compensated $.25 for taking part in the study, but only if all required items were completed and all quality and manipulation checks were passed. Fifty participants were not included in the study due to failing quality or manipulation checks or failing to complete all required items. Specifically, 23 failed to complete the survey, and 27 were disqualified for not passing the quality/manipulation checks. Based on Cohen (1992), at least 128 participants were required in order to have a .80 power to detect a medium effect with an alpha of .05. Therefore, the resulting sample size of 150 participants was sufficient.
The sample size demographic information is reported based on usable responses. Forty-four percent were female and 55.3% were male (one person preferred not to respond). The average age of participants was 35.11 years ($SD = 12$ years). Approximately 38% were White, 4% were Black or African American, 50.7% were Asian, and the remaining 6.1% reported their race as Native Hawaiian or Pacific Islander, Hispanic or Latino, or Other. Two participants preferred not to respond to the race question. About 1.3% of the participants had no high school diploma, 5.3% had a high school diploma or equivalent, 10% had some college but no degree, 6.7% had an Associates degree, 46% had a Bachelors degree, 28% had a graduate degree, and 2.7% reported having a doctoral degree. At the time of data collection, approximately 1.3% reported having no work experience, 6% reported 0-1 years of work experience, 9.3% reported 1-2 years of work experience, 11.3% indicated 2-3 years of work experience, 14% indicted 3-5 years of work experience, 21.3% had 5-10 years of work experience, 36% had 10+ years of work experience. Finally, 71.3% indicated they were currently employed, and 20.7% reported being previously employed.

Materials and Measures

Imposter phenomenon. Clance (1985) refined and standardized the imposter phenomenon measurement with the Clance Imposter Phenomenon Scale (CIPS). Holmes et al. (1993) showed that the updated Clance measure was more reliable and sensitive than the Harvey Scale, which had been used frequently in past research (Chrisman, Clance, Holland & Glickauf-Hughes, 1995). As noted above, in a study of 62 participants, the CIPS resulted in only one false positive and zero false negatives (Holmes et al., 1993). In addition to the improved measurement, this scale was found to have a
level of internal consistency at .94 (Chrisman et al., 1995). For this study, the internal consistency was .90. Chrisman et al. (1995) provided support for construct validity of the CIPS by showing that IP was related to depression, self-esteem, social anxiety, and self-monitoring. Due to this evidence, the CIPS was used in this study. Specifically, the sum total of the CIPS items was calculated to represent an average imposter level for each participant. Whereas the IP has often been reported using cutoff scores (Holmes et al., 1993), measuring IP as a continuous variable should result in greater statistical power and thus, in this study, was treated as a continuous measure. In other words, there was no particular score that categorized an individual as either “imposter” or “non-imposter”. This scale is a self-administered, 20-item measure (21 items with the quality check included) with a 5-point scale of 1 (not at all true) to 5 (not at all true) (see Appendix A).

**Self-handicapping.** This study utilized the short-form of the self-handicapping scale. Strube (1986) made comparisons between the long and short self-handicapping scale formats and found that the shorter form had higher internal consistency than the longer form (alpha = .70). Correlations between this scale and self-esteem inventory scales had shown negative relationships \( r = -.54 \), providing evidence for the validity of the scale (Chrisman et al., 1995). This scale is a self-report of one's own probability to self-handicap. It consists of 10 items based on a 6-point scale ranging from 1 (disagree very much) to 6 (agree very much). Scoring the measure was completed by adding up the total score from each item, with one reverse scored item (see Appendix B). For this study, the internal consistency was .73. In addition to the self-handicapping scale, a modified self-handicapping scale was used. This scale consists of the same questions as the
original scale with minor wording adjustments so the questions related to the vignettes in the study. For this study, the internal consistency of the modified scale was .80.

**Task difficulty vignettes.** Participants were randomly assigned to either to one of two task difficulty vignettes (low task difficulty or high task difficulty). The vignettes asked participants to imagine they were working for an organization at their ideal job, and were then given either the high task difficulty or low task difficulty information (see Appendix C). More information regarding these vignettes are found in the Procedures section.

**Manipulation and quality checks.** There was a manipulation check that asked participants to identify whether the task they were given was difficult or simple (see Appendix D). Moreover, two quality checks were administered that simply instructed the participants to mark a specific answer, such as “2”. These checks were included to ensure that participants were answering the questions accurately throughout the study. If participants failed these checks, then their data were discarded, and they were not compensated for the study.

**Demographics.** After completing the measures, participants were asked to fill out a form asking for various demographic information, including age, gender, ethnicity, work experience, and level of education (see Appendix E).

**Procedure**

Institutional Review Board (IRB) approval was sought through the Xavier University Institutional Review Board through the exempt process (please see Appendix F for the IRB approval letter). The exempt process was most appropriate for this study
because it was survey research, the responses were anonymous, it did not include any forms of deception, and it constituted minimal harm to participants.

Once the survey had been granted IRB approval, data were collected through the hosted website Survey Gizmo. The survey link was posted on the MTurk marketplace listing. The completion of all required questionnaires took approximately 10 minutes. Participant’s scores were protected through anonymous data collection. In other words, they did not have to include their name on any documents and they were instructed that if they felt uncomfortable answering any questions related to demographics they did not have to answer them.

After clicking on the link to the survey, participants read and completed the informed consent form (see Appendix G). Next, all participants completed the CIPS. Following this scale, participants completed the general self-handicapping scale. After this scale was completed, the participants were randomly assigned to one of two task difficulty scenarios (see Appendix H). These scenarios were designed to elicit different emotions based on the perceived difficulty of the task. Instructions were given to participants prior to reading either prompt. The prompts were based on workplace tasks that employees perceived as relatively simple (low task-difficulty), or very complex (higher task-difficulty). Then, participants were asked to complete the modified self-handicapping scale. The modified scale had the same general format of the other utilized scale, with slight wording adjustments such that they pertained to the vignettes (see Appendix I). After this scale was completed, participants responded to the manipulation check, as previously discussed. Following these measures, participants were asked to provide some demographic information, including age, gender, ethnicity, education, and
work experience. Once the study was completed, participants were given a debriefing form (see Appendix I). This form included contact information of the principal researcher and the faculty advisor, in case further questions were desired.
Chapter IV

Results

A Pearson-Product moment correlation was conducted to test Hypothesis 1, which stated that the IP and self-handicapping scales would be positively related. The results of the correlational analysis presented in Table 1 show that this hypothesis was supported. The correlation between the imposter scale and the modified self-handicapping scale was significant, \( r(148) = .58, p = .01 \), there was a significant positive correlation between the imposter scale and the self-handicapping scale. Additionally, the correlation between the imposter scale and the modified self-handicapping scale was significant, \( r(148) = .56, p = .01 \), there was a significant positive correlation between the imposter scale and the modified self-handicapping scale. Although not hypothesized, a correlation was also conducted between the self-handicapping and the modified self-handicapping scales, which was also significant \( r(148) = .80, p = .01 \).

Hypothesis 2 stated that task difficulty would moderate the relationship between the IP and self-handicapping such that those individuals in the high difficulty group would experience greater levels of self-handicapping across imposter groups, whereas participants in the low difficulty group will report significantly lower levels of self-handicapping across imposter groups. A multiple regression analysis was conducted to test hypothesis 2. Dummy coding was used in the analysis when describing the two (1=simple; 2=difficult). Task difficulty and the imposter scores were entered into step one,
Table 1

*Descriptive statistics and correlations between the Imposter and the Self-Handicapping Scales*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>Imposter</th>
<th>Self-Handicapping</th>
<th>SH-Mod</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imposter</td>
<td>56.7</td>
<td>14.1</td>
<td>150</td>
<td>(.90)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-Handicapping</td>
<td>36.1</td>
<td>7.6</td>
<td>150</td>
<td>.58*</td>
<td>(.73)</td>
<td>-</td>
</tr>
<tr>
<td>SH-Mod</td>
<td>32.9</td>
<td>8.5</td>
<td>150</td>
<td>.56*</td>
<td>.80*</td>
<td>(.80)</td>
</tr>
</tbody>
</table>

*Note. SH-Mod = Self-Handicapping Modified Scale
*p < .01*
and the interaction between task difficulty and the imposter phenomenon was entered in step two. The modified self-handicapping scores were entered as the dependent variable. This hypothesis was not supported, $\Delta R^2(2, 145) = .01, p = .65$. Specifically, task difficulty did not significantly moderate the relationship between IP and self-handicapping (see Figure 2).

As a supplemental analysis, an independent-samples $t$ test was conducted to evaluate the differences in responses on the self-handicapping scale between the difficult task and simple task groups. This test was not significant $t(148) = -.35, p = .72$, indicating that there were no differences in self-handicapping between the difficult task and simple task groups.
Figure 2. Relationship between IP level and self-handicapping.
Chapter V

Discussion

The purpose of this study was to determine if task difficulty moderated the relationship between self-handicapping and the IP. The first hypothesis proposed that self-handicapping and the IP would be positively related. Hypothesis 1 was supported, in that participants scores on the imposter scale tended to have a positive relationship with scores on the self-handicapping scales. This result was not surprising, as previous research has provided evidence that imposters and self-handicappers often experience similar feelings, such as not earning their own successes (Want & Kleitman, 2006).

As discussed earlier, those who engage in self-handicapping tend to experience self-doubt, decreased performance, and lower self-esteem. Moreover, those who suffer from the imposter phenomenon tend to also experience phenomena such as doubt, lowered confidence, and decreased performance. Additionally, due to not being able to accept accomplishments as their own, those who suffer from the imposter phenomenon tend to have lower self-esteem. The finding that the IP and self-handicapping are positively related suggests that if individuals refuse to accept their accomplishments and accolades as their own, regardless of how many they have, they may perform actions detrimental to their performance prior to evaluation. Whereas this relationship was expected, it is still noteworthy. In workplace situations, it may be that the most accomplished individuals are likely to be assigned tasks that have the greatest impact on
organizational performance. Thus, it is important that such individuals do not engage in self-defeating behaviors that could negatively impact their ability to complete those tasks. Yet, engaging in either the IP or SH may negatively impact performance. For example, previous research has found that those who self-handicap are more likely to experience burnout and experience a decrease in energy and power that comes from excessive demands (Akin, 2012), all of which may likely decrease performance. Additionally, due to the those that self-handicap having pervasive thoughts that their work is simply not good enough, they are prone to perfectionism, which often results in the incompletion of tasks, which also will likely result in a decrement in performance. Due to these outcomes, organizations should be careful assigning tasks, regardless of the difficulty, to individuals who do not accept accomplishments as their own.

Hypothesis 2 introduced an idea that has not been thoroughly examined in the previous literature, which was the notion of task difficulty as a moderator. Specifically, it stated that task difficulty would moderate the relationship between the imposter phenomenon and self-handicapping such that participants in the difficult task condition would have significantly higher self-handicapping scores than those in the simple task condition. This hypothesis was not supported, such that task difficulty did not moderate the relationship between self-handicapping and the IP.

This finding provides evidence that task difficulty and the imposter phenomenon may not impact the likelihood of an individual to perform actions that may harm their performance. This further implies the point above that organizations should be careful in the assignment of tasks to individuals that elicit behaviors related to these phenomena. The lack of an effect of task difficulty is troublesome considering that the behaviors
associated with self-handicapping and the imposter phenomenon such as self doubt, and a lack of self-esteem will be equally present regardless of the task being simple or complex. In other words, even if a work task is simple and may not result in major consequences to the employee, the assignment of this task to an individual that elicits these behaviors can still have a negative impact on an organization via the consistent patterns of lowered performance associated with self-handicapping. Furthermore, the accumulation of simpler tasks not being properly fulfilled can eventually result in major consequences for an organization.

These outcomes did not support with the research proposed by Ferrari and Thompson (2006). Their results revealed that those that who were considered high on imposter behaviors tended to self-handicap after a perceived failure. One explanation for these differing results may be due to the environment in which the participants completed their survey. Specifically, this research was conducted online, in a low risk environment, and likely did not arouse any sense of perceived failure. It is likely that participants, even in the difficult task condition, did not sense any sort of threat to their self-esteem from the possibility of failing or not completing their task. At the time data were collected, over 70% of the participants were currently employed, and 20% indicated that they were previously employed. This shows that the overwhelming majority of the participants had likely encountered tasks that had created real risks or threats to the participants’ self-esteem in the workplace, and the scenarios presented in this survey may not have created the sense of anxiety they had intended. Conducting this research while having participants actually complete a task, rather than providing a vignette of one, may have provided different outcomes, and is a suggestion for future research.
Interestingly, the data collected in this study suggests that the imposter phenomenon may not be very common. For example, the average CIPS score was only a 2.8 on a 5-point scale, indicating that participants often reported scores less than *sometimes* in terms of feeling like an imposter. Additionally, only 4 out of the 150 participants had an average imposter score above 4.00 (*often*). Hence, these data suggest that the prevalence of the imposter phenomenon may be a bit of an overestimate, or at least the prevalence may not occur often for the majority of the participants in this study.

**Theoretical and Practical Implications**

The results of the current study contribute to the current research by examining the extent to which task difficulty moderated the relationship between self-handicapping and the imposter phenomenon. Past research has focused on these phenomena in relation to one another, such as Langford and Clance’s (1993) work that proposes that these constructs are developed at earlier stages in life, and Want and Kleitman’s (2006) work that proposed self-confidence was related to these variables. The work in this study was unique in that it focused specifically on workplace tasks, and how task difficulty may moderate the likelihood that someone would self-handicap based on how difficult the task was, rather than focusing on how self-handicapping and the IP may be related from a developmental standpoint. Whereas self-handicapping and the IP were positively related, results showed that task difficulty did not moderate the relationship between the two.

Perhaps the early development work proposed by Langford and Clance (1993) shows why the likelihood to self-handicap was consistent. In other words, because these phenomena are developed at such an early stage in life, these thoughts and behaviors are not affected by variables like task difficulty. This relationship further implies the
importance of organizations to be able to identify individuals who elicit behaviors that may have a relationship with either self-handicapping or the imposter phenomenon.

**Limitations and Future Research Suggestions**

The current study has a few limitations. First, this study recruited participants using the MTurk marketplace listing. This created some limitations of the sample in that only individuals with computer access and navigation skills were able to access the study. Additionally, this may have limited individuals in lower socioeconomic classes that may not have had computer access. However, the decision to use MTurk was made in order to have participants with work-related experience, which is less likely to occur in a sample of college students. This was accomplished, with 92% of participants stating that they had some form of work experience in their past. According to Barger, et al. (2011), MTurk is a low cost and fast way to acquire high quality data. Whereas the limitations of MTurk are accounted for, the benefits appear to outweigh them.

Another potential limitation, as noted previously, are the stressed work conditions through vignettes that were designed by the researcher. Whereas the vignette is purposely designed to elicit emotions as similar to an actual situation as possible, participants may not have reacted with the same level of emotion to these vignettes as they would in actual work conditions. This is especially true considering the overwhelming majority of participants had work experience and likely had faced difficult tasks that were actual threats to their self-esteem and their employment status.

The nature of the anchors used by the self-handicapping scale is also concerning. Again, this scale consisted of 6 varying anchors ranging from *disagree very much* to *agree very much*. Because it was a 6 point scale, it essentially forces participants to
choose one side of the self-handicapping scale. In other words, there was no midpoint for participants to choose if they felt neutral on an item. Due to this format, participants' responses may have not been as descriptive as they were forced to choose whether they agreed or disagreed with a particular item.

Another potential limitation was the use of the modified scale. The original self-handicapping scale items were modified to better reflect the tasks given in the vignettes. However, some the original questions may have been unrelated to the vignette scenario. For example, question 10 stated, "I overindulge more often than I should". As such, it may have been challenging for some participants to draw a connection between the scale and the task on some of the items, even after the modifications occurred. In fact, out of the 10 items on the scale, only three could have been considered to be closely related to the work task. Consequently, all hypotheses involving self-handicapping were reanalyzed such that only those three items were used to represent self-handicapping. Despite this reanalysis, the obtained results were essentially the same, $\Delta R^2(2,145) = .01, p = .65$.

There are also a couple future research suggestions that should be considered. First, future research could attempt to assess task difficulty while actually having participants complete real work related tasks, rather than having them imagining themselves doing so. This type of research would be ideal, as it would likely provide the most descriptive information regarding task difficulty and its relationship with the IP and self-handicapping. This is due to the idea that a real sense of arousal can be created in a practical setting, rather than the hypothetical context utilized in this study.

Future research should also seek to improve the instruments used to measure the IP and self-handicapping. Multiple research studies have shown that there are greater
risks of detrimental outcomes in practical settings for individuals who experience greater levels of imposter or self-handicapping tendencies. Specifically, research conducted by Jostl et al. (2012) revealed that imposters experience lower self-efficacy, which can result in decreased job performance. Additionally, Palmer and Gyllensten (2008) showed that individuals who self-handicap tended to procrastinate, which can lead to negative outcomes such as being fired from a job. These risks should increase awareness of these issues, and should spark researchers’ interest in an updated investigation of the scales.

Conclusions

In conclusion, this study revealed two major results. First, there is further confirmation that the IP and self-handicapping are related such that participants scores on these scales were positively related. Second, task difficulty was found to not moderate the likelihood that imposters will self-handicap. In other words, participants were shown to have similar self-handicapping levels regardless of the level of task difficulty. These findings show that, in relation to the work environment, the difficulty of a task may not affect the likelihood for an individual to self-handicap. Moreover, the early development of these phenomena may reflect the difficulty to affect them, and shows that these behaviors may need a lot of time to change.
Chapter VI

Summary

The lack of properly being able to identify one’s own skills or abilities, and refusing to accept accomplishments as one’s own, is referred to as the imposter phenomenon (Clance & Imes, 1978). A related behavior is the act of self-handicapping. This is referred to as individuals performing actions that may be detrimental to their performance just before facing an evaluative situation.

The goal of this study is to further advance the relationship between the imposter phenomenon and self-handicapping in the workplace. There have only been a few studies that have investigated the links between imposter tendencies and self-handicapping (Langford & Clance, 1993; Ferrari & Thompson, 2006; Langford & Clance, 1993; Want & Kleitman, 2006), and further studies related to the workplace setting need to be investigated.

The Imposter Phenomenon

There tends to be a pattern of behaviors relevant to the imposter phenomenon across the literature. Anxiety, depression, and lack of self-confidence are among the most prevalent characteristics associated with IP (Clance & Imes, 1978). Shame is another feeling positively correlated with the IP (Langford & Clance, 1993).

Gender-related research has also been studied within the context of the IP. Clance and Imes’ (1978) initial study of IP found that women tended to attribute their success to luck instead of skills. Clance and Imes’ reasoning for IP being more represented in
women was largely based on the notion of gender stereotyping being more pervasive among women than men.

The consequences of low self-efficacy in the workplace could have devastating effects on job performance (Olayiwola, 2011). In fact, significant positive correlations have been found between job performance and self-efficacy ($r = .85$) of teachers. Furthermore, of the 95% of teachers with low job performance, 90% rated themselves low in self-efficacy.

Low levels of self-esteem may be associated with IP tendencies. A construct that may also be related to IP is perfectionism (Ferrari & Thompson, 2006; Henning, Ey, & Shaw, 1998). Thompson, Foreman, and Martin (2000) found that imposters are constantly concerned with the probability of making mistakes, and often deal with greater levels of anxiety.

Kumar and Jagacinski’s (2006) research regarding imposter fears and achievement led to speculations regarding task difficulty. Analyzing imposter fears in relation to achievement, they found that imposters experience greater anxiety in situations that must showcase ones abilities. Furthermore, their research showed that imposters experience heightened fears of displaying a lack of competencies when trying to achieve goals. Finally, their research provided evidence that test anxiety and low confidence was related to imposter fears. With this evidence, imposter levels would be heightened when faced with difficult tasks.

There are not an abundant number of imposter measures, but Holmes, Kertay, Adamson, Holland, and Clance (1993) analyzed the two most common ones, the Harvey scale and the Clance Imposter Phenomenon Scale (CIPS), and found discrepancies in the
methods used to measure and determine IP. An issue Holmes et al. identified is that many measures used a median split to divide participants into high IP and low IP groups. Another issue Holmes et al. identified is the discrepant findings in early literature, which may have been due to the fact that researchers used various instruments to measure the IP construct.

**Self-handicapping**

A construct that has been closely related to the IP is the notion of self-handicapping, which involves someone partaking in behaviors detrimental to their own performance when facing evaluations. Jones and Berglas (1978) argued that individuals with high and low self-esteem are likely to engage in self-handicapping. The consequences of this behavior often result in the individual externalizing failures (blaming it on outside sources), and internalizing successes (taking credit for themselves), also known as the self-serving bias (Sheppard, Malone, & Sweeney, 2008).

There are two classifications of self-handicapping that are often reported, behavioral self-handicapping and self-reported self-handicapping. *Behavioral self-handicapping* (e.g., staying up all night before an exam) involves the active creation of a barrier before the evaluation occurs.

*Self-reported self-handicapping* is the other common classification. It often involves reporting an internal malfunction that can be used as a shield when poor performance is expected. Test anxiety, social anxiety, illness, and shyness are some of the behaviors most commonly reported.

Simek and Kobal-Grum (2011) investigated how intrinsic and extrinsic motivation differs with individuals who self-handicap. Intrinsic motivation comes from
the internal self. For example, an individual who is intrinsically motivated will want to lose weight to increase their own self-confidence. Extrinsic motivation, on the other hand, is related to being motivated by external features, such as an employee going to work only for a paycheck.

Interestingly, individuals with higher self-esteem are more likely to engage in self-handicapping than those with low self-esteem (Kim et al., 2012). Past research has shown that self-handicapping is utilized more as a tool to protect one’s self-esteem, rather than enhance it. McCrae and Flamm (2012) noted a relationship between “pre-factuals” and those who self-handicap. Individuals who self-handicap have a higher tendency to use pre-factuals than those who do not in that they are more likely to ask, “what if I do not do well on this task?”

The literature involving these phenomena that can be directly related to Industrial-Organizational (IO) psychology is sparse. One study that did directly investigate self-handicapping in the context of IO was conducted by Akin (2012) who studied self-handicapping and its relationship to burnout. Akin’s results showed that there was a positive correlation between self-handicapping and burnout.

Another related study by Spalding and Hardin (1999) performed research regarding self-handicapping and interviewees. They investigated differences between self-relevant and self-irrelevant interviews, and explicit vs. implicit self-esteem. Self-relevant interviews, as opposed to self-irrelevant interviews, involve the interviewee speaking of topics relevant to their own personal self. Explicit self-esteem is defined as a conscious evaluation of the self, whereas implicit self-esteem is an evaluation of the self that occurs spontaneously and outside of an individual’s control. Due to the self-
presentational strategies that are evoked during the interview process, Spalding and Hardin found that interviewees, who had higher levels of explicit self-esteem had a greater chance of performing self-handicapping than those with implicit self-esteem.

**Imposter Phenomenon and Self-handicapping**

Limited research has found a relationship between the imposter phenomenon and self-handicapping in the workplace. However, one area outside the workplace that has investigated the link between the imposter phenomenon and self-handicapping is parenting styles.

Langford and Clance (1993) stated that parents may view their own child as a reflection of themselves. To avoid the child possibly failing, the parent takes over the tasks that the child is responsible for. As a result, the child lacks a proper sense of his/her own abilities, and does not feel as though they deserve credit from other people, since they did not produce or achieve anything on their own.

Also related to parenting, Want and Kleitman’s (2006) study investigated the likelihood of self-handicapping and IP based on maternal and paternal care. Their results showed that imposter scored correlated positively with paternal overprotection, while self-handicapping scores correlated positively with a lack of maternal care.

Want and Kleitman’s (2006) study also explored self-handicapping and the imposter phenomenon in relation to self-confidence wide range of participants (doctors, business executives, students, etc.). Their results showed that individuals who reported high levels of IP tended to have lower accuracy, and therefore lower confidence. Want and Kleitman speculated that self-handicappers often feel as though they did not earn their success.
Outside of parenting styles, Ferrari and Thompson (2006) discovered links between imposter fears and self-handicapping when examining a sample of men and women. Their results showed that individuals with high imposter scores tend to discredit themselves, externalize successes, and not give merit to those who try to credit their accomplishments.

Based on the literature that has been presented, there may be relationships between self-handicapping and the IP. Experiences with both are likely to include self-doubt, decreased performance, a lack of self-confidence and lower self-esteem. These issues can affect multiple aspects of an individual’s life, including the workplace (Ferrari & Thompson, 2006; Spalding & Hardin, 1999; Want & Kleitman, 2006).

The Current Study

The purpose of this study was to examine if task difficulty and the imposter phenomenon effects the likelihood the self-handicap. As noted above, previous research has provided some evidence that the IP and self-handicapping are constructs that are related in multiple ways. Langford and Clance (1993) speculated that the imposter phenomenon and self-handicapping are both developed in the earlier stages of life, depending on parenting styles. Want and Kleitman (2006) posited that self-handicappers often feel as though they did not earn their successes, a notion consistently experienced by imposters. Finally, Ferrari and Thompson (2006) found that individuals who were high in imposter levels were likely to self-handicap after experiencing the failure of a task. This is similar to the strategies that self-handicappers partake in to protect their self-esteem.
Ferrari and Thompson (2006) discovered some links between IP and self-handicapping in a more applied setting. According to their results, those high in imposter levels tended to self-handicap after a perceived failure. However, when the failure was not perceived as detrimental to the individual, they were not as likely to self-handicap. Also, Khalkhali’s (2012) research provided evidence that individuals that considered a task as more difficult were more likely to self-handicap. Finally, Kumar and Jagacinski (2006) speculated that imposter behaviors are heightened in situations that an individual is faced with a difficult task. Due to the points above, the following hypotheses were developed:

_Hypothesis 1:_ The IP and self-handicapping scales will be positively related.

_Hypothesis 2:_ Task difficulty will moderate the relationship between the IP and self-handicapping such that those individuals in the high difficulty group will experience greater levels of self-handicapping across imposter groups, whereas participants in the low difficulty group will report significantly lower levels of self-handicapping across imposter groups (see Figure 1).

**Method**

**Participants**

Two hundred participants were recruited using the online survey tool Survey Gizmo. Only participants within the confines of the United States were selected for the survey. The link for the survey was included in the MTurk marketplace listing. Two quality checks were utilized throughout the administration of the scales. Furthermore, only participants with a Human Intelligence Task (HIT) Rate (The percentage of hits approved by the researcher for each participant) of at least 95% were allowed to
participate in the study. Participants were compensated $.25 for taking part in the study. Among the participants, forty-four percent were female and 55.3% were male (one person preferred not to respond). The average age of participants was 35.11 years ($SD = 12$ years). Approximately 38% were White, 4% were Black or African American, 50.7% were Asian, and the remaining 6.1% reported their race as Native Hawaiian or Pacific Islander, Hispanic or Latino, or Other.

**Materials and Measures**

**Imposter phenomenon.** Clance (1985) refined and standardized the imposter phenomenon measurement with the Clance Imposter Phenomenon Scale (CIPS). In a study of 62 participants, the CIPS resulted in only one false positive and zero false negatives (Holmes et al., 1993). The scale was found to have a level of internal consistency at .94 (Chrisman et al., 1995). For this study, the internal consistency was .90.

**Self-handicapping.** This study utilized the short-form of the self-handicapping scale. Strube (1986) made comparisons between the long and short self-handicapping scale formats and found that the shorter form had higher internal consistency than the longer form (alpha = .70).

**Task difficulty vignettes.** There were two task difficulty vignettes that were randomly assigned to participants. The vignettes portrayed either a simple or difficult task. Participants were asked to imagine this task was assigned while working at their ideal job.
Manipulation and quality checks. There was a manipulation check that asked participants to identify whether the task they were given was difficult or simple (see Appendix C). Moreover, two quality checks were administered.

Demographics. After completing the measures, participants were asked to fill out a form asking for various demographic information, including age, gender, ethnicity, work experience, and level of education (see Appendix D).

Procedure

Institutional Review Board (IRB) approval was sought through the Xavier University Institutional Review Board through the exempt process. The exempt process was most appropriate for this study because it was survey research, the responses were anonymous, it did not include any forms of deception, and it constituted minimal harm to participants.

Participants read and completed the informed consent form (see Appendix E). Next, all participants completed the CIPS. Following this scale, participants completed the general self-handicapping scale. After this scale was completed the participants were randomly assigned with one of two task difficulty scenarios (see Appendix F). Instructions were given to participants prior to reading either prompt. The prompts were based on workplace tasks that employees perceived as relatively simple (low task-difficulty), or very complex (higher task-difficulty). Immediately after the scenarios were read over and understood, participants were asked to complete the modified self-handicapping scale. After this scale was completed, participants will respond to the manipulation check, as discussed above. Following these measures, participants were
asked to provide some demographic information. Once the study was completed, the participants were given a debriefing form (see Appendix II).

**Results**

A Pearson-Product moment correlation was conducted to test Hypothesis 1, which stated that the IP and self-handicapping scales would be positively related. The results of the correlational analysis presented in Table 1 show that this hypothesis was supported. The correlation among the imposter scale and the self-handicapping scale was significant, \( r(148) = .58, p < .01 \), such that the imposter scale and the self-handicapping scale are positively correlated.

Hypothesis 2 stated that task difficulty would moderate the relationship between the IP and self-handicapping such that those individuals in the high difficulty group would experience greater levels of self-handicapping across imposter groups, whereas participants in the low difficulty group will report significantly lower levels of self-handicapping across imposter groups. A multiple regression analysis was conducted to test Hypothesis 2. This hypothesis was not supported, \( \Delta R^2(2, 145) = .01, p = .65 \). Specifically, task difficulty did not significantly moderate the relationship between IP and self-handicapping (see Figure 2).

**Discussion**

The purpose of this study was to determine if task difficulty moderated the relationship between self-handicapping and the IP. The first hypothesis proposed that self-handicapping and the IP would be positively related. Hypothesis 1 was supported, in that participants scores on the imposter scale tended to have a positive relationship with scores on the self-handicapping scales.
Those who engage in self-handicapping tend to experience self-doubt, decreased performance, and lower self-esteem. Moreover, those who suffer from the imposter phenomenon tend to also experience phenomena such as self-doubt, lowered confidence, and decreased performance. Additionally, due to not being able to accept accomplishments as their own, those who suffer from the imposter phenomenon tend to have a lowered self-esteem. The finding that the IP and self-handicapping are positively related suggests that if individuals refuse to accept their accomplishments and accolades as their own, regardless of how many they have, they are likely to perform actions detrimental to their performance prior to evaluation.

Hypothesis 2 introduced an idea that has not been thoroughly examined in the previous literature, which was the notion of task difficulty as a moderator. This hypothesis was not supported, such that task difficulty did not moderate the relationship between self-handicapping and the IP.

This finding provides evidence that task difficulty and the imposter phenomenon do not impact the likelihood of an individual to perform actions that may harm their performance. This further implies the point above that organizations should be careful in the assignment of tasks to individuals that elicit behaviors related to these phenomena.

These outcomes did not support with the research proposed by Ferrari and Thompson (2006). Their results revealed that those that who were considered high on imposter behaviors tended to self-handicap after a perceived failure. One explanation for these differing results may be due to the environment in which the participants completed their survey. Specifically, this research was conducted online, in a low risk environment, and likely did not arouse any sense of perceived failure. It is likely that participants, even
in the difficult task condition, did not sense any sort of threat to their self-esteem from the possibility of failing or not completing their task.

The imposter phenomenon may not have been as common as previously thought. In fact, the data collected in this study supports this notion. For example, the average of each participants scores on the CIPS was only a 2.83 on a 5 point scale, indicating that participants often reported scores less than sometimes in terms of feeling like an imposter. Additionally, only 4 out of the 150 participants had an average imposter score above 4.00 (often).

Theoretical and Practical Implications

The results of the current study contribute to the current research by examining the extent to which task difficulty moderated the relationship between self-handicapping and the imposter phenomenon. Past research has focused on these phenomena in relation to one another, such as Langford and Clance’s (1993) work that proposes that these constructs are developed at earlier stages in life, and Want and Kleitman’s (2006) work that proposed self-confidence had a relationship with these variables. The work in this study was unique in that it focused specifically on workplace tasks, and how task difficulty may moderate the likelihood that someone would self handicap based on how difficult the task was. Whereas self-handicapping and the IP were positively related, results revealed that task difficulty may not moderate the relationship between the two.

Perhaps the early development work proposed by Langford and Clance (1993) shows why the likelihood to self-handicap was consistent. This relationship further implies the importance of organizations to be able to identify individuals that elicit
behaviors that may have a relationship with either self-handicapping or the imposter phenomenon.

**Limitations and Future Research Suggestions**

The current study consisted of a few noteworthy limitations. First, this study recruited participants using the MTurk marketplace listing. This created some limitations of the sample in that only individuals with computer access and navigation skills were able to access the experiment.

Another potential limitation, as noted previously, are the stressed work conditions through vignettes that were designed by the researcher. Whereas the vignette is purposely designed to elicit emotions as similar to the practical work situation as possible, participants may not have reacted with the same level of emotion to these proposals as they would in an actual work conditions.

The nature of the anchors used by the self-handicapping scale is also concerning. Again, this scale consisted of 6 varying anchors ranging from *disagree very much* to *agree very much*. Because it was a six point scale, it essentially forces participants to choose one side of the self-handicapping scale.

There are also a couple future research suggestions that should be considered. First, future research could attempt to assess task difficulty while actually having participants complete real work related tasks, rather than having them imagining themselves doing so. This is due to the idea that a real sense of arousal can be created in a practical setting, rather than the hypothetical context utilized in this study.

Future research should also seek to improve the instruments used to measure the IP and self-handicapping. Multiple research studies have shown that there are greater
risks of detrimental outcomes in practical settings for individuals that experience greater levels of imposter or self-handicapping tendencies.

Conclusions

In conclusion, this study revealed two major findings. First, there is further confirmation that the IP and self-handicapping are related such that participants scores on these scales were positively related. Second, task difficulty was found to not moderate the likelihood that imposters will self-handicap. In other words, participants were shown to have similar self-handicapping levels regardless of the level of task difficulty. These findings show that, in relation to the work environment, the difficulty of a task will not effect the likelihood for an individual to self-handicap. Moreover, the early development of these phenomena reflects the difficulty to manipulate them, and shows that these behaviors may need a lot of time to change.
References


Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI). Odessa, FL: Psychological Assessment Resources.


Appendix A

Clance’s Imposter Phenomenon Scale


doi:10.1037/T11274-000
Appendix B

Self-handicapping Scale - Short Form

Appendix C

Task Difficulty Prompts

Imagine you are an employee working for an organization (consider, in this situation, that this is your ideal job) and your supervisor has just approached you with a new assignment.

**Prompt One (Low Task Difficulty)**

The supervisor at your workplace has just asked you to complete an assignment. You are instructed that it should be done by the end of the week, but it should not take much time to complete. In fact, most other individuals given this same task can complete it within a day or two. Furthermore, you are instructed that this task is rather routine and the steps should feel like second nature.

**Prompt Two (High Task Difficulty)**

The supervisor at your workplace has just asked you to complete an assignment. You are told that this must be done by the end of the next work day. You are a new employee and are still within the probationary period, and you really want to start off on the right foot. This is a complex and time consuming task (even for those who have completed it before).
Appendix D

Manipulation Check

1. Was the task given to you simple or difficult?
   
   - Simple
   
   - Difficult
Appendix E

Demographics

Please fill out the following information to the best of your ability. If you do not feel comfortable answering an item, please feel free to leave it blank.

Age- Indicate your age in the space below

__________________________

Gender-Indicate your gender by selecting the most appropriate choice below
- Male
- Female
- Prefer not to respond

Race/Ethnicity- Indicate your race/ethnicity by selecting the most appropriate choice below
- White or Caucasian
- Black or African American
- Asian
- Native Hawaiian or Other Pacific Islander
- Hispanic or Latino
- Other____________________
- Prefer not to respond

Level of Education- Indicate your level of education by selecting the most appropriate choice below
- No high school diploma
- High school diploma or equivalent
- Some college, no degree
- Associate’s degree
- Bachelor’s Degree
- Graduate Degree
- Doctoral Degree

Work Experience- Please indicate what best describes your level of work experience
- No work experience
- 0-1 year of work experience
- 1-2 years of work experience
- 2-3 years of work experience
- 3-5 years of work experience
- 5-10 years of work experience
- 10+ years of work experience
Current Employment Status- Please indicate your current employment status
- Currently employed
- Previously employed
- Tenure at current/previous job (in years)?

Please input your unique worker ID to receive payment**: ____________

**Denotes required item
Appendix F

IRB Approval Letter

October 17, 2014

Jesse Simpson
2497 Spindlehill Dr. Apt. 6
Cincinnati, OH 45230

Re: Protocol #14-025, The Effect of the Imposter Phenomenon and Task Difficulty on Self-Handicapping in the Workplace

Dear Mr. Simpson:

The IRB has reviewed the materials regarding your study, referenced above, and has determined that it meets the criteria for the Exempt from Review category under Federal Regulation 45CFR46. Your protocol is approved as exempt research, and therefore requires no further oversight by the IRB. We appreciate your thorough treatment of the issues raised and your timely response.

If you wish to modify your study, including the addition of data collection sites, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

Please contact our office if you have any questions. We wish you success with your project!

Sincerely,

Morell E. Mullins, Jr., Ph.D.
Chair, Institutional Review Board
Xavier University

MEM/stb
Appendix G

Informed Consent

You are being asked to participate in a research project conducted by Jesse Simpson at Xavier University. The purpose of this study is to examine the relationship between work performance and task difficulty.

In this study, you will fill out a questionnaire that examines imposter levels. Next, you will read two short workplace scenarios that give you an example of a workplace task, then you will fill out the self-handicapping questionnaire. You will also be asked to respond to a few demographic items. The total time to complete this task will be approximately 20 minutes, but you will be given 1 hour to complete the entire survey.

There are no known risks associated with this study, and your participation is entirely voluntary. You are free to withdraw from the study at any time without penalty. You will be paid $.25 for participating in this study. However, please note that if you do not complete all required items or if you do not pass the quality or manipulation checks, you may not be eligible for compensation. You also must be at least 18 years old to complete this study.

Although you will be required to enter your MTurk unique worker ID at the end of the survey to receive compensation if eligible, the researchers will not be able to access any identifying information you provided to Amazon or MTurk. Furthermore, the researchers will be the only individuals with access to your responses. Therefore, your responses will remain anonymous. Finally, no analyses of any kind will be conducted prior to the removal of all MTurk ID numbers from the data set.

If you have any questions at any time during the study, you may contact the principal investigator, Jesse Simpson at simpsonj3@xavier.edu or the faculty advisor, Dr. Mark Nagy at nagyms@xavier.edu Questions about your rights as a research subject should be directed to Xavier University’s Institutional Review Board at 513-745-2870.

By clicking “Next,” you agree to the following statement: I have been given sufficient information about this research study and the risks and benefits involved. I freely give my consent to participate in this research project.
Appendix I

Debriefing Form

Thank you for participating in our research project. The purpose of this study is to investigate whether imposter levels and task difficulty had any relationship with self-handicapping scores. Not giving the specific purpose of the study in the informed consent was necessary to examine the research questions of interest in this study. It was expected that participants with higher imposter levels and the difficult tasks would report higher levels of self-handicapping than those with lower imposter levels and simpler tasks.

Please do not discuss the specifics of our study with anyone or distribute this form to any potential participants, as data collection is ongoing. If you have any questions or concerns, or if you would like to inquire about the results of this study, please contact the principal investigator, Jesse Simpson at simpsonj3@xavier.edu or the faculty advisor, Dr. Mark Nagy at nagyms@xavier.edu.