

Effect of Power and Personality on Impression Management and Competitive Success

by

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Table of Contents

List of Appendices	iv
List of Tables	v
List of Figures	vi
Abstract	2
Introduction.....	3
Corporate Psychopathy and Personality	4
Positive Side of Psychopathy?	6
Impression Management	8
Power.....	10
Current Study	13
Method	18
Participants.....	18
Experimental Design	19
Experimental Procedure	20
Red Herring Task and Power Manipulation	22
Procedure for Collecting Photo Ratings	24
Measures	25
Impression Management	25
Psychopathy.....	26
Honesty-Humility	27
Game Success	27
Facial Ratings	28

Results.....	28
Analysis Overview	28
Data Preparation	28
Missing Personality Data.....	31
Random Assignment Check	32
Peer Rated Data	34
Game Success	35
Attractiveness	36
Power Manipulation	37
Hypothesis Tests.....	39
Exploratory Analyses	41
Hypothesis Tests	44
Hypothesis 1: Intimidation	44
Hypothesis 2: Ingratiation	44
Hypothesis 3: Supplication.....	45
Hypothesis 4: Game Success.....	47
Hypothesis 5: Liking and Trust	50
Exploratory Hypothesis: Self-Promotion	51
Additional Analyses	52
Discussion.....	56
Attractiveness	61
Implications	64
Procedural Strengths and Limitations	67

Future Research.....73

Conclusion.....75

References.....77

Appendices.....85

List of Appendices

Appendix A: Matching Ballot and Impression Management Measure	85
Appendix B: Red Herring Task	87
Appendix C: Visual Depiction of the Experimental Procedure.....	90
Appendix D: Additional Analysis – Power as a Categorical Variable	92
Appendix E: Additional Analysis – Psychopathy as the Personality Predictor.....	97

List of Tables

Table 1	31
Table 2	32
Table 3	33
Table 4	34
Table 5	35
Table 6	37
Table 7	37
Table 8	43
Table 9	47
Table 10	50
Table 11	51
Table 12	53
Table 13	55
Table 14	55

List of Figures

Figure 1	14
Figure 2	15
Figure 3	16
Figure 4	16
Figure 5	17
Figure 6	22
Figure 7	38
Figure 8	39
Figure 9	46

Abstract

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Evidence suggests that psychopaths are successful in business, but it has not been determined how they advance in organizations. This study examined how people use impression management to advance in a newly developed competitive experimental game when social power is manipulated. Participants (N=180) were placed in groups of three and formed a strategic match after a brief introduction. Participants reported impression management behaviours used by group members. Participants not selected for a match were eliminated from the game, and matched participants completed a cognitive task before forming new groups. All participants completed a self-report measure of honesty-humility and psychopathy. Photographs were used to rate participants on physical impressions from a group of third party raters. Interactions between honesty-humility and power were hypothesized to predict impression management behaviours and success. These hypotheses were not supported. Attractiveness was a strong predictor of success, peer ratings, self-promotion, and intimidation. Implications for corporate psychopathy in the workplace, and strengths and limitations of the new procedure are discussed.

August 23, 2017

Effect of Power and Personality on Impression Management and Competitive Success

The idea of a corporate psychopath has increased in popularity in recent empirical research, especially since Dutton (2012) identified that CEO is the profession with the highest instance of non-violent (or corporate) psychopathy. In the context of the workplace, corporate psychopaths tend to be quickly promoted to high-level positions within an organization (Babiak, Neumann, & Hare, 2010). With this power they can exercise their influence in the decision making process, despite being evaluated with poor performance and poor peer-ratings. Managers who exhibit the personality characteristics of a corporate psychopath have displayed counterproductive workplace behaviour, unethical decision making, increased instances of white collar crime and both positive and negative outcomes in leadership roles (Smith & Lilienfeld, 2013). Mathieu, Neumann, Hare, and Babiak (2014) have also found a direct negative relationship between a manager's level of corporate psychopathy and employee job satisfaction, as well as positive relationships with psychological distress, and work-family conflict for their employees.

It may not be clear to outside observers why individuals who are associated with such negative outcomes and who are met with distrust are able to rise to positions of power within organizations. And despite the numerous negative outcomes of corporate psychopathy, there are some benefits and characteristics that may be appealing to organizations. Babiak and colleagues (2010) suggested that corporate psychopaths advance because they are well versed in impression management, however, their theory has yet to be tested. This study used a laboratory experiment to further the understanding of how people with some degree of psychopathy and related personality traits use

impression management behaviours to get ahead in business. I will also examine how these impression management behaviours may differ for employees at varying levels of power within their organization. A competitive work environment was simulated with a social coalition game (modifying a task by Gilin, Maddux, Carpenter & Galinsky, 2013) and power manipulation. This experimental procedure was designed to determine whether situational power interacts with psychopathic character traits to establish which impression management behaviours are used to get ahead in work, or a competitive experimental game. Trust and liking ratings were collected for each participant in the study to account for poor peer ratings corporate psychopaths often receive as a result of their anti-social behaviours.

Corporate Psychopathy and Personality

Clinical psychopathy is characterized by glibness, lack of empathy, shallow affect, antisocial behaviour and lifestyle, manipulation, and grandiosity (Babiak et al., 2010). Psychopathy, along with Machiavellianism and Narcissism, form the Dark Triad personality traits (Paulhus & Williams, 2002). Similar to other personality traits, all individuals can have a score on the psychopathy continuum. At the extreme high end of the psychopathy spectrum is the stereotypical “social predator,” who often come from the criminal population (Book, Quinsey, & Langford, 2007). At the extreme low end of the continuum are highly altruistic individuals who engage in altruistic behaviours even at personal cost (Marsh, Stoycos, Brethel-Haurwitz, Robinson, VanMeter & Cardinale, 2014).

Paulhus and Williams (2002) determined that the three Dark Triad personality traits can be mapped onto the Big Five Inventory. A psychopath within the civilian

population (rather than the criminal or clinical population) would likely score moderately high on extraversion and openness, and low on agreeableness, conscientiousness, and neuroticism (as they have an extremely stable emotional affect). The combination of these traits indicates that psychopaths demonstrate unmitigated agency, that is, self-focus to the point of disregarding the well being of others when perusing their self-interests (Helgeson & Fritz, 2000; Paulhus & Williams, 2002). More recently, Lee and colleagues (2013) found that not only does psychopathy fit with the Big Five personality traits; it is also negatively correlated with honesty-humility from the HEXACO model of personality. Psychopathy and honesty-humility are negatively correlated with a Pearson correlation - .72 (Lee et al., 2013). Honesty-humility is characterized by fairness, honesty, sincerity, selflessness, and modesty (Lee & Ashton, 2004), and has been found to predict integrity and workplace delinquency behaviours during personnel selection (Lee, Ashton & de Vries, 2005). With such a strong connection between honesty-humility and psychopathy, honesty-humility may be used as a more endorsable, and less reactive predictor for the Dark Triad personality traits (Lee et al., 2015). In the context of the workplace, their similar outcomes suggest honesty-humility has similar implications as corporate psychopathy (Lee et al., 2015). Measuring honesty-humility can be advantageous over psychopathy measures in non-clinical studies because psychopathy scales transparently measure socially undesirable traits such as criminal tendencies (Mahmut, Menictas, Stevenson & Homewood, 2011) and honesty-humility may be less susceptible to faking good.

Similar to clinical psychopathy, corporate psychopathy is characterized by lack of empathy and remorse, manipulation, exploitation, deception, charming demeanor, and

impulsive behavior (Babiak et al., 2010). Babiak and colleagues (2010) found that psychopathy had a prevalence of 5.9% in their corporate sample, which is quite high compared to a psychopathy prevalence of 1.2% in a large community sample (McArthur as cited in Babiak et al, 2010). When comparing these two samples, Babiak and colleagues (2010) did not find significant differences among the participants with respect to demographic information (age, gender, race). They also found in their corporate sample, 77% of participants who were classified as corporate psychopaths held a managerial or executive position despite receiving poor 360° performance evaluations. Someone who is high in corporate psychopathy, or low in honesty-humility, can be problematic when they hold a leadership position within organizations. Employees reported high intent to turnover, and job neglect, as well as low job satisfaction when they had a direct supervisor who scored high on corporate psychopathy (Mathieu & Babiak, 2015). Managers who are high on corporate psychopathy not only contribute to negative job attitudes in their employees, but they have also been found to be selfish and unfair during negotiation tasks, and more likely to give new acquaintances negative evaluations in their workplace (ten Brinke, Black, Porter & Carney, 2015; Black, Woodworth & Porter, 2014).

Positive Side of Psychopathy?

Although high levels of psychopathy and corporate psychopathy can be detrimental to the organization, mild levels of psychopathy are associated with abilities that can be beneficial (Book, Costello & Camilleri, 2013; Dutton, 2012; Pizarro & Bartles, 2011). Individuals with mild psychopathic traits have the uncanny ability to understand others' emotions and feelings, without empathizing with that person (Pizarro

& Bartles, 2011). This allows them to read others' emotions and feelings while maintaining a cool disposition themselves. Book and colleagues (2013) decided to study this phenomenon after hearing that an infamous serial killer and psychopath claimed, "he could tell his next victim by the way she walked down the street..." (as cited in Homes & Holmes, 2009, p. 221). Book and colleagues (2013) showed video footage of men and women walking down a hall to a sample of violent offenders at a maximum-security prison. The targets in the videos were asked if they have ever been victimized, and how many times they felt they had been victimized. After the prison inmates were shown the video footage of participants walking, they were asked to judge how vulnerable each target was to victimization. The researchers found that the interpersonal, or affective, psychopathy factor was positively correlated with accurate predictions of victim vulnerability ($r = .47, p < .01$; Book et al., 2013). Similar findings have been replicated using an undergraduate sample, where those who scored higher on psychopathy were better predictors of victim vulnerability, but not to the same degree of accuracy as the incarcerated population (Wheeler, Book & Costello, 2009). This ability to read and understand others may serve as an advantage in business and politics, where we see a higher concentration of corporate psychopaths (Dutton, 2012).

Organizations may benefit from having employees and leaders with some degree of psychopathy. Bartles and Pizarro (2011) found that in an undergraduate sample, participants who scored high on psychopathy chose more utilitarian options when presented with a moral dilemma. Many of the moral dilemmas given to the participants required them to decide if they would sacrifice one person to save many. Those who scored higher on psychopathy were more likely to agree to save many at the expense of

one person. Although this is an extreme example, there are implications for the workplace. Leaders of large companies and organizations often need to make utilitarian decisions that will benefit the bottom line. Cost effective decisions would likely come more naturally to leaders with higher degrees of psychopathy, and would be a desirable quality in an executive or CEO.

Impression Management

A possible explanation for the success of corporate psychopaths in business is the use of impression management (Babiak et al., 2010). Impression management is a person's effort to alter or create an image of oneself to an audience, and to maintain or establish power in circumstances where there are limited resources (Bolino, Kacmar, Turnley, & Gilstrap, 2008; Kacmar & Baron, 1999). Being able to present oneself favorably in the eyes of others, could explain why corporate psychopaths earn promotions without performance. This theory has been supported by Pardue, Robinson and Arrigo (2013), who determined that impression management, manipulation, and deception are commonly used tools in a psychopath's arsenal. Jones and Pittman (1982) established a five-factor model of impression management that includes ingratiation (using flattery, favors, and agreeing with opinions to be seen as likeable), self-promotion (exaggerating accomplishments to be seen as competent), exemplification (going above and beyond expectations to appear dedicated), intimidation (appearing powerful or threatening to appear dangerous), and supplication (displaying weaknesses to be seen as needy).

Recently, Bourdage, Wiltshire and Lee (2014) found that personality, specifically low honesty-humility combined with other HEXACO personality traits, can determine the impression management behaviour an employee may use in the workplace. In their study,

honesty-humility was negatively correlated with all five impression management behaviours when they used a student, and working sample. An implication of this study was similar to that of Babiak and colleagues (2010); if low honesty-humility is an underlying trait for impression management behaviour, employees with low honesty-humility may use impression management to get ahead in their careers. Impression management is highly effective during job interviews when candidates' personality is judged based on a short interaction (Barrick, Shaffer & DeGrassi, 2009). This means organizations are often susceptible to hiring employees low in honesty-humility, who are more likely to use impression management. Roulin, Bangerter and Levashina (2015) found that both novice and experienced interviewers were only able to detect dishonest impression management 13.2% of the time. However, impression management does not stop after the hiring process. Impression management can also be highly effective during performance evaluations, where employees may exaggerate or favorably present their accomplishments for the year. This practice can often result in positive performance evaluations for mediocre or subpar performers (Barrick et al., 2009).

If a corporate psychopath is well versed in impression management, they could potentially utilize different impression management tactics depending on to whom they are presenting themselves. There is some evidence that certain impression management behaviours are more effective than others when you are presenting yourself to a superior versus a peer (Crawshaw, 2011; Pandey & Singh, 2001). These findings suggest that as a corporate psychopath rises through the ranks of an organization, they may adopt different impression management behaviours based on their social power.

Power

Power is a main motivator behind the actions of corporate psychopaths and employees with low honesty-humility. Power can be defined in terms of a person's maximum potential to influence others (French & Raven, 1959). Using this definition, French and Raven (1959) outlined five bases of social power that are still relevant to workplaces today: reward power (based on the ability to reward), coercive power (based on the threat of punishment), legitimate power (based on established culture and values), referent power (based on being a member of a desirable group), and expert power (based on relative knowledge). Psychopathy has been used to predict one's desire for power (Lee et al., 2013), however it is unclear what kind of power they desire, or if they inherently possess greater social power.

Lee and colleagues (2013) found that Dark Triad personality traits and low honesty-humility had the strongest correlations with a desire for power over other personality traits. They suggest the characteristic of low honesty-humility is the person's willingness to receive gains and social status at the expense of others. When personality is controlled, having high situational power increases status achievement, assertive behaviour in cooperative tasks, attempts to obstruct others' goal achievement, and leads to shorter-lived social coalitions in competitive work environments (Kilduff & Galinsky, 2013; Mannix, 1993; Tjosvold, Johnson & Johnson, 1984).

Although impression management may help employees reach positions of power, there is evidence to suggest the effectiveness of impression management is dependent on the audience's level of power. For example, when impression management and other political behaviours are used in the workplace, they are generally viewed negatively from

more honest peers (Crawshaw, 2011). This is not necessarily the case when it comes to supervisors. An experimental study conducted by Pandey and Singh (2001) found that ingratiation was an effective impression management behaviour for employees to use on a supervisor with higher power. Ingratiation lead to the employee having greater influence, and being better liked by their supervisor. But when the target of ingratiation was a peer, they were less likely to receive help or exert influence. These outcomes can also be seen during the selection process. As mentioned earlier, impression management behaviours can be used effectively during interviews and performance appraisals, when employees are often meeting one-on-one with a hiring manager or direct supervisor (Barrick et al., 2009).

A study by Friedlander and Schwartz (1985) sought to determine which impression management behaviours are most frequently used in clinical therapy sessions where there is a power divide between the patient and therapist. They proposed that patients would use different impression management behaviour based on the amount of power or resources they perceived they had in the relationship with their therapist. Ingratiation was the most commonly used strategy when patients first met their therapist because they were in a position of low power and wanted to be liked. Supplication was also frequently used in positions of low power, but unlike ingratiation, it was often used as a last resort since it exploits one's own weaknesses and relies on evoking feelings of protection. Self-promotion was often used where claims regarding a person's ability would not readily be tested. This behaviour was seen in people who wished to appear ambivalent about receiving or needing help. The final relevant behaviour in the Friedlander and Schwartz (1985) study was intimidation. This impression management

behaviour was used when a person was trying to obtain or demonstrate their power.

People with high power or status often use intimidation, but those in low power positions may attempt to gain status or resources by using threats.

Power should not be confused with status in the context of this study. In a face-to-face group interaction, status is how others view an individual's prominence, respect, and influence (Anderson & Kilduff, 2009). Status is a more visible or displayed characteristic than power, and is dependent on group members being aware of one's assets. To make the distinction between power and status in the current study, the power condition will be kept blind from other participants. If a participant's power condition was on display or widely known by other participants, the manipulation would in fact be controlling status. Keeping power blind will also require participants to advocate for themselves and disclose their expert knowledge similar to working with new team members in an organization.

Adapting which impression management behaviours are used based on one's social power, as well as the level of power of their audience, could be the key to understanding how corporate psychopaths are able to rise within their organization. Although there is evidence that peers and supervisors respond differently to impression management behaviour, there has not yet been a study that looks at how an individual's social power affects which impression management behaviour they use from the five-factor model of impression management (Jones & Pittman, 1982). This power research may explain why corporate psychopaths receive poor ratings from co-workers as peers negatively receive impression management behaviours (Crawshaw, 2011). Managers with greater power react more favorably to impression management behaviour (Pandey &

Singh, 2001), which could provide insight on how corporate psychopaths are given promotions and are able to get ahead in their career.

Current Study

Most research done on impression management, power and personality has been correlational, and there has been very little experimental research done on the impact of power on impression management to manipulate others. My objective was to test how individuals use impression management to manipulate others and succeed in a competitive environment with high, medium and low levels of expert power. Expert power was manipulated to simulate workplace power. Lamertz and Aquino (2004) suggest that managers have greater formal power, which encompasses French and Raven's (1959) legitimate and expert social power. Using student peers means that there was no existing legitimate power across participants, so expert power was manipulated to increase formal power similar to the workplace. I created a competitive experimental game where participants have the opportunity to use impression management to advance ahead of their peers. The objective of this study is to provide insight into how honesty-humility contributes to a person getting ahead in their career, and how their peers perceive their behaviour. I developed the hypotheses for this study by drawing on psychopathy and honesty-humility literature. Based on the findings of Friedlander and Schwartz (1985), I hypothesize that the correlation between honesty-humility and the frequency of each impression management behaviour will be dependent on the individual's situational power.

Hypothesis 1: The use of intimidation will be the highest in participants with low honesty-humility and high situational power, and the lowest in those with high honesty-

humility and low power. Friedlander and Schwartz (1985) suggest that in some cases, a person in low power will use intimidation. Therefore participants with low honesty-humility and low power will likely use intimidation more than participants in the medium power condition. These outcomes will result in an interaction between power and score on honesty-humility with a main effect of honesty-humility, and power. A visual representation of this hypothesis is presented in Figure 1.

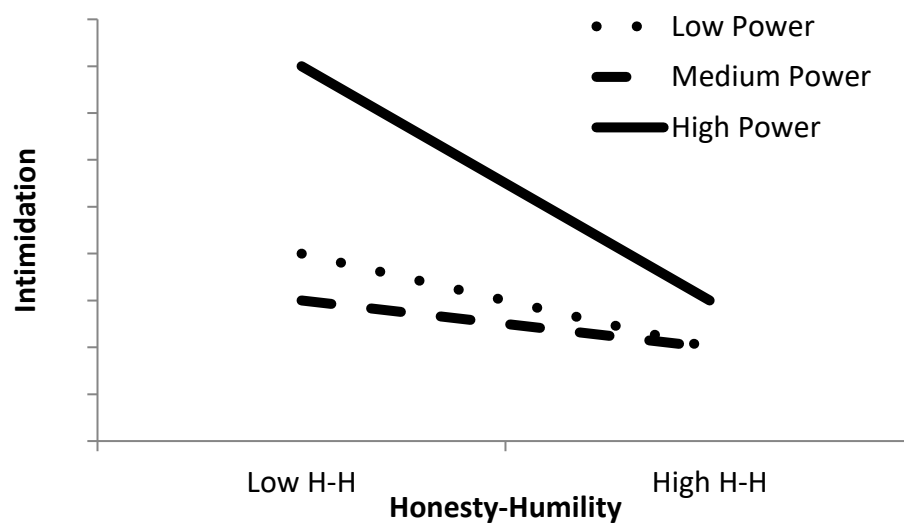


Figure 1. Expected interaction of honesty-humility and power in Hypothesis 1 predicting intimidation behaviour.

Hypothesis 2: For participants in the high power condition, there should be a very minimal amount of ingratiation being used regardless of honesty-humility score. Those in the low power condition should demonstrate the highest frequency of ingratiation, with low honesty-humility participants using ingratiation the most. A similar negative relationship between ingratiation and honesty-humility should be seen in the medium power condition, but with overall lower frequencies of the behaviour resulting in an interaction between power and honesty-humility (Figure 2).

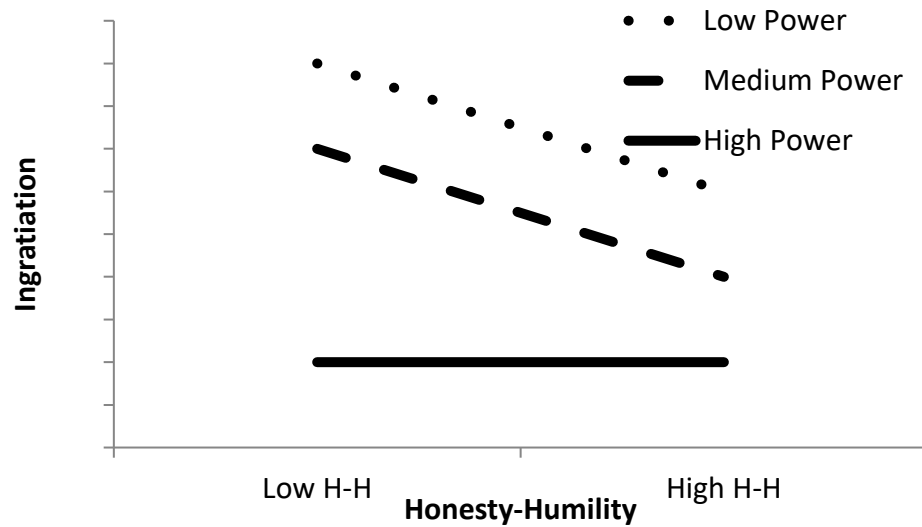


Figure 2. Expected interaction of honesty-humility and power in Hypothesis 2 predicting ingratiation behaviour.

Hypothesis 3: Supplication will have a similar relationship as ingratiation, but with a greater difference between high and low honesty-humility participants in the low power condition. High power participants should not display any supplication since they do not need to appear helpless, and medium power participants will fall in between those in the high and low power conditions. This should reveal an interaction between power and honesty-humility (Figure 3).

Hypothesis 4: In terms of advancement, within each power condition participants with low honesty-humility will advance further in the experimental game than those with high honesty-humility. Participants with high power should advance further than participants with medium power, who will advance further than those with low power (Figure 4).

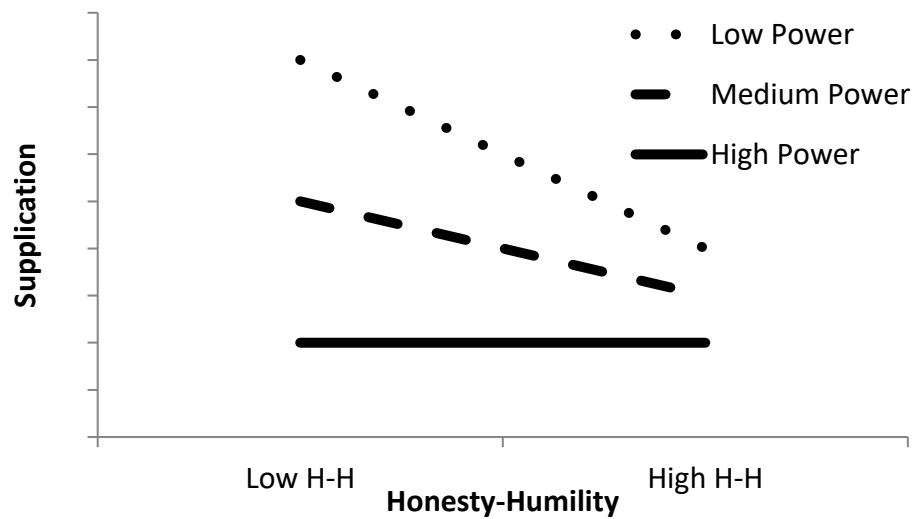


Figure 3. Expected interaction of honesty-humility and power in Hypothesis 3 predicting supplication behaviour.

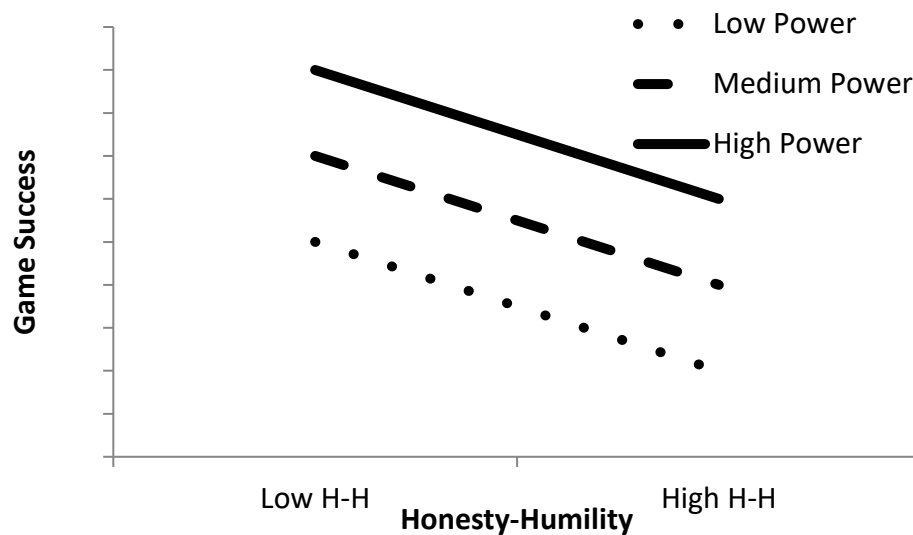


Figure 4. Expected relationship of honesty-humility and power in Hypothesis 4 predicting game success.

Hypothesis 5: Babiak and colleagues (2010) found that corporate psychopaths are disliked by their peers because they are quick to use manipulation, such as impression management. Individuals with high honesty-humility should be given favourable peer

ratings as they use impression management behaviours where the goal is to be liked rather than to manipulate others (Bourdage et al., 2014; Lee & Ashton, 2004). These findings should be replicated in the current study; low honesty-humility will be associated with greater dislike (*Hypothesis 5a*). An experimental study by Thielmann and Hilbig (2015) demonstrated that a person with high honesty-humility is perceived as more trustworthy to others. The current study should validate these findings. Participants with low honesty-humility will receive lower ratings of trust from their peers (*Hypothesis 5b*; Figure 5).

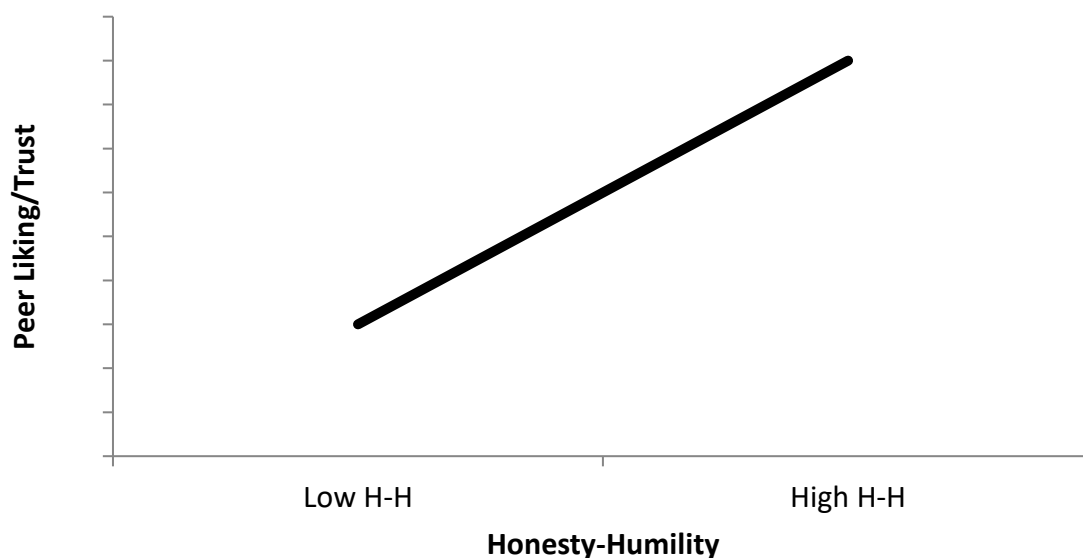


Figure 5. Expected relationship of honesty-humility in Hypothesis 5 predicting peer ratings of liking and trust.

The use of self-promotion was explored since participants may use self-promotion when they are in the high or low power condition (Frielander & Schwartz, 1985). Bourdage and colleagues (2014) demonstrated that of the HEXACO personality traits, self-promotion has the strongest relationships with honesty-humility and extraversion,

however, the current literature is unclear about the presence of an interaction between honesty-humility and power. Exemplification was the only behaviour from Jones and Pittman's (1982) five-factor model that was not examined in the current study. The experimental method does not foster exemplification behaviour in the same manner as the other impression management behaviours in Jones and Pittman's (1982) model.

Exemplification is applicable to situations where employees can demonstrate going above and beyond expectations; however, similar to the Friedlander and Schwartz (1985) study, the experimental method used in this study does not provide the opportunity for participants to go above and beyond.

This was the first study to directly observed the use of impression management behaviour at different levels of situational power; and how an employee with low honesty-humility may use impression management behaviour to manipulate others and advance in their careers.

Method

Participants

Participants in this study were undergraduate university students at Saint Mary's University. Over the course of six months, 13 experimental sessions were conducted with 329 individual participants. Participants were recruited by contacting psychology and business professors at Saint Mary's University to request they give their students the opportunity to participate in my study on a lecture day when they were not be able to teach, or on a spare day scheduled in their syllabus. Any student in that class who consented to participate in the study was compensated with a bonus mark in the course and the winners of the experimental game were rewarded with a \$10 Tim Hortons gift

card. After the study was complete, the class was debriefed with a short presentation on how the study related to their course material. Of the 13 experimental sessions, five were removed from the sample due to procedural errors (which will be discussed in the Results section) and 180 participants were used in the analysis. The average age of the sample was 21.78 years ($SD = 3.409$), 99 of the participants were female, 78 were male, and 3 identified their gender as being other.

Experimental Design

This lab-based experiment looked at the interactive effects of personality (honesty-humility) and a randomly assigned manipulated variable: situational power. Participants were placed into groups of three and instructed to choose one person they would like to continue working with. If two participants selected each other, they matched and would continue in the game. Any participants who did not match were eliminated and sent to a consolation round. This was meant to simulate forming partnerships and social coalitions in the workplace. Following a match, participants worked with their partner to complete a cognitive task (the Red Herring task), which served as a consequence of forming a strategic match. Expert power was manipulated by creating three power conditions (high, medium, and low power). Participants were provided with of clues with different degrees of information that would help them complete the Red Herring task faster. The experimental game consisted of multiple rounds where participants would be eliminated if they were not selected for a match, until there were two winners similar to a tournament.

I developed the experimental game based on the social coalition matching game created by Gilin, Maddux, Carpenter, and Galinsky (2013), where participants chose to

enter a social coalition with one of two potential partners following a very brief introduction. In the current study, all participants were informed that the objective of the game was to match with a member of their triad to advance and be successful in the game. By telling the participants the final objective of the game, I hoped to encourage them to use impression management behaviours, and any other means necessary, to strategically match with other participants to advance.

Experimental Procedure

Students entered the classroom and were provided with an informed consent form. Once they had read and signed the consent form, they were given an alpha numeric ID on a sticker (i.e. D-264) and an envelope containing a brief description of their power condition. Participants then had their photo taken with their ID sticker on their shirt, to collect photo ratings following the experimental sessions. When all participants had their appropriate materials and photos taken, they were given instructions for the game as a group. These instructions included an overview of the game's steps, an explanation of what it means to match with a person, an example of the matching ballot (Appendix A), instructions and an example of the Red Herring task (Appendix B), examples of each clue in the Red Herring task (the power manipulation), and the tournament format (Appendix C). The procedure was summarized in eight steps to the participants:

1. Read your "Power Description" in the envelope you were provided.
2. Get into groups of 3 based on the letter in your ID.
3. Chat with your group members for 2 minutes to decide whom you will pick to match with.
4. Fill out matching ballot (one side for each group member).

5. The research team will collect your matching ballot and announce who has matched
6. With your matched partner, complete the Red Herring task
7. Get into new groups of 3
8. Repeat steps 3-7.

Following the instructions, participants formed their initial groups based on the letter on their ID stickers. They were given approximately 2 minutes to talk and interact with their group members to decide with whom they wanted to match and continue to work with. Examples of what they might talk about during this time included what skills they possessed, what clue they had, and if they would work well with each other. The research team distributed the matching ballots and participants completed them independently of their group members. Once the matching ballots were completed in full, the research team collected them and determined which participants matched and which participants would be placed into the consolation round. The matched pairs were moved to one side of the room to begin the Red Herring task. The participants who did not match gathered on the other side of the room and were placed into new groups of three to begin the consolation rounds following the same procedure.

The Red Herring task required the research team to distribute game boards, game cards, and clues based on the participants power condition, as indicated in their ID number. All matched pairs began the Red Herring task at the same time, and the research team checked if they completed the puzzle correctly. Once all groups completed the game, the materials were collected, and participants were placed into new groups of three separate from the participants in the consolation round. The new groups of three began the procedure again by talking and interacting for 2 minutes to decide whom they wanted

to match with in the second round. The game continued in this fashion until there were two groups remaining, and the \$10 prize was given to the matched pair who completed the Red Herring task faster (Figure 6). The consolation round followed the same procedure, using only participants who did not match in the first round of the game.

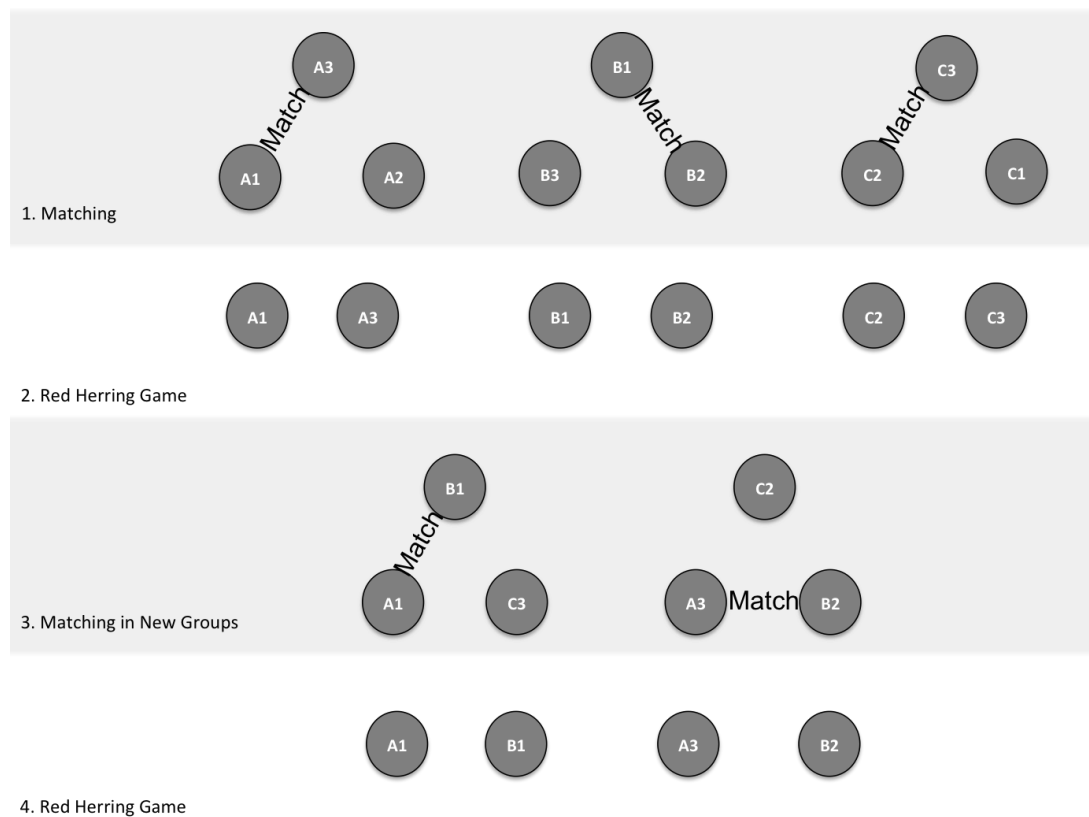


Figure 6. A simple visual representation of how participants would advance in the experimental game.

Red Herring Task and Power Manipulation. The Red Herring task is a word-categorizing puzzle where participants group 12 words into three categories without being misled by a group of four “Red Herring” words. These Red Herring words do not have a connecting theme and are meant to mislead the participants. Detailed instructions and examples of the Red Herring task are included in Appendix B.

Expert power was manipulated in this study by providing participants with clues to the Red Herring task. Participants in the high power condition were given a category clue, which would tell them one of the three categories they had to sort the words into. The high power participants had the highest expert power because this clue gave them information that made the puzzle easier to solve. The participants in the medium power condition were given a word-pairing clue, which indicated two words that belonged to the same category. This type of clue also increased a participant's expert power, but not to the same degree as the high power clue. Participants in the low power condition were not provided with a clue, and therefore had the lowest expert power in the game.

The power conditions were randomly assigned to each group member in the first round of the game, and participants held the same power condition through the following rounds (they would always be given a category clue, word-pairing clue, or no clue). At the beginning of the game, all participants received an envelope with a description of their power condition, which said, "In each round of the game, you are going to be given a *[category/word pairing/no]* clue. It is up to you whether you want to share this information with other participant in the game." In the first round of the game, the power conditions were balanced in the groups; each group had one participant in the low power condition, one in the medium power condition, and one participant in the high power condition. At the beginning of round two when participants were organized into new groups, they no longer had a balance of power conditions among the participants. Students were instructed to get into new groups without anyone from their previous group(s), meaning they could form a group with two medium power participants and one high power participant.

Power conditions were kept blind to give participants the opportunity to lie about the clue they received, which would be advantageous to individuals with low honesty-humility. The blind power manipulation was also intended to simulate a workplace where you need to voluntarily share your skills and knowledge with your co-workers and advocate for yourself. The three levels of power (high, medium, and low) were chosen for this experiment to create an equal continuum across the three group members in each round and gave me greater explanatory power when I was exploring the research question. The effectiveness of this new procedure and implications of the results will be outlined in the Discussion section.

Procedure for collecting photo ratings: Since this task consisted of in-person social interactions, I felt it was important to include a control for attractiveness. Numerous studies have demonstrated that people perceive a person more favorably if they are physically attractive, and less favorably if they are physically unattractive (Dion, 1972; Furnham & Swami, 2012; Griffin & Langlois, 2006; Segal-Caspi, Roccas, Sagiv, 2012). These views towards attractive individuals are also present in the workplace, with attractive people being more likely to get hired and perceived as competent and successful (Marlowe, Schneider & Nelson, 1996; Rule & Ambady, 2009).

All participants agreed to have their photograph taken to collect peer ratings by third party raters after the sessions were complete. Participants were not given instructions to smile or make a specific facial expression, and when asked if they were supposed to smile, they were told, “you can do whatever you like.” The photographs were all taken in front of a neutral backdrop, and contained only the participant’s face and identification number on their upper chest.

Photo raters were recruited in the same manner as the experimental participants, by contacting their professors to recruit full classes of students after the experimental sessions were complete. Two groups of raters completed the survey on the same day ($N = 20$, $N = 17$). Raters were provided with a temporary login on university lab computers and instructed to go to a secure online survey. All raters were instructed to respect the privacy and dignity of the photographed participants by not talking or discussing their responses during the rating process, or after they left the lab. Temporary logins were used to ensure no images could be saved or copied onto their personal accounts or accessed after the survey was complete. The research team monitored the room for any raters using their phones, or accessing social media during the survey. The 183 photographs were evenly split ($N=92$, $N=93$) between two surveys to accommodate time restraints on the raters' participation. The survey the raters received was randomly assigned within the sessions. Each survey presented the raters with the participant's photograph, an eight-item facial judgment scale, and an option not to respond if they knew the individual in the photograph.

Measures

In addition to assessing impression management behaviours, participants' game success, facial impression, and personality were measured.

Impression Management. Participants reported the impression management behaviours that were used by their two groups members in a questionnaire based on Bolino and Turnley's 22-item impression management scale (1999). This scale was developed using Jones and Pittman's five factor model of impression management (1982). The scale included four to five items for each subscale measuring the impression

management behaviours. Chronbach's alpha for the five subscales ranged from .78 (self-promotion) to .88 (supplication), thus was an acceptable measure of impression management behaviour for this study (Bolino & Turnley, 1999). An example of an item from this scale is "compliment your colleagues so they will see you as likeable." Each item was rated on a five-point scale to indicate the extent to which each group member used this behaviour, from 1 (never behaved this way) to 5 (often behaved this way). Items were adapted to the context of this study (e.g. by replacing "colleague" with "group member" and changing the items to past tense). In this study's sample, the Chronbach's alpha for the impression management subscales ranged from .89 (self-promotion) to .691 (intimidation). This scale was included in the matching ballot, which can be found in Appendix A.

Psychopathy. Two personality scales were used to measure psychopathy, and honesty-humility. The Self-Report Psychopathy Scale (SRP III; Paulhus, Neumann, & Hare, in press) is a 34-item scale that measures four dimensions of psychopathy (callous affect, erratic lifestyle, interpersonal manipulation, and criminal tendencies) on a five-point likert scale. Items on the SRP III scale include "I think I could 'beat' a lie detector" and "I am not afraid to step on others to get what I want." The SRP III has been found to have a combined internal consistency coefficient of .86 in a non-clinical sample (Mahmut et al., 2011) and .88 in the current sample. The maximum possible score on this scale is 170, and the minimum score is 34.

The prevalence of psychopathy in Babiak and colleague's (2010) corporate sample was 5.9%. This study used an undergraduate sample so the prevalence of psychopathy was anticipated to be lower than 5.9%. The current sample included five

participants who had a psychopathy score two standard deviations above the mean, indicating 2.7% of the participants had an extreme psychopathy score. To compensate for low psychopathy prevalence, honesty-humility was used in conjunction with measures of psychopathy. Honesty-humility has demonstrated the same pattern of outcomes as psychopathy in past research. It is also a more endorsable personality trait measured with less transparent items. By using a more reactive measure such as honesty-humility in the analysis, I hoped to capture a greater variance in my sample. Psychopathy was measured to validate this assumption and as an exploratory variable if honesty-humility did not produce the expected outcome.

Honesty-Humility. Honesty-humility was measured with a subscale from the HEXACO personality inventory (Ashton & Lee, 2009). The 16-item honesty-humility subscale measured four facets: sincerity, fairness, greed avoidance, and modesty. Participants rated the extent to which they agreed with each statement on a 5-point likert scale. Items include “I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed,” and “I wouldn't pretend to like someone just to get that person to do favors for me.” The honesty-humility subscale has been found to have an internal consistency coefficient of .92 in student samples (Lee & Ashton, 2004), and had a Chronbach's alpha of .80 in the current sample. Scores on this honesty-humility scale can range from 16 to 80.

Game Success. Participant's game success was measured by the number times a group member selected them for a match, divided by the number of group members they had throughout the game. Since each experimental session had a different number of participants, there were different numbers of rounds that could be completed. This

method produced a percent score ranging from 0 to 1. If a participant was never selected for a match, their success score was 0. If a participant was selected for a match by 3 of their 4 total group members, they would have a success score of .75. Other measures included the peer ratings of trust and liking, which were collected as simple Likert ratings that asked the extent to which a person likes and trusts members of their group on a scale of 1 (not at all) to 7 (very much). These ratings were collected on the matching ballot along with the impression management scales (Appendix A).

Facial Ratings. Participant's photographs were rated using the facial judgment scale. The facial judgment scale included five physical impression items the raters were asked to assess based on the participant's physical appearance in their photograph. Examples of these items are: "This person is attractive," "this person is competent," "this person is trustworthy." There were three emotional impression items including "this person is happy," "this person is sad," and "this person is angry." Each item used a seven-point Likert scale, where 1 = strongly disagree, 7 = strongly agree.

Results

Analysis Overview

Data cleaning and preparation was conducted using IBM SPSS Statistics, version 24 (IBM SPSS Statistics for Apple, 2016), Excel (Microsoft Excel for Mac, 2011), and R Studio (R Core Team, 2017). Missing data analyses, scale calculations, reliability and descriptive statistics were calculated in SPSS and Excel, and the main analyses to test the hypotheses were conducted using R.

Data preparation. The data was prepared for analysis by first removing any experimental sessions that could not be used. Over the course of 13 experimental

sessions, data was collected from 323 participants. 180 participants were used from eight of those sessions. The average age of the sample was 21.78 years ($SD = 3.409$), 55% of the participants were female, 43% were male, and 2% identified their gender as other.

This was a newly devised procedure that added a tournament structure and the cognitive Red Herring task to the social coalition game (Gilin et al., 2013). I conducted additional experimental session to allow me to perform extensive pilot testing, and to ensure the method was fully valid before the data was considered usable in the analysis. My power analysis indicated the minimum number of participants required for my analysis was 105, which I exceeded despite removing pilot sessions. The five experimental sessions that were excluded from the analysis were removed due to problems with missing data, and the procedure not being followed correctly. The first two sessions used an online survey to collect honesty-humility and psychopathy measures; however, responses to the online survey were low following the in-class procedure. As a result, a paper and pencil version of the survey was used in subsequent sessions, which decreased the number of missing responses. Unfortunately, I made an error the first time this paper and pencil survey was distributed in session three, and it was missing the extraversion scale, so this data was removed from the analysis. The error was corrected, and the remaining sessions had all the desired scales included in the survey. Since the first two sessions were the research assistant's first exposure to the procedure, there was some confusion in terms of executing the procedure clearly and efficiently. This resulted in some participants having difficulty understanding the procedure, particularly what they should be talking about during their two minutes to discuss whom to match with. There were also some errors in distributing the appropriate clues to participants during the Red

Herring task. One session was removed from the analysis because there were too few people in the class to conduct the experiment properly, but the session was nonetheless conducted to ensure the students received their bonus mark for participating. The ninth session was removed because two participants had been in a class that participated as a pilot study the previous year, and had already been exposed to the experimental procedure. Their previous participation may have influenced their behaviour and the behaviour of the other participants. Table 1 contains additional details on each experimental session, such as sample size and the reason a session was excluded from the analysis. These excluded sessions contained three of the larger classes that participated in the study, resulting in 44% of the data being excluded from the analysis. Implications of this missingness are included in the discussion section.

Table 1

Session sample size and justification for excluded sessions

Session Number	N	Included?	Justification for Exclusion
1	45	No	10 missing online personality surveys, some procedural errors
2	45	No	14 missing online personality surveys, some procedural errors
3	36	No	Missing extraversion scale for all participants after switching to paper survey, 3 missing personality surveys
4	8	No	Not enough participants to complete procedure
5	45	Yes	-
6	12	Yes	-
7	21	Yes	-
8	9	No	2 participants were present for pilot study in previous year
9	27	Yes	-
10	36	Yes	-
11	24	Yes	-
12	9	Yes	-
13	12	Yes	-
Total	329		

Missing Personality Data. Honesty-humility scores were the sum of the self-reported HEXACO subscale, and centered using grand mean centering. Little's MCAR test revealed that missing values for the personality scales were missing completely at random, $X^2(1461) = 1389.739, p = .908$. Since the personality data was found to be missing completely at random (did not display any pattern of missingness related to any measured or unmeasured variable) mean substitution was used to account for missing items. Descriptive statistics for all personality scales and subscales can be found in Table 2, and correlations between personality subscales can be found in Table 3.

Table 2

Descriptive statistics for personality scales

Scale	α	M	SD	Min	Max
Psychopathy	0.880	74.905	15.231	38.000	125.000
Callous Affect	0.713	15.991	4.035	8.000	27.000
Erratic Lifestyle	0.778	22.737	5.655	10.000	35.000
Interpersonal Manipulation	0.734	20.547	5.238	8.000	33.000
Criminal Tendencies	0.799	15.630	5.260	10.000	40.000
Honesty Humility	0.802	51.526	8.961	21.000	73.000
Sincerity	0.478	12.502	2.824	6.000	20.000
Fairness	0.677	12.996	3.507	4.000	20.000
Greed Avoidance	0.785	11.293	3.422	4.000	20.000
Modesty	0.692	14.734	2.866	7.000	20.000
Extraversion	0.894	13.528	4.238	4.000	20.000

Note: $N = 183$. All personality scales were measured on a 5-point Likert scale

Random assignment check. Power condition was a randomly assigned variable, and to check the random assignment of these groups was effective, a one-way ANOVA comparing the power conditions was conducted. Power condition served as the factor, and the predictors were variables from the primary analysis (attractiveness, honesty-humility, psychopathy) were the dependent variables in the check. Results are presented in Table 4. There were no significant differences found across power conditions with respect to the predictor variables. This suggests that the power conditions were in fact randomly assigned to the participants in this study.

Table 3

Correlations between personality subscales

Variable	1	2	3	4	5	6	7	8	9	10
1. Psychopathy										
2. Callous Affect	.689**									
3. Erratic Lifestyle	.794**	.334**								
4. Interpersonal Manipulation	.805**	.516**	.555**							
5. Criminal Tendencies	.691**	.357**	.397**	.327**						
6. Honesty-Humility										
7. Sincerity	-.542**	-.458**	-.320**	-.476**	-.408**					
8. Fairness	-.340**	-.326**	-0.122	-.308**	-.336**	.681**				
9. Greed Avoidance	-.596**	-.456**	-.411**	-.441**	-.489**	.758**	.343**			
10. Modesty	-.212**	-0.129	-.146*	-.206**	-0.131	.724**	.311**	.403**		
11. Extraversion	-.377**	-.398**	-.204**	-.400**	-.190*	.663**	.354**	.327**	.272**	
	.157*	0.005	.294**	0.103	0.020	-0.003	0.003	0.033	-0.063	0.021

Note: $N = 182$, ** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed)

Table 4

Analysis of variance to test the random assignment of power conditions

<i>Source</i>	<i>SS</i>	<i>SS_{error}</i>	<i>df</i>	<i>df_{error}</i>	<i>F</i>
Attractiveness	3.081	113.177	2	182	2.477
Honesty-Humility	50.663	14482.051	2	179	.313
Psychopathy	203.976	41783.221	2	179	.437

Note. * $p < .05$.

Peer Rated Data. Participants were given an average score for liking, trust, and the four impression management behaviours (self-promotion, ingratiation, intimidation, and supplication) they used during the experiment. These scores were calculated from the ratings of other participants across all rounds of the game. Self-promotion ($M = 3.004$, $SD = .749$) and ingratiation ($M = 2.464$, $SD = .658$) were the highest reported impression management behaviours. Supplication ($M = 1.574$, $SD = .505$) and intimidation ($M = 1.553$, $SD = .520$) were the lowest reported behaviours in the experimental sessions, all of which were measured on a five-point Likert scale.

One-way random intraclass correlations ($ICC_{1,6}$) were calculated in SPSS for each of these peer reported variables and can be found in Table 5. The intraclass correlations indicate the degree of agreement between the raters and were calculated using the raters' scores from first three rounds of the game (there were not enough participants in sessions that completed four rounds of the game). These intraclass correlations indicate the agreement across different raters when the scores are averaged (Shrout & Fleiss, 1979). The intraclass correlations were all significant and ranged from .489 (liking) to .862 (self-promotion), with the exception of trust, which had a negative, non-significant intraclass correlation (-.212).

These correlations indicate that the partners in each round generally agreed on the impression management behaviours that a participant was using during the game. The rater's scores for the impression management behaviours, liking, and trust were averaged to create a mean score for each participant throughout the game. Liking and trust did not have the same degree of agreement among raters, reasons and implications of this disagreement will be discussed in the next section.

Table 5

Descriptive statistics and ICCs for peer rated variables

Variables	ICC	α	M	SD	Min	Max
Liking	0.489		5.541	0.686	3.500	7.000
Trust	-0.212		5.095	0.704	2.750	7.000
Impression Management Behaviours						
Self-Promotion	0.862	.890	3.004	0.749	1.190	4.750
Ingratiation	0.725	.869	2.464	0.658	1.000	4.130
Intimidation	0.791	.691	1.553	0.520	1.000	3.250
Supplication	0.796	.769	1.574	0.505	1.000	3.500

Note: N=180, Liking and Trust were rated on a 7-point Likert scale; Impression management behaviours were rated on a 5-point Likert scale.

Game Success. Each experimental session had a different number of participants which allowed different numbers of rounds to be conducted. In each round, a participant had the potential to receive two match votes from their group members. If two partners selected each other for a match, they would advance to the next round of the game. A more successful participant would receive more match votes and advance further in the game. A percentage of partner match votes was used to represent game success. Each participant was given a success score equal to the number of participants that chose him or her for a match, divided by the number of total matches they could have received in that session. For example, if a participant was eliminated in the first round because neither partner indicated they wanted to match with them, they had a success score of 0 (0

matches/ 2 possible). If a participant matched in the second round with both partners selecting them for a match in the first round, and one partner selecting them in the second round, they would have a success score of .75 (3 matches/ 4 possible).

Attractiveness. Ratings of participants' photographs were collected from third party raters following the experimental sessions as a control variable. Intraclass correlations and descriptive statistics for these photo ratings can be found in Table 6. All of the physical impressions that were rated had strong intraclass correlations within both groups of raters, indicating the raters agreed with each other. Attractiveness was the main control variable used throughout the analysis, however, other attributes were collected as potential exploratory or control variables. Attractiveness scores were calculated by averaging the rater's response to the single item in the facial judgment scale that asked if the rater agreed to the statement "this person is attractive." Correlations between these ratings can be found in Table 7.

Table 6

Descriptive statistics and ICCs for photograph ratings

Variables	ICC		<i>M</i>	<i>SD</i>	Min	Max
	Group A	Group B				
Attractiveness	0.919	0.920	4.258	0.795	2.560	5.890
Trustworthy	0.879	0.859	4.807	0.603	3.420	5.940
Competent	0.713	0.790	5.130	0.474	3.800	6.060
Likable	0.915	0.846	4.915	0.605	3.160	6.060
Deceitful	0.811	0.813	3.053	0.568	2.000	4.530
Happy	0.974	0.959	4.395	1.242	2.050	6.470
Sad	0.940	0.923	3.099	0.915	1.610	5.680
Angry	0.949	0.904	2.728	0.921	1.370	5.580

Note: $N_A = 20$, $N_B = 17$

Table 7

Correlations of photograph ratings

	1	2	3	4	5	6	7
1. Trustworthy							
2. Competent	.758**						
3. Likable	.828**	.600**					
4. Deceitful	-.879**	-.665**	-.692**				
5. Attractive	.421**	.424**	.578**	-.214**			
6. Happy	.665**	.388**	.813**	-.552**	.397**		
7. Sad	-.622**	-.439**	-.771**	.512**	-.458**	-.905**	
8. Angry	-.774**	-.564**	-.844**	.717**	-.366**	-.835**	.780**

Note: ** Correlation is significant at the 0.01 level (2-tailed). $N = 180$

Power Manipulation. In the experimental procedure, expert power was manipulated by providing participants with a clue depending on their assigned power condition (high, medium, and low power). Two approaches of coding and analyzing power (an ordinal variable) were considered for the main hypothesis tests; using power as a continuous variable and coding power as a categorical variable. Pasta (2009) argued that it is rare for the non-linear component of an ordinal variable to be substantial when the linear component is negligible. Therefore, ordinal variables should be treated as continuous variables until the basic model is established.

The hypotheses were tested first using power as a continuous variable (high power = 3, medium power = 2, low power = 1). This method of analysis was a more logical first step to analyze data from this new procedure because it established a basic model for this analysis. The hypotheses were tested again with power coded as a categorical variable using effect coding. Effect coding was the appropriate method over simple dummy coding because power was included as an interaction term in the models (Wermuth & Cox, 1992). Treating an ordinal variable as continuous may increase Type II error by masking significant interactions. Using effect coding in the analysis did not provide any evidence for new interactions or insight to relationships established by the initial analysis. Additional information about the analysis using effect coding and significant relationships within the analysis can be found in Appendix D. The means for each power condition across success and the dependent variables can be found in Figure 7 and Figure 8.

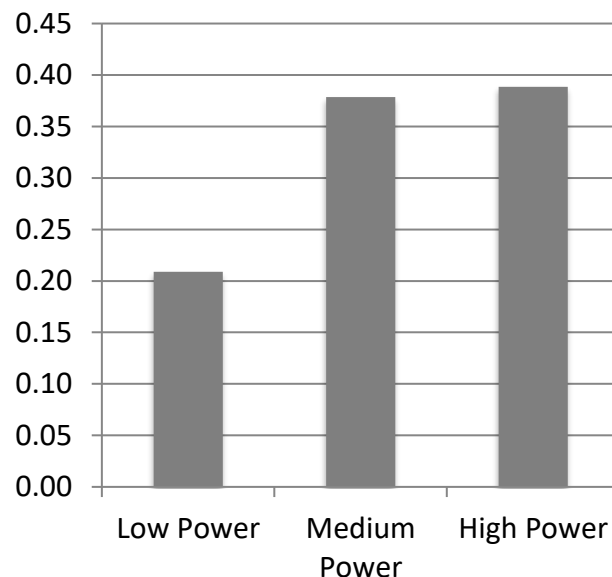


Figure 7. Average success score in each power condition.

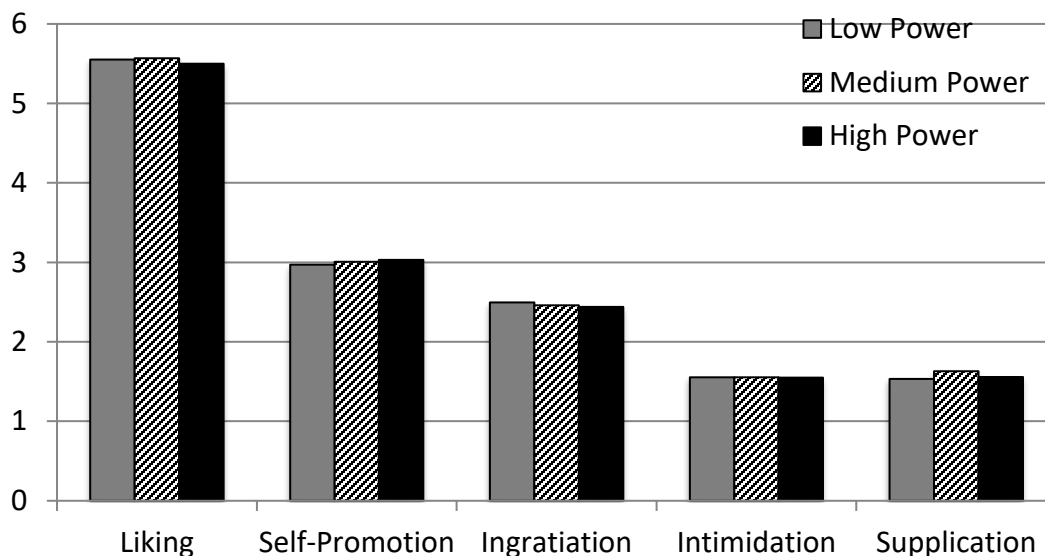


Figure 8. Average peer rated score of liking and impression management behaviours across power conditions.

Hypothesis Tests. The hypotheses were tested using multi-level modeling in R studio (R Core Team, 2017), as the participants were nested within the experimental session they participated in (Level 2 variable). Multilevel modeling was used because this procedure violated the assumption of independence of observations due to the nature of hosting multiple experiment sessions with groups of participants. It was clear while hosting the sessions that each class responded to the game differently, suggesting there would be variance accounted for by grouping participants within each session. In the multilevel model, the intercept of each regression varied by session to account for these differences. Variables that remained consistent within participants were Level 1 variables, including honesty-humility, game success, power, impression management behaviours, liking, trust, and attractiveness. Honesty-humility and power were the primary predictors, and attractiveness served as a control variable in each model. The correlations between these primary variables can be found in Table 8.

To test the assumption of homogeneity of regression slopes, interactions of the control variable (attractiveness) with the predictor variables (honesty-humility and power) were checked. There was one interaction between the covariate and a predictor when the outcome was supplication. The presence of an interaction between the covariate and predictor tells us that any main effect of honesty-humility may be obscured by the interaction of attractiveness, however this was not the case because there was no main effect of honesty-humility even when attractiveness was not included in the model. This interaction is reported in Hypothesis 3, and no other interactions that would obscure the main effects in the other hypothesis tests were found. The hypotheses were tested using honesty-humility as the main personality predictor due to the nature of the student sample (as discussed). To test the validity of using honesty-humility in lieu of psychopathy, the hypotheses were also tested using psychopathy as the personality predictor in an additional analysis.

A null model was tested for each hypothesis before adding predictors to the multi-level model. The attractiveness control variable was added to the model (Model 1), followed by each primary predictor variable (honesty-humility and power; Model 2). Following the analysis of these main effects, the interaction term (honesty-humility * power) was then added as Model 3. The composite tables display the beta coefficients for each predictor variable at the step it first was added to the model.

Nagelkerke's modified pseudo R^2 was used to calculate the effect size for each model in the analysis (Nagelkerke, 1991). This modified R^2 reflects the improvement of the multi-level regression model from the null model (intercept model). This calculation produces the pseudo R^2 value, and the Nagelkerke modified pseudo R^2 value (denoted as:

modified R^2). The modified R^2 value is a goodness-of-fit measure and indicates the proportion of the variance explained by the tested model, compared to the null model. The reported modified R^2 values reflect the fit of the whole model after each predictor was added to the model.

In a preliminary analysis, the hypotheses were tested in each round of the experiment. Participants were nested in the experimental session they participated in and within their group of three in each round. The experimental procedure eliminated one third of the participants in each round, making the sample size too small for the analysis in advanced rounds. Round 4 did not have enough participants remaining in the game to conduct a multi-level model analysis ($n = 12$). To conduct the analysis with an adequate sample size, an average of rated behaviours across all rounds of the experiment were used as the dependent variables in the hypothesis tests.

Using cumulative scores also meant that each participant had more raters contributing to their impression management behaviour scores. If each round was analyzed separately, each participant would only have two group members rating their impression management behaviours at a time, whereas cumulative ratings included a minimum of four group members rating each participant's behaviour. This larger sample of raters provided a report on long term game behaviour and disposition of the participants, and therefore converged onto the true behaviour of the participants in the game. Analyzing across all rounds of the experimental game was the method used for the hypothesis tests because it was the most valid method to address the research questions.

Exploratory Analyses. Two one-way ANOVAs were conducted after the primary analyses in SPSS to determine the key differences between participants who were the

most successful, compared to the participants who were the least successful. The primary control, and dependent variables (attractiveness, honesty-humility, and power) were used to detect differences between participants who were the least successful (eliminated in the first round of the game) and those who were the most successful (participated in the final round of the game). An additional multi-level model analysis was conducted to determine which impression management behaviours lead to greater participant success.

The hypotheses were retested with psychopathy as the personality predictor instead of honesty-humility. The procedure for this analysis was the same as the original hypothesis tests, except psychopathy was the predictor in Model 2. This analysis was conducted to confirm honesty-humility could be used to make implications about psychopathy, which was the inspiration for the research question.

Table 8

Correlations between variables used in primary hypothesis analyses

	1	2	3	4	5	6	7	8	9
1. Attractiveness									
2. Honesty-Humility	.081								
3. Psychopathy	-.082	-.542**							
4. Liking	.297**	.126	-.057						
5. Self-Promotion	.164*	.016	.021	.316**					
6. Ingratiation	.031	.014	-.002	.267**	.644**				
7. Intimidation	-.122	-.049	.113	-.067	.286**	.465**			
8. Supplication	-.158*	-.062	.105	-.069	.056	.416**	.740**		
9. Game Success	.280**	.104	-.098	.198**	.254**	.084	-.182*	-.168*	
10. Power	-.131	-.058	.065	.030	-.033	.035	.003	-.021	-.254**

Note: N = 180, ** Correlation is significant at the 0.01 level (2-tailed);

* Correlation is significant at the 0.05 level (2-tailed).

Hypothesis Tests

Hypothesis 1: Intimidation. Hypothesis 1 stated that when intimidation was the outcome variable, there would be an interaction between honesty-humility and power, with the most intimidation being used by those with low honesty-humility, and high power. This hypothesis was not supported as there was no significant main effect or interaction between honesty-humility and power to predict intimidation. Intimidation was the lowest reported impression management behaviour across participants, with a mean of 1.553 on a five-point Likert scale. An unexpected finding was that the control variable (attractiveness) was a significant and negative predictor of intimidation ($Beta = -.091$, $SE_{Beta} = .045$, $p = .045$, modified $R^2 = .127$). This effect demonstrates that for every one point increase (on a seven-point Likert scale) in an attractiveness rating, intimidation was reported to decrease by .091 points (on a five-point Likert scale). Adding honesty-humility and power in Model 2 reduced the main effect of attractiveness to being non-significant. A composite table with the beta coefficients for each variable when they were added to the model can be found in Table 9.

Hypothesis 2: Ingratiation. In Hypothesis 2, it was predicted that there would be a power by honesty-humility interaction when predicting ingratiation behaviours, and an overall main effect of both honesty-humility and power. It was predicted that participants in the high power condition would not use ingratiation, and those in the medium and low power conditions would differ based on their honesty-humility. This hypothesis was not supported. There was no main effect of honesty-humility, or power on the use of ingratiation, and there was no interaction present. These beta coefficients can be found in Table 9.

Hypothesis 3: Supplication. Similar to Hypothesis 2, I predicted there would be an interaction between power and honesty-humility on supplication, such that participants in the low power condition with low honesty-humility would have the highest reports of supplication, while those in the high power condition would not use supplication. This hypothesis was not supported, as there was no interaction between honesty-humility and power (see Table 9). There was a significant interaction between the covariate, attractiveness, and honesty-humility found in this analysis ($B = -.031$, $SE_B = .005$, $p = .024$, modified $r^2 = .178$). This interaction violates the assumption of independence of the covariate and treatment effect, so the hypothesis could not be supported.

Once again, there was an unexpected result as attractiveness was a significant, negative predictor of reported supplication ($Beta = -.098$, $SE_{Beta} = .044$, $p = .028$, modified $R^2 = .111$). Those who were rated as less attractive were more likely to use supplication. For every unit decrease in attractiveness (on a seven-point Likert scale;) there was a .098 increase in supplication use (on a five-point Likert scale). A composite table with the beta coefficients for the interaction term and each variable when they were added to the model can be found in Table 9.

There was a significant interaction between the covariate (attractiveness) and a predictor (honesty-humility) in predicting supplication behaviour, which violates the assumption of homogeneity of regression slopes. Figure 9 illustrates the simple slopes when participants are grouped by high attractiveness (above the median of 4.28) and low attractiveness (equal to or below the median). These simple slopes were not significant, however, the high attractiveness and low attractiveness groups did show a slight difference in the direction of the relationship between honesty-humility and supplication.

These non-significant beta coefficients indicated that those rated with lower attractiveness used slightly, but not significantly, more supplication when they had low honesty-humility ($Beta = -.006$, $SE_{Beta} = .007$, $p = .354$, modified $R^2 = .223$), and those rated with higher attractiveness used (non significantly) more supplication when they had high honesty-humility ($Beta = .011$, $SE_{Beta} = .007$, $p = .138$, modified $R^2 = .110$). Implications of this interaction will be addressed in the discussion section.

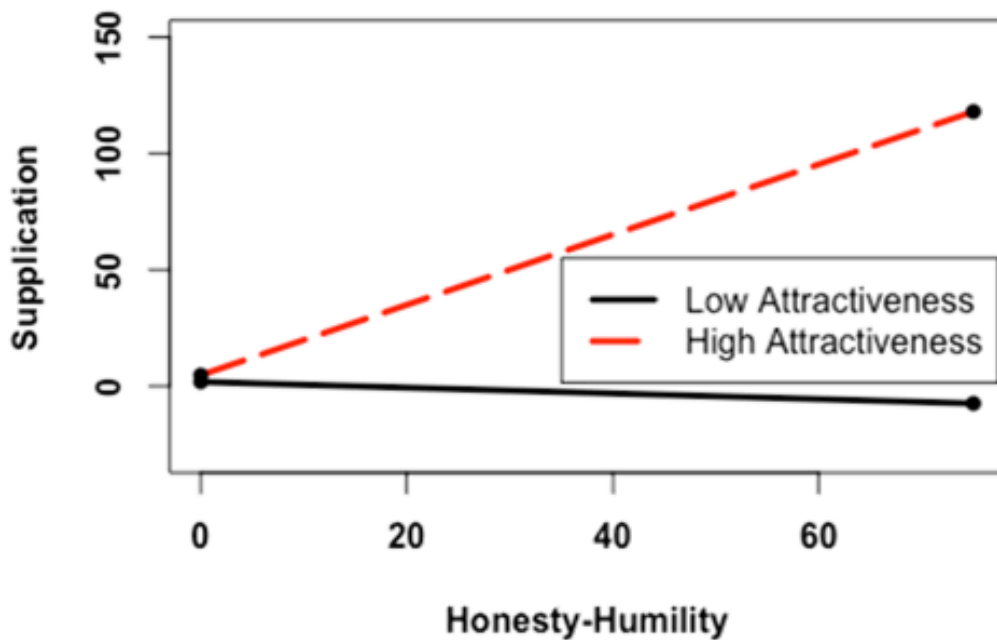


Figure 9. Simple slopes analysis of interaction between attractiveness and honesty-humility when predicting supplication in Hypothesis 3.

Table 9:

Composite table of beta coefficients and pseudo R² values for Hypotheses 1, 2, and 3, predicting impression management behaviour.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
Hypothesis 1 - Intimidation				
<i>Null Model</i>				
Intercept	1.507	0.082	18.320*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.091	0.045	-2.018*	0.127
<i>Model 2: Main Effects</i>				
Honesty-Humility	-0.002	0.004	-0.414	0.171
Power	0.009	0.044	0.211	0.171
<i>Model 3: Interaction</i>				
Honesty-Humility x Power	0.006	0.005	1.153	0.179
Hypothesis 2 - Ingratiation				
<i>Null Model</i>				
Intercept	2.454	0.134	18.325*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.005	0.056	-0.092	0.121
<i>Model 2: Main Effects</i>				
Honesty-Humility	0.001	0.005	0.133	0.183
Power	-0.031	0.054	-0.560	0.184
<i>Model 3: Interaction</i>				
Honesty-Humility x Power	0.006	0.006	1.010	0.190
Hypothesis 3 - Supplication				
<i>Null Model</i>				
Intercept	1.534	0.066	23.216	
<i>Model 1: Covariate</i>				
Attractiveness	-0.098	0.044	-2.218*	0.111
<i>Model 2: Main Effects</i>				
Honesty-Humility	-0.002	0.004	-0.462	0.144
Power	0.026	0.044	0.595	0.146
<i>Model 3: Interaction</i>				
Honesty-Humility x Power	0.006	0.005	-1.139	0.154

*Note: * t-value is significant at the 0.05 level (2-tailed).*

Hypothesis 4: Game Success. In Hypothesis 4, I predicted that the best predictor of success would be the power condition a participant was assigned to, and those with low honesty-humility would be the most successful within their power condition. This

hypothesis was partially supported. Honesty-humility was not related to success; however, power was a strong, positive predictor of game success ($Beta = .082$, $SE_{Beta} = .025$, $p = .001$, modified $R^2 = .448$). For a participant who was one level higher in the power condition, there was an average .082 unit increase of game success (on a scale of 0-1). Once again, attractiveness was a significant positive predictor. Participants who were rated as more attractive were significantly more successful ($Beta = .104$, $SE_{Beta} = .026$, $p < .001$, modified $R^2 = .279$). For every single unit increase of attractiveness (on a seven-point Likert scale) there was a .088 increase in game success. There was no significant interaction among these variables. A composite table with the beta coefficients for each variable when they were added to the model can be found in Table 10.

I also hypothesized that game success would be predicted by liking, with those who were liked more expected to advance further in the game. This hypothesis was supported, as the relationships between liking and game success were positive, even when controlling for attractiveness (which was the strongest previous predictor of success). When controlling for attractiveness, liking (by one's partners) was a significant, positive predictor for game success ($Beta = .068$, $SE_{Beta} = .032$, $p = .036$, modified $R^2 = .345$). For every unit increase in liking on a seven-point Likert scale, game success increased by .068 units (on a scale from 0-1). A composite table with the beta coefficients for each variable when they were added to the model can be found in Table 10.

In an additional analysis, the four impression management behaviours were added to the liking model used in Hypothesis 4 to predict success. Self-promotion was a positive predictor of game success within this model ($Beta = .088$, $SE_{Beta} = .029$, $p < .001$, modified $R^2 = .520$). As self-promotion use increased by one on the five-point Likert

scale, success increased by .088 (on a scale of 0-1). Intimidation was a negative predictor for game success ($Beta = -.152$, $SE_{Beta} = .041$, $p < .001$, modified $R^2 = .724$). When a participant increased intimidation by one point (on a five-point Likert scale), success decreased by .152. Ingratiation and supplication were not significant predictors of game success. Beta coefficients for this analysis can be found in Table 10.

Table 10

Composite table of beta coefficients and pseudo R² values for Hypothesis 4 predicting success and the additional analysis.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
Honesty-Humility and Power				
<i>Null Model</i>				
Intercept	0.325	0.021	15.365*	
<i>Model 1: Covariate</i>				
Attractiveness	0.104	0.026	4.024*	0.279
<i>Model 2: Main Effects</i>				
Honesty-Humility	0.002	0.002	1.038	0.273
Power	0.082	0.025	3.288*	0.448
<i>Model 3: Interaction</i>				
Honesty-Humility x Power	0.001	0.003	-0.226	0.449
Liking				
<i>Null Model</i>				
Intercept	0.325	0.021	15.366*	
<i>Model 1: Covariate</i>				
Attractiveness	0.104	0.026	4.024*	0.279
<i>Model 2: Main Effects</i>				
Liking	0.068	0.032	2.118*	0.345
Self-Promotion	0.090	0.029	3.106*	0.494
Intimidation	-0.142	0.041	-3.467*	0.674
Ingratiation	0.011	0.042	0.269	0.676
Supplication	0.016	0.063	0.253	0.676

Note: * t-value is significant at the 0.05 level (2-tailed).

Hypothesis 5: Liking and Trust. I predicted that low honesty-humility would be associated with greater dislike and lower reported trust from one's game partners. With respect to liking, this hypothesis was not supported. However, attractiveness was a significant, positive predictor of liking ($Beta = .210$, $SE_{Beta} = .055$, $p < .001$, modified $R^2 = .239$). As attractiveness increased by one unit (on a seven-point Likert scale), liking increased by .210 units (on a seven-point Likert scale).

The interclass correlations measuring interrater reliability for trust was negative, indicating the group members did not agree if a person was trustworthy (Table 5). Due to the nature of the experimental game, participants were asked to differentiate between their two group members and select the one they trusted and liked more to continue working with. It seems that this differentiation lead to group members making different judgments of a participant's trustworthiness. Other potential explanations and implications of trust ratings will be expanded upon in the discussion section.

Table 11

Composite table of beta coefficients and pseudo R² values for Hypothesis 5a predicting liking.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
Hypothesis 5a – Liking				
<i>Null Model</i>				
Intercept	5.528	0.128	43.021*	
<i>Model 1: Covariate</i>				
Attractiveness	0.210	0.055	3.787*	0.239
<i>Model 2: Main Effects</i>				
Honesty-Humility	0.007	0.005	1.392	0.290
Power	-0.047	0.054	-0.881	0.293
<i>Model 3: Interaction</i>				
Honesty-Humility x Power	-0.002	0.006	-0.375	0.294

Note: * t-value is significant at the 0.05 level (2-tailed).

Exploratory Hypothesis: Self-Promotion. The goal of this exploratory hypothesis was to determine if honesty-humility and power would serve as positive or negative predictors of self-promotion. Attractiveness was used as a control variable, honesty-humility and power were the main predictors in the model, and an interaction between honesty-humility and power was examined in the final step. There was no significant main effect or interaction of power and honesty-humility. Once again,

attractiveness was a significant, positive predictor of self-promotion use ($Beta = .156$, $SE_{Beta} = .066$, $p = .019$, modified $R^2 = .183$). For every single increase in attractiveness on a seven-point Likert scale, participants were reported as displaying .156 more units of self-promotion behaviour on a five-point Likert scale. A composite table with the beta coefficients for each variable when they were added to the model can be found in Table 12.

Table 12

Composite table of beta coefficients and pseudo R^2 values predicting self-promotion in the exploratory hypothesis.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R^2</i>
<i>Null Model</i>				
Intercept	3.046	0.118	25.845	
<i>Model 1: Covariate</i>				
Attractiveness	0.124	0.065	1.918*	0.121
<i>Model 2: Main Effects</i>				
Honesty-Humility	>-0.001	0.006	-0.032	0.183
Power	0.018	0.063	0.279	0.183
<i>Model 3: Interaction</i>				
Honesty-Humility x Power	0.006	0.008	0.830	0.187

Note: * t-value is significant at the 0.05 level (2-tailed).

Additional Analyses. Lee and Ashton (2004) found that honesty-humility was strongly correlated with psychopathy in an undergraduate sample ($r = -.72$). The current study replicated a correlation consistent with these findings, the Pearson Correlation between the sample's honesty-humility and psychopathy was $r = -.542$ ($p < .001$). This relationship is not as strong as the relationship in Lee and Ashton's (2004), but it supports the implication that honesty-humility is closely related to psychopathy and was a viable substitute measure for psychopathy.

To compare general characteristics of participants, two independent t-tests were conducted between participants who were eliminated in the first round, to those who were not, and compare those who made it to the final round of the game to those who did not. Those who were eliminated in the first round and sent to the consolation round were rated as being less attractive ($t(183) = -3.449, p < .001$). There was no significant difference found in honesty-humility or power. Means and standard deviations of these groups can be found in Table 13.

Participants who made it to the final round of the game, and were therefore the most successful, tended to be in the higher power condition ($t(184) = 2.467, p = .015$), more attractive ($t(183) = 2.535, p = .012$), and higher on honesty-humility ($t(180) = 3.050, p = .003$). Means and standard deviations of these groups can be found in Table 12.

The final additional analysis tested the hypotheses using psychopathy scores as the personality predictor rather than honesty-humility. Beta values from these analyses are included in composite tables in Appendix E. Conducting this analysis confirms past research that honesty-humility and psychopathy have similar outcomes and predictive ability. Psychopathy did not serve as a significant predictor in these hypotheses, and there were no significant interactions between psychopathy and power in the analysis.

In Hypothesis 1, 2, 3, and 4, I predicted intimidation, ingratiation, supplication, and success (respectively) would be predicted by honesty-humility and power, however these hypotheses were not supported. The beta coefficients for psychopathy were non-significant but positive (Table E1 and Table E2), whereas when honesty-humility was the predictor, the beta coefficients were non-significant and negative. The direction and

magnitude of these coefficients is consistent with past research suggesting that low honesty-humility has similar outcomes as high psychopathy.

Hypothesis 5a predicted that honesty-humility and power would predict peer ratings of liking, but this was not supported. Hypothesis 5a was also not supported when psychopathy was used as a predictor in the analysis in place of honesty-humility. When psychopathy was used in the analysis, the main effect was not significant and the beta coefficient was negative (Table E3).

The final relevant analysis used honesty-humility and power to predict self-promotion, however there were no significant main effects of these variables. The beta coefficient for psychopathy in this model was negative and marginally stronger than the beta coefficient for honesty-humility, but it was not a significant predictor of self-promotion (Table E4).

The findings revealed in this additional analysis are consistent with the original hypothesis tests. Generally, using psychopathy as the personality predictor lead to the beta coefficient changing direction, but not magnitude. This supports my assumption that honesty-humility and psychopathy would have similar outcomes and implications will be considered in the discussion section.

Table 13

Descriptive statistics and t-values comparing participants in the final round of the game to participants not in the final round of the game.

	In Final Round				Not In Final Round				<i>t</i>	<i>df</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>		
Power	66	1.803	0.769	0.095	120	2.108	0.828	0.076	2.467*	184
Attractiveness	66	4.454	0.774	0.095	119	4.149	0.789	0.072	2.535*	183
Honesty- Humility	66	44.439	6.232	0.767	116	46.172	7.527	0.699	-1.586	180
Psychopathy	66	78.773	10.756	1.324	116	83.888	13.932	1.294	-2.764*	163.909

Note: * t-value is significant at the 0.05 level (2-tailed).

Table 14

Descriptive statistics and t-values comparing participants in the consolation round of the game to participants not in the consolation round of the game.

	In Consolation Round				Not In Consolation Round				<i>t</i>	<i>df</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>		
Power	69	2.116	0.900	0.108	117	1.932	0.763	0.071	1.426	124.675
Attractiveness	68	3.992	0.744	0.090	117	4.413	0.785	0.073	-3.584*	183
Honesty- Humility	66	45.015	8.193	1.009	116	45.845	6.443	0.598	-0.755	180
Psychopathy	66	82.167	13.514	1.664	116	81.957	12.877	1.196	0.104	180

Note: * t-value is significant at the 0.05 level (2-tailed).

Discussion

The objective of this thesis was to experimentally determine what impression management behaviours would be used in a competitive environment, which behaviours would be associated with success, and how an individual's honesty-humility would impact their use of impression management. This study was inspired by the literature on corporate psychopathy, and positive applications of psychopathy and low honesty-humility.

My hypotheses centered on an interaction between power and honesty-humility predicting impression management behaviours based primarily on the findings of Friedlander and Schwartz (1985), and Bourdage and colleagues (2014). Friedlander and Schwartz (1985) observed that in clinical therapy sessions, client's impression management behaviour changed because there was a power difference between them and their clinician. Bourdage and colleagues (2014) found that the HEXACO personality traits (including honesty-humility) could predict the use of the five impression management behaviours in the workplace.

In Hypothesis 1, I expected intimidation to be predicted by low honesty-humility, and participants in the high and low power condition to use intimidation more than those in the medium power condition. Friedlander and Schwartz (1985) found that patients with low power occasionally used intimidation to gain power, but individuals with high situational power were the most likely to use intimidation. This hypothesis was not supported as there was no main effect of power or honesty-humility on the use of intimidation, and no interaction between honesty-humility and power was present. Hypothesis 2 and 3 predicted that ingratiation and supplication (respectively) would be

the highest among participants in the low power condition, and participants with low honesty-humility. These hypotheses were also not supported. Hypothesis 2 and 3 may not have been supported in the current study because of the experimental design. The reviewed literature suggested that honesty-humility should be a predictor for the five impression management behaviours defined by Jones and Pittman (1982; Bourdage et al., 2014). Since there was no relationship between honesty-humility and any of the impression management behaviours, the possibility of flaws in the experimental procedure will be addressed when experimental design strengths and weaknesses are discussed.

The overall goal of the current study was to determine what made a person more successful in the workplace. As predicted in Hypothesis 4, the power condition was a strong predictor of game success, validating the power manipulation chosen for this experiment. Honesty-humility was not found to be a predictor of game success. Based on previous research by Wheeler and colleagues (2009), Dutton (2012), Lee and colleagues (2013), and Pizarro and Bartles (2011), I had predicted that lower levels of honesty-humility would predict greater success similar to how mild levels psychopathy lead to greater success in business. Unlike these studies, success in the experimental game was based on interpersonal coalitions rather than an individual's task or cognitive success in a lab setting, such as identifying victim vulnerability (Wheeler et al., 2009), and making utilitarian decisions (Bartles & Pizarro, 2011). To be successful, participants were required to use social skills and persuasion, which had not been addressed in previous studies regarding psychopathy or honesty-humility. Babiak and colleagues (2010) had conducted a field experiment using 360 degree evaluations of employees found that those

with mid-levels of psychopathy had some of the highest ratings of communication, creativity, and strategic thinking. However, Babiak and colleague's study (2010) did not examine how employees reached their position, which was a question this study hoped to answer.

Hypothesis 5a and 5b explored liking and trust as an outcome variable for honesty-humility, and power. When interpreting these results, the agreement between raters should be considered. The intraclass correlation for trust was negative, indicating that the raters did not agree whether a participant was trustworthy. The nature of the experimental game required participants to behave differently to the group member they were seeking to match with. This change of behaviour would result in the two group members providing different trust ratings to the target participant. The game also required participants to differentiate between their two group members by selecting one they liked or trusted more to work with. Participants may have adopted a strategy where they would seek to have both group members like and trust them, or they may have targeted one person to appeal to more. The liking scores between raters had a greater degree of agreement than the trust scores, which may have been because likability is an easier trait to judge quickly than trustworthiness. Groups were only given approximately two minutes to interact before making their match decision, so it is possible that participants were not able to get an accurate judgment of their group member's trustworthiness in that short period of time.

Another explanation for this disparity is that some participants tended to give all of their group members 7/7 ratings for both liking and trust, indicating they were reluctant to give a group member low trust and liking scores. One rater may have been overly

generous with their trust ratings, whereas the other may have been more honest and realistic in their ratings. Due to the interrater reliability not being at an acceptable level, Hypothesis 5b predicting trust was not included in the analysis.

The use of self-promotion was explored since it was unclear from the literature what the nature of the interaction between honesty-humility and power would be when they predicted self-promotion. The analysis did not produce a main effect or interaction between power and honesty-humility, however it was the most frequently reported impression management behaviour. It is possible that no main effect of honesty-humility or power emerged because the experimental situation fostered self-promotion over the other impression management behaviours. Participants may have perceived self-promotion to be the best strategy to form a match regardless of their honesty-humility or power condition in the game.

An additional exploratory analysis was conducted that used the four impression management behaviours to predict success, while controlling for attractiveness, and liking. Success was positively predicted by the use of self-promotion, and negatively predicted by the use of intimidation. These findings support the notion that self-promotion is a more socially accepted form of impression management, and intimidation is not. Friedlander and Schwartz (1985) suggested that in some cases, where a person is in a position of low power, they could use intimidation in an attempt to gain power. According to Jones and Pittman (1982), a risk of using intimidation as an impression management strategy is being perceived as ineffectual. It is likely that the student sample was more adept at using self-promotion (where the goal is to be viewed as competent) than they were at using intimidation to elicit fear from their target. Thus participants

would have been more successful when using self-promotion than when they used intimidation.

When the most successful participants were compared to the rest of the sample, they were found to be in a higher power condition, more attractive, and high on honesty-humility. Although among student samples, some degree of psychopathy was found to be beneficial in work-related tasks (Bartles & Pizarro, 2011; Book et al., 2013), the most successful participants in the current study scored higher on honesty-humility. This experimental game was different from these other tasks because it required a person to form a social coalition with at least one group member. This outcome is consistent with Babiak and colleague's (2010) finding that corporate psychopaths tend to receive poor peer-ratings in the workplace. Participants who were unsuccessful in the first round of the game, tended to be less attractive, but did not differ in power condition or honesty-humility. This suggests that attractiveness had a greater impact on participant success and behaviour than what was initially anticipated in the hypotheses.

Psychopathy was also used as a predictor in place of honesty-humility to test the hypotheses as an additional analysis. Honesty-humility was chosen as the main personality variable because it is more socially accepted than psychopathy, and there was a higher chance of having extreme scores of honesty-humility in the student sample. Testing the hypotheses using psychopathy did not provide me with additional insight as to how corporate psychopaths use impression management to advance in an organization. This analysis provided evidence that low honesty-humility and high psychopathy had similar predictive capabilities. The beta coefficients of honesty-humility and psychopathy were similar in magnitude, but were in the opposite direction when the hypotheses were

retested. The likeness between these two variables suggests that honesty-humility can be used to predict similar outcomes as psychopathy.

Attractiveness

Attractiveness played an unexpected role in this study. Participants' physical attractiveness was intended to serve as a control variable in the regression models due to evidence in the literature that attractiveness influences perception of workplace success and interpersonal interactions (Furnham & Swami, 2012). The strength of this relationship was underestimated and attractiveness became a strong predictor for success, liking, self-promotion, intimidation, and supplication. Attractive people are often viewed as possessing more desirable traits because of the halo effect, where a person is judged on one trait which dominates all other judgments of that person (Edgley, Ashmore, Makhijani & Longo, 1991). Assuming a person has more socially desirable traits gives them an advantage when you need to make a quick judgment and form a social coalition. This advantage created a degree of power within the experiment that was not predicted and could not be controlled in the experimental procedure.

The power manipulation in this experiment depended upon creating a situation where participants had expert power, which is based on a person's experience, skills, talent, and knowledge (French & Raven, 1959). The clues provided to the high and medium power conditions were intended to increase their expert power by providing them with knowledge relevant to the Red Herring task. Referent power emerges when a person possesses desirable characteristics or is a member of an appealing group (French & Raven, 1959). Physically attractive individuals would be a group that others wish to be part of, which gives them influence over others. Gordon, Crosnoe, and Wang (2013) also

found that more attractive adolescents had greater social integration, and received more favourable treatment from their peers and teachers. The participant's referent power had a greater impact on their peer ratings and game performance than I had initially hypothesized when designing the procedure.

A study by Wilson and colleagues (1985) suggested that attractive people in the workforce are not just perceived as being more favorable because of the "beauty is good stereotype," but because they are seen as being more socially skilled (Dion, Berscheid & Walster, 1972). This study found that attractive people were rated as less competent, and peers believed they were successful because of their greater social skills. Hawley, Johnson, Mize, and McNamara (2007) also found that attractive children were perceived to have stronger social skills by their teachers and peers. They even went as far as to say that "beauty is a marked social asset" (Hawley et al., 2007, p. 500). If physically attractive individuals possess stronger social skills, then it would make sense that they would be more successful in this experimental game.

When testing Hypothesis 1 and Hypothesis 3, honesty-humility and power did not serve as predictors for intimidation and supplication, however attractiveness was a negative predictor for these two impression management behaviours. This means that those who were rated as more attractive were reported as using intimidation and supplication less, and participants who were rated as less attractive were reported to use intimidation and supplication more. Hawley and colleagues (2007) demonstrated in a preschool sample that teachers rated less attractive students as being more aggressive, which is consistent with the outcome of the current study. These findings are also in agreement with the "beauty is good" stereotype, where those who are attractive tend to be

rated higher on socially desirable traits (Dion et al., 1972). It is possible that a participant's attractiveness, or unattractiveness, influenced their group member's willingness report their impression management behaviour, which may have lead them to rate unattractive peers to have used more socially undesirable behaviour such as intimidation and supplication.

There was an interaction between attractiveness and honesty-humility when Hypothesis 3 was tested. This interaction could potentially obscure the main effect of attractiveness, however I believe the interaction may have been spurious in this case. The simple slopes analysis did not result in a significant relationship between honesty-humility and supplication in the high attractiveness or low attractiveness groups, which means the interaction was weak and potentially spurious. One speculative interpretation of this interaction is that participants with high honesty-humility and high attractiveness were more willing to expose their weaknesses and use supplication than less attractive participants or those with low honesty-humility because a person with high honesty-humility is humble and accepts that they are not perfect. One possible explanation for this relationship is that someone with high honesty-humility and high attractiveness may have been successful in eliciting help when they used supplication in the past, possibly because they were attractive. The flatness of the slope for the low attractiveness group may indicate that supplication has not been a rewarded behaviour for this group regardless of a person's honesty-humility. I believe the main effect of attractiveness on supplication is still valid in this analysis and interpretation because the interaction was weak, the simple slopes were not significant, and no other impression management behaviour demonstrated the same effect.

Attractiveness also served as a positive predictor for self-promotion during the exploratory analysis. Participants who were rated high on attractiveness were reported to use self-promotion more than those who were rated low on attractiveness. One explanation of this finding is that participants who were more attractive had greater confidence to discuss their own accomplishments and skills, whereas the less attractive participants may have been more reserved and less willing to disclose their strengths. Although there has not been much empirical research explaining the relationship between self-promotion and attractiveness, these results are in line with conclusions made by Segal-Caspi and colleagues (2012). The authors concluded in their study on perceived and reported traits of attractive women, that attractive women were more likely to engage in self-promotion behaviour.

Finally, attractiveness was found to be the strongest predictor of game success; participants attempted to make a match with participants who were more attractive. Most research on success and physical attractiveness has demonstrated that people perceive attractive people to be more successful (Dion et al., 1972; Marlowe et al., 2006; Rule & Ambady, 2009). The current study has demonstrated that in a competitive game, where participants must make social coalitions (similar to the workplace), more attractive people are in fact more successful, rather than just appearing to be more successful.

Implications

The original goal of this study was to determine how people with low honesty-humility, and moderate psychopathy use impression management to get ahead in business when they have different levels of situational power. Honesty-humility and power were not strong enough predictors of impression management behaviours and success to

support the hypotheses. Had these hypotheses been supported, this study could have provided researchers with insight as to how a corporate psychopath, or an employee with low honesty-humility, is able to get promoted and hired for management positions without necessarily demonstrating good performance. These findings would be of use to organizations during performance reviews and interviews, where managers are the most susceptible to being persuaded by impression management (Barrick et al., 2009). Since honesty and integrity are highly sought after traits in employees, it is important for organizations to be aware of 'red flag' behaviours that predict negative work outcomes. Previous research has called for the development of screening procedures for low honesty-humility and corporate psychopathy, which is a difficult feat since honesty-humility is not an overt personality trait that can be easily observed in a job interview without psychological tests. By better understanding the impact of power on the use of impression management behaviour, identifying deviant employees may be easier. It should be noted that the prevalence of extreme psychopathy scores is low in working and student samples (less than 5.9%). Future studies seeking to create a selection tool for organizations that identify corporate psychopathy or red flag behaviours should establish valid, high cut off scores to prevent organizations from overestimating their prevalence or obtaining false positives. Organizations should also recognize that any test they use to measure psychopathy cannot be considered a psychological evaluation or diagnosis. If organizations rely on unvalidated psychopathy tests they risk missing the chance to hire or promote a strong employee based on unsubstantiated information.

With attractiveness emerging as a strong predictor for success, peer ratings, and impression management behaviours, this study has provided insight to the consequences

of the beauty is good stereotype and the social advantage that attractive people possess. There has been substantial evidence that attractiveness can predict how successful a person is perceived to be (Furnham & Swami, 2012; Marlowe et al., 1996; Nadler, 1980; Rule & Ambady, 2009; Segal-Caspi et al., 2012), however there has been a gap in the literature that experimentally demonstrates the positive association between attractiveness and success. This study was able to demonstrate that participants who were more attractive were more successful, and the small group of the most successful participants in the game was more attractive than the rest of the participants. The least successful participants in the game were also less attractive than the rest of the participants. These results are in line with Griffin and Langlois's theory (2009) that unattractive people are placed at a disadvantage, as they are associated with socially undesirable traits.

The current study failed to support the hypotheses that interactions between honesty-humility and power would predict impression management behaviours and success. However, the strong effect of attractiveness has workplace implications. Since attractive participants were reported to use more self-promotion than less attractive participants, they would likely perform better in job interviews and performance appraisals, where self-promotion is necessary to be seen as successful. Attractive job candidates are more likely to receive a job offer than a less attractive, equally qualified candidate (Furnham & Swami, 2012). The use of impression management, specifically self-promotion, could explain this outcome. In some positions, self-promotion would be considered an asset.

The impression management behaviours that were the most associated with game success were self-promotion and intimidation. These findings may help in the

development of impression management training at work. A training such as this may help employees understand how they can effectively use self-promotion without appearing conceded (Jones & Pittman, 1982), and how to recognize and avoid situations where they may feel the need to use intimidation. Intimidation may only be effective in situations where a person does not need to be liked to be successful, such as when they have legitimate power (power that stems from the subordinate's obligation to accept their influence) and not when they require referent power (French & Raven, 1959).

Procedural Strengths and Limitations

The experimental procedure in the study was designed to place participants in a situation where they would need to use impression management to successfully form a social coalition. Previous research on impression management, power, honesty-humility, and the social coalition task, suggested that this experiment would stimulate observable impression management (Bourdage et al., 2014; Gilin et al., 2013; Friedlander & Schwartz, 1985). This procedure had strengths and weaknesses, but overall provided insight to what influences a person's decision to form a social coalition and what can make a person more successful in a competitive social context.

This procedure effectively simulated a competitive social situation by asking participants to form social coalitions, and produced a definitive way to measure their success based on the number of people who sought to form a coalition with them. This procedure was also effective in eliciting self-promotion and ingratiation, which were the highest reported impression management behaviours in the study. It also allowed me to directly measure which impression management behaviours helped a person get ahead in the game. In the experimental sessions that were included in the analysis, participants

were actively engaged in the procedure and were genuinely trying to win and succeed. It was important for the game to elicit competition in the participants so they would be motivated to use manipulative impression management and deception to get ahead, similar to the behaviour seen by a corporate psychopath. In one case, a participant in the low power condition was a member of the winning pair because they lied to all of their group members about what power condition they were in, suggesting that dishonesty can be effective in this procedure. As revealed in the analysis, participants were not more likely to be successful if their group members trusted them. Across hypothesis tests, honesty-humility was not a significant predictor of behaviour or game success, which may explain why lying was effective for a member of the low power condition.

The foremost limitation of this procedure was that it relied on an undergraduate sample to draw conclusions on an applied workplace. This sample was used for the convenience of data collection, however future research should attempt to study the same phenomena in a working sample. The current study only had five participants with a psychopathy score two standard deviations above the mean (<105), which was 2.7% of the sample. Since this study did not use a clinical measure psychopathy (being a self-report measure), these participants cannot be labeled as clinical or corporate psychopaths. However, a working sample would increase the incidence of low honesty-humility and corporate psychopathy within the sample, Babiak and colleagues (2010) demonstrated a 5.9% prevalence of corporate psychopathy within their working sample. Increased prevalence may increase the strength of the relationships between personality and impression management behaviours (such as those relationships seen in Bourdage et al., 2014). A benefit of using a student sample in this study is that the participants did not

have any established social power among their group members. In a working sample, participants would already have varying degrees of legitimate power based on their role or position in the organization, and the power manipulation would not be as strong.

The procedure was complicated, and it took the research team (three student research assistants and I) two sessions to master the most efficient way to distribute the appropriate materials and ensure all personality surveys were collected. Unfortunately, the first two sessions were large classes with 45 participants each, which led to a large proportion of the data having to be excluded from the analysis. Since participants were recruited through professors and full class participation, I did not have control over the number of participants in each session, or the date the session would be conducted. I would recommend to future researchers using this procedure to first conduct smaller pilot studies to ensure the research team can perform the procedure correctly before using larger sample sizes in the event that the first sessions need to be removed from the analysis due to procedural errors. However, initial power calculations indicated that 105 participants would have been sufficient to test my hypotheses. Despite meeting this number in the first three experimental sessions, I continued to collect data to ensure the analysis would be conducted using sessions where the procedure was followed correctly. Although removing five sessions reduced my sample size by 44%, it led to me using data that was ethically collected from the sessions with the strongest procedural and internal validity.

Unfortunately, there were low average instances of some impression management behaviours, particularly supplication and intimidation. Although students were encouraged to talk during this time, internal validity would have been compromised if I

had told them what they should be talking about or had I encouraged impression management behaviour. These low averages of impression management behaviour could be a result of students not talking to one another, or discussing unrelated matters during their time to use impression management.

The trust ratings collected by participants presented another limitation to the study. The negative ICC of trust ratings indicated that the group members did not agree if a participant was trustworthy, resulting in unusable ratings due to poor interrater reliability. Participants had a very short period of time, and limited interactions to judge how much they trusted their group members, and were asked to select one person over another. This was not a situation that would foster accurate ratings of trust across raters. Although trust could play an important role in predicting success in this game, alternative methods of collecting trust ratings should be considered in future iterations of this procedure.

The Red Herring task and power manipulation used in the game may have also influenced the perceived purpose of the study. The Red Herring task the participants were asked to perform with their matched partner was merely a consequence for forming a good coalition and was not used to measure participant's success. Since the Red Herring task was a cognitive task, self-promotion was naturally the most effective impression management behaviour to use to emphasize one's cognitive skills. The puzzle clues given as the power manipulation may have also been too strong and overshadowed the skills possessed by participants in the low power condition who were not given a clue. There were cases in multiple sessions where participants would report only selecting a person to match with based on the clue they were provided with, rather than other skills they would

bring to the coalition. Since power condition was a predictor of success, the impact of other variables such as a person's honesty-humility, or the impression management behaviours they engaged in, may not have influenced the matching decision. A task where the goal was to use impression management should be considered for future iterations of this procedure, such as a sales pitch.

The randomly assigned power condition was held constant throughout the game for each participant. Power conditions were balanced within groups in the first round, however the act of eliminating some participants from the game in each round lead to groups having an unequal balance of power conditions following the first round. This imbalance did not change the clue each participant were provided with in the game (expert power), however it may have impacted the power other participants perceived them to have or the power they felt they had. In a case where two of the three group members had high power, and the other had medium power, those in the high power condition may not have been as unique or advantageous to match with as they would have been in the first round. Participants with the word pairing (medium power) may have been perceived to be more powerful or felt more powerful because they had a unique clue when the other two group members had the category clue (high power). This may have blurred the lines between high power and medium power in the analysis, as the average success rate for medium and high power was very close.

To account for the uneven power distribution in future iterations of this procedure, a manipulation check of self-perceived power, and perceived power of group members could be added to the matching ballot. There is evidence that suggests possessing power does not necessarily mean that a person feels powerful (Maner, Gailliot, Menzel &

Kunstman, 2012). When participants were provided with the high power clue, they may not have necessarily felt powerful, or changed their behaviour because of their power condition. The gap between assigned expert power and felt power may have been emphasized by the shifting distribution of power in the game. Adding a power manipulation check could also allow future researchers to examine other dimensions of French and Raven's (1959) social power model other than expert power. Participants may reveal they perceived their group members (or themselves) to possess other dimensions of power such as referent power, or legitimate power.

During the early conception phases of the experimental procedure, impression management behaviour was going to be coded using audio and video recordings. Although this has been an effective way to measure impression management behaviour in previous studies (Roulin et al., 2015), the large number of participants that were involved in this study in each session posed a threat to the clarity of any recordings. As a result, the measure of impression management behaviour was changed to a peer rated scale. This method of measurement came with some flaws within the confines of this procedure. Participants may have been primed and more aware of potential impression management behaviours when they completed the scale during the first round of matching. The items in the scale were also adapted to fit the context of this game. The wording of each item was adjusted to allow group members to rate each other rather than being a self-report survey, and the subjects of the items were changed to group members, rather than co-workers or colleagues. These changes did not make a substantial difference in the reliability and validity of the scale, as the intraclass correlations of the raters was significant and deemed their ratings to be reliable. Using the Bolino and Turnley (1999)

scale for impression management allowed group members to evaluate each other's behaviour immediately after each round and did not depend on unreliable recording equipment or coding by student researchers. However, not all participants put equal effort into the impression management ratings, which is a common consequence of using student participants.

With modifications to the experimental procedure, the literature suggests that impression management can in fact be predicted by honesty-humility, and based on the current study, psychopathy as well. Although the hypotheses were not supported in this study, numerous studies that were reviewed suggest that honesty-humility and power interact to predict impression management behaviour. Despite the experiment's limitations in addressing the research question, it was a difficult task to design a procedure that would capture the process and behaviour that leads to a person moving up in an organization. This study provides future researchers with a first step in experimentally studying organizational advancement.

Future Research

The experimental procedure used in this study would be valuable to use and validate in future research as a way to measure impression management behaviour. Based on the strong influence of attractiveness on match decisions, it would be interesting to measure participant's confidence to determine if more attractive participants were more likely to use self-promotion versus supplication because they were more confident in their social power. Another interesting personality trait that could influence success and impression management could be competitiveness, as some participants were visibly more invested in the competition than others, which likely influenced their behaviour

during the game (Elliot et al., 2016). Future research could also go beyond using personality to predict success and impression management behaviours. Interpersonal skills and social assets such as persuasion, and charismatic authority have the potential to serve as predictors for success in a competitive environment and the workplace.

As suggested above, altering the task to one that is less cognitive and more social may encourage a greater variation of impression management behaviours. If the procedure is used in an applied setting with working participants the task could be altered to reflect a task or situation the participants encounter in their job. This could include creating a sales pitch, a mock interview, exerting influence over a third party, or a small debate. The skills required for these tasks are more dependent on impression management and interpersonal manipulation. Using a working sample and applied task could also elicit the use of exemplification as an impression management technique, which could not be captured in the current study. Exemplification relies on people recalling previous behaviour in which they were righteous in the situation (Jones & Pittman, 1982), and since the Red Herring task was novel, exemplification was not measured. Catering the task to the applied sample would also increase the external validity of the findings, which is a weakness of experimental research. It would be interesting to determine if there are differences of the impression management behaviours used in different industries, or even at different levels of the organization.

Although information on participant's race was not collected in this study, it is likely that race would have had an impact on the perceived situational power and group dynamic. Social psychology research suggests that participants are more likely to select a person of the same race to match with due to in-group familiarity (Allen, 1976). Race

could have also had an impact on the attractiveness ratings, as people tend to find members of their own race more attractive (Allen, 1976). Future research could examine if racial identity had an impact on participant's success and if the rater's race influenced their attractiveness ratings of the participants.

Babiak and colleagues (2010) suggested that impression management was the key to corporate psychopaths advancing in the workplace despite negative peer reviews. One goal of this study was to address this gap in the literature. The relationship between honesty-humility (and indirectly psychopathy) and impression management behaviour was not confirmed. Similar to previous psychopathy research, using an incarcerated population with a high prevalence of psychopathy could provide greater insight to how psychopaths use impression management (Book et al., 2013; Pizarro & Bartels, 2011). If there is a relationship within the incarcerated sample, the next step may be to replicate the findings in a work sample in an industry with a high prevalence of corporate psychopathy to fully understand this dynamic.

Conclusion

This aim of this study was to examine how individuals with low honesty-humility (Ashton & Lee, 2009) get ahead in business by assessing the use of impression management (Jones & Pitman, 1985) in a competitive experimental game while manipulating power and controlling for attractiveness. The procedure was based on the social coalition task developed by Gilin and colleagues (2013). I hypothesized that honesty-humility and power would interact to predict the impression management behaviours participants would use, as well as their success in the game. Honesty-humility did not play a significant role in game success or impression management behaviours,

however, power was a strong predictor of game success. The analysis revealed an unexpected finding, which was that attractiveness predicted game success, liking, self-promotion, and intimidation behaviour. These findings may have stemmed from the strength of the power manipulation and participant's attractiveness suppressing the effect of honesty-humility on impression management behaviours that was suggested by Bourdage and colleagues (2014). Future research can expand upon this study by validating the experimental procedure, and examining the role of race and interpersonal skills that contribute to success rather than only personality.

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APPENDIX A

Matching Ballot and Impression Management Measure

Your Name/ID _____

Please remember that you must fill out this form for BOTH of your group members in this round.

Name/ID of Group Member: _____

Would you like to continue working/match with this person? (Circle)

Yes No

Please rate how much you **LIKE** this group member based on your experience with them in the round. (Circle)

1 2 3 4 5 6 7

Please rate how much you **TRUST** this group member based on your experience with them in the round. (Circle)

1 2 3 4 5 6 7

Please indicate how frequently this group member used the following behaviours during this round:

		Never	Vary Rarely	Occasi onally	Someti mes	Often
Self Promotion	1) Talked proudly about their experience or education.	1	2	3	4	5
	2) Made people aware of their talents or qualifications.	1	2	3	4	5
	3) Let you know that they are valuable to the group.	1	2	3	4	5
	4) Made people aware of their accomplishments.	1	2	3	4	5
Ingratiation	5) Complimented you and your group members so they will be seen as likeable.	1	2	3	4	5
	6) Took an interest in your groups' personal lives to show you that they are friendly	1	2	3	4	5
	7) Praised you and your group members for your accomplishments so you would consider them a nice person	1	2	3	4	5
	8) Did/promised favours for you to show that they are friendly	1	2	3	4	5
Intimidation	9) Was intimidating with group members when to help get selected for a match	1	2	3	4	5
	10) Let group members know that they can make things difficult for you if you tried to push them too far	1	2	3	4	5
	11) Dealt forcefully with group members when you tried to hamper your progress in the game	1	2	3	4	5

	12) Dealt strongly or aggressively with group members who interfered with their progress	1	2	3	4	5
	13) Used intimidation to get group members to behave appropriately	1	2	3	4	5
	14) Acted like they know less than they do so group members will help them out	1	2	3	4	5
Supplication	15) Tried to gain assistance or sympathy from group members by appearing needy in some area	1	2	3	4	5
	16) Pretended not to understand something to gain your help	1	2	3	4	5
	17) Acted like they needed assistance so you would help them out	1	2	3	4	5
	18) Pretended to know less than you so they could avoid an unpleasant outcome	1	2	3	4	5

Note: The matching ballot used in the study did not indicate the impression management behaviour associated with each item, or separate the subscales.

APPENDIX B

Red Herring Task

Task Description

The goal of this game is to sort your words into categories. To solve a category, you must group 4 words in the same column. But here's the catch: 4 of these words are the Red Herrings, they are in the puzzle just to confuse you. A word may appear to belong in more than one category, but there is only one correct solution to each puzzle.

Some of the members of your groups may have been given a clue. If they have a category clue, then you will know one of the categories your words will be sorted into. If they have a word-pairing clue, then you will know two words that belong in the same category.

When you believe you have the correct groups, inform a researcher and they will tell you whether you are correct, or incorrect, but they will not provide you with any other information. You are not required to correctly name the categories, but you must have the correct words in each category.

Here is an example of a completed game:

Colours	Types of Animals	Snow _____	Red Herring
Red	Canine	Man	Vitamin
Yellow	Equestrian	Flake	Cheese
Green	Primate	Board	Twenty
Blue	Feline	White	Radio

- A clue for the high power condition would tell the person that one category is: **Snow _____**
- A clue for the medium power condition would tell the person that *Canine* and *Primate* belong to the same category

Round 1 Game

Utensils	Tastes	Egg Orders	Red Herring
Spoon	Sweet	Scrambled	Glass
Fork	Sour	Hard-Boiled	Pepper
Knife	Salty	Over Easy	Bowl
Ladle	Bitter	Poached	Yummy

- High Power Clue: **Utensils**
- Medium Power Clue: **Bitter & Sweet**

Round 2 Game

Camera Parts	Very Short Time	Window Covers	Red Herring
Viewfinder	Second	Shade	Ballpoint
Shutter	Moment	Drape	Make
Flash	Instant	Blind	Aquaman
Aperture	Jiffy	Curtain	Deaf

- High Power Clue: **Camera Parts**
- Medium Power Clue: **Second & Jiffy**

Round 3 Game

Units of Weight	Places to Learn	Animal Groups	Red Herring
Ton	Lyceum	Flock	Dollar
Stone	College	School	Rock
Pound	University	Gaggle	Jet
Newton	Academy	Herd	Einstein

- High Power Clue: **Animal Groups**
- Medium Power Clue: **Lyceum & College**

Round 4 Game

Fishing Gear	Captain_____	Cape____	Red Herring
Creel	Kangaroo	Canaveral	Chilly
Reel	America	Breton	Kazoo
Line	Marvel	Cod	Burton
Sinker	Hook	Fear	Horror

- High Power Clue: **Fishing Gear**
- Medium Power Clue: **Hook & Kangaroo**

Round 5 Game (If Applicable)

Betty _____	Puddings	Clue Suspects	Red Herring
White	Plum	Scarlet	Crimson
Crocker	Bread	Mustard	Clinton
Ford	Tapioca	Green	Indiana
Boop	Chocolate	Peacock	Asparagus

- High Power Clue: **Betty _____**
- Medium Power Clue: **Mustard & Peacock**

Consolation Round 1 Game

Fruit	Flowers	Spheres	Red Herring
Strawberry	Tulip	Bubble	Ring
Grape	Carnation	Sun	Carrot
Watermelon	Rose	Ball	Swing
Banana	Daisy	Orange	Vine

- High Power Clue: **Spheres**
- Medium Power Clue: **Banana & Watermelon**

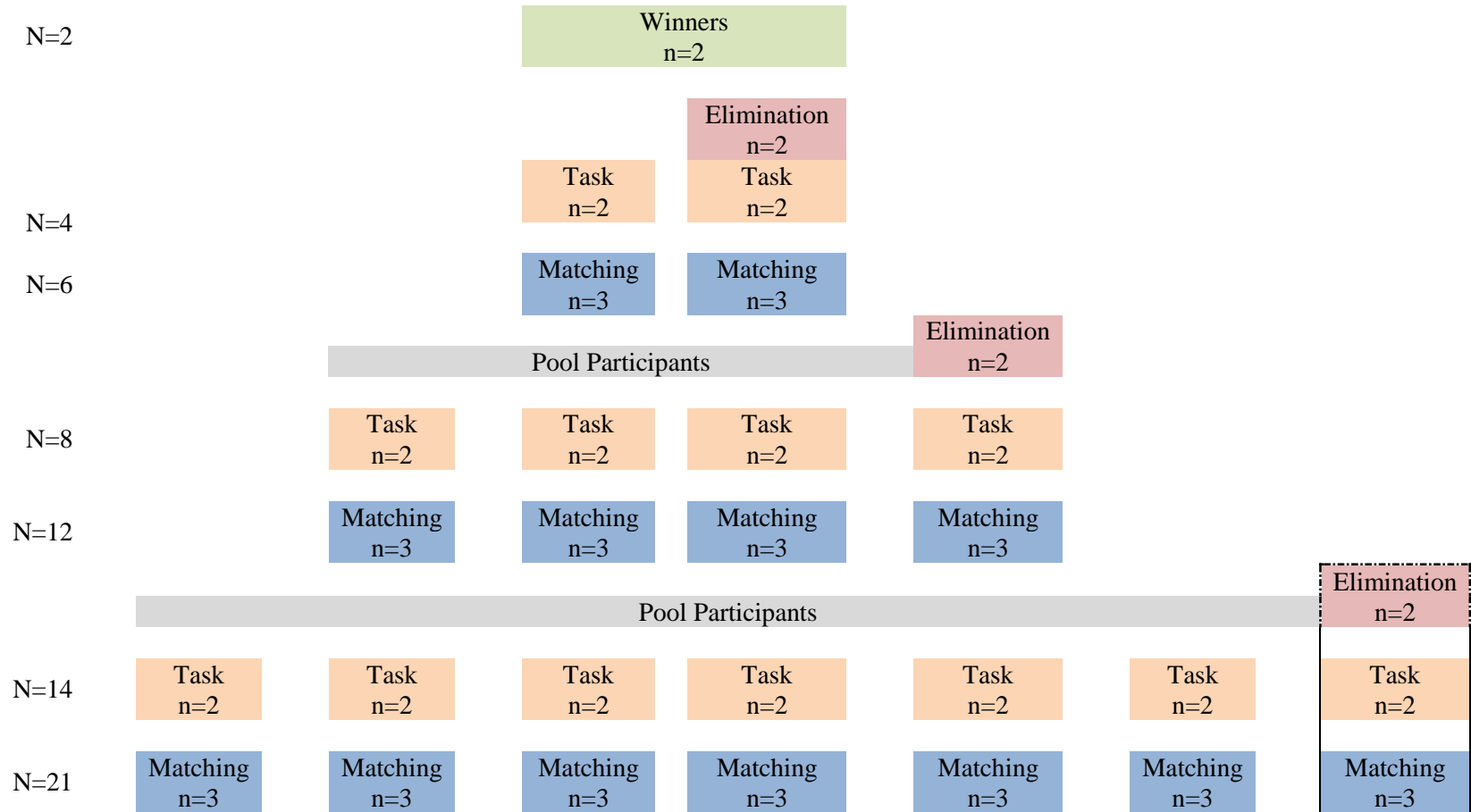
Consolation Round 2

George___	Plants	People in Charge	Red Herring
Clooney	Tree	Manager	Oregon
Takei	Shrub	Overseer	Roosevelt
Washington	Bush	Boss	California
Lucas	Herb	Supervisor	Spok

- High Power Clue: **George_____**
- Medium Power Clue: **Bush & Tree**

APPENDIX C

Visual Depiction of the Experimental Procedure



	Consolation Round	
N=6	Matching n=3	Matching n=3
N=4	Task n=2	Task n=2
N=3	Matching n=3	
N=2	Task n=2	

APPENDIX D

Additional Analysis – Power as a Categorical Variable Using Effect Coding

This additional analysis followed the same procedure as the primary hypothesis analysis. The difference in this analysis was that power was coded as a categorical variable using effect coding, rather than being treated as a continuous variable (Wermuth & Cox, 1992). Table D1 lists the effect codes that were assigned to the three power conditions for this additional analysis. Power1 compares the high power condition to the low power condition, and Power2 compares the medium power condition to the low power condition.

Table D1

Effect codes for high, medium, and low power in the analysis.

	Power1	Power2
High Power	1	0
Medium Power	0	1
Low Power	-1	-1

After testing all the hypotheses using effect coding for power, the only significant relationship was found in Hypothesis 4, which used attractiveness, honesty-humility, and power to predict success. This analysis revealed that success in the medium power condition group ($M = .38$) is significantly different from success in the low power condition ($M = .21$), however success in the high power condition ($M = .39$) is not significantly different from the low power condition. To follow up these analyses, I tested the effect of power on success without any covariates, which had opposing results (Table D3).

Table D2

Composite table of beta coefficients and pseudo R² values for Hypothesis 4 predicting success.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
<i>Null Model</i>				
Intercept	0.325	0.021	15.365*	
<i>Model 1: Covariate</i>				
Attractiveness	0.104	0.026	4.024*	0.279
<i>Model 2: Main Effects</i>				
Honesty-Humility	0.002	0.003	1.038	0.273
Power1	0.046	0.028	1.615	0.544
Power2	0.070	0.028	2.472*	
<i>Model 3: Interaction</i>				
Honesty-Humility x Power1	0.003	0.003	0.838	0.564
Honesty-Humility x Power2	-0.003	0.003	-1.053	

*Note: * t-value is significant at the 0.05 level (2-tailed).*

Table D3

Table of beta coefficients for power comparisons predicting success without other covariates

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>p-value</i>
Intercept	0.325	0.021	15.365*	0.000
Power1	0.063	0.029	2.187*	0.030
Power2	0.053	0.029	1.836	0.066

*Note: * t-value is significant at the 0.05 level (2-tailed).*

These results were not included in the primary analysis because they did not provide additional information that would lead me to change the interpretation of Hypothesis 4 or any of the research questions. It does however raise questions as to why the Power1 comparison would be the stronger predictor of success without covariates, but become non-significant when attractiveness and honesty-humility were added to the model. The means of success for each power condition suggest that high power should be

a stronger predictor of success than medium power, however this is not what was suggested in Model 2. There is also no interaction between power levels and attractiveness or honesty-humility that would provide evidence as to why the power conditions in first model deviate from the pattern of the means.

Using effect coding to make power a categorical variable did not lead to additional significant main effects or interactions in the other hypothesis tests. In Hypothesis 1, intimidation was still negatively predicted by attractiveness and was unrelated to honesty-humility and power (Table D4). Hypothesis 2 predicting ingratiation remained unsupported; there was no main effect of attractiveness, honesty-humility, or power, and there was no interaction between honesty-humility and power. Supplication was used as the outcome variable in Hypothesis 3, and maintained that attractiveness served as a negative predictor. Power and honesty-humility had no main effect or interaction (Table D4). With respect to liking in Hypothesis 5a, there was no change in findings when power was coded as a categorical variable. Liking was predicted by attractiveness, but there was no main effect of honesty-humility or power. Finally, in the exploratory hypothesis regarding self-promotion, there was no change in the outcome of power. Attractiveness was a positive predictor of self-promotion, but there was no main effect of honesty-humility and power, or interaction (Table D4).

Table D4

Composite table of beta coefficients and pseudo R² values for Hypothesis 1, 2, 3, 5a, and the exploratory hypothesis predicting impression management behaviours and liking.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
Hypothesis 1 - Intimidation				
<i>Null Model</i>				
Intercept	1.507	0.082	18.320*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.091	0.045	-2.018*	0.127
<i>Model 2: Main Effects</i>				
Honesty-Humility	-0.002	0.004	-0.414	0.171
Power1	0.017	0.051	0.325	0.171
Power2	-0.014	0.051	-0.282	
<i>Model 3: Interaction</i>				
Honesty-Humility x Power1	0.010	0.006	1.554	0.187
Honesty-Humility x Power2	-0.006	0.005	-1.108	
Hypothesis 2 - Ingratiation				
<i>Null Model</i>				
Intercept	2.454	0.134	18.325*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.005	0.056	-0.092	0.121
<i>Model 2: Main Effects</i>				
Honesty-Humility	0.001	0.005	0.133	0.183
Power1	-0.029	0.064	-0.469	0.184
Power2	-0.002	0.064	-0.040	
<i>Model 3: Interaction</i>				
Honesty-Humility x Power1	0.007	0.008	0.883	0.190
Honesty-Humility x Power2	>-0.001	0.007	-0.059	
Hypothesis 3 - Supplication				
<i>Null Model</i>				
Intercept	1.534	0.066	23.216*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.098	0.044	-2.218*	0.111
<i>Model 2: Main Effects</i>				
Honesty-Humility	-0.002	0.004	-0.462	0.144
Power1	0.026	0.051	0.051	0.184
Power2	0.046	0.051	0.907	
<i>Model 3: Interaction</i>				
Honesty-Humility x Power1	0.012	0.006	1.912	0.190
Honesty-Humility x Power2	-0.009	0.005	-1.706	

Hypothesis 5a - Liking				
Null Model				
Intercept	5.528	0.128	43.021*	
Model 1: Covariate				
Attractiveness	0.210	0.055	3.787*	0.239
Model 2: Main Effects				
Honesty-Humility	0.007	0.005	1.392	0.290
Power1	-0.072	0.062	-1.155	0.296
Power2	0.049	0.062	0.782	
Model 3: Interaction				
Honesty-Humility x Power1	-0.001	0.008	-0.184	0.297
Honesty-Humility x Power2	-0.001	0.007	-0.195	
Exploratory Hypothesis – Self Promotion				
Null Model				
Intercept	3.046	0.118	25.845	
Model 1: Covariate				
Attractiveness	0.124	0.065	1.918*	0.121
Model 2: Main Effects				
Honesty-Humility	>-0.001	0.006	-0.032	0.183
Power1	0.011	0.073	0.157	0.183
Power2	0.012	0.073	0.162	
Model 3: Interaction				
Honesty-Humility x Power1	0.006	0.009	0.659	0.187
Honesty-Humility x Power2	0.001	0.008	0.091	

Note: * t-value is significant at the 0.05 level (2-tailed).

APPENDIX E

Additional Analysis – Psychopathy as the Personality Predictor

Table E1

Composite table of beta coefficients and pseudo R² values for hypotheses 1, 2 and 3 predicting impression management behaviours.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
Hypothesis 1 - Intimidation				
<i>Null Model</i>				
Intercept	1.507	0.082	18.320*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.091	0.045	-2.018*	0.127
<i>Model 2: Main Effects</i>				
Psychopathy	0.001	0.003	0.310	0.181
Power	0.012	0.044	0.271	0.182
<i>Model 3: Interaction</i>				
Psychopathy x Power	-0.002	0.003	-0.591	0.184
Hypothesis 2 - Ingratiation				
<i>Null Model</i>				
Intercept	2.454	0.134	18.325*	
<i>Model 1: Covariate</i>				
Attractiveness	-0.005	0.056	-0.092	0.121
<i>Model 2: Main Effects</i>				
Psychopathy	0.001	0.005	0.171	0.183
Power	-0.030	0.054	-0.544	0.184
<i>Model 3: Interaction</i>				
Psychopathy x Power	-0.005	0.004	-1.291	0.194
Hypothesis 3 - Supplication				
<i>Null Model</i>				
Intercept	1.534	0.066	23.216	
<i>Model 1: Covariate</i>				
Attractiveness	-0.098	0.044	-2.218	0.111
<i>Model 2: Main Effects</i>				
Psychopathy	0.002	0.004	-0.462	0.149
Power	0.028	0.043	0.636	0.152
<i>Model 3: Interaction</i>				
Psychopathy x Power	>-0.001	0.003	-0.124	0.152

*Note: * t-value is significant at the 0.05 level (2-tailed).*

Table E2

Composite table of beta coefficients and pseudo R^2 values for Hypothesis 4 predicting success.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	t-value	Modified R^2
Null Model				
Intercept	0.325	0.021	15.365*	
Model 1: Covariate				
Attractiveness	0.104	0.026	4.024*	0.279
Model 2: Main Effects				
Psychopathy	-0.001	0.001	-0.937	0.269
Power	0.082	0.025	3.288*	0.445
Model 3: Interaction				
Psychopathy x Power	>0.001	0.002	0.077	0.445

Note: * t-value is significant at the 0.05 level (2-tailed).

Table E3

Composite table of beta coefficients and pseudo R^2 values for Hypothesis 5 predicting liking and trust.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	t-value	Modified R^2
Liking				
Null Model				
Intercept	5.528	0.128	43.021*	
Model 1: Covariate				
Attractiveness	0.210	0.055	3.787*	0.239
Model 2: Main Effects				
Psychopathy	-0.001	0.003	-0.492	0.282
Power	-0.045	0.054	-0.837	0.288
Model 3: Interaction				
Psychopathy x Power	0.002	0.004	0.747	0.288

Note: * t-value is significant at the 0.05 level (2-tailed).

Table E4

Composite table of beta coefficients and pseudo R² values predicting self-promotion in the exploratory hypothesis.

<i>Variable</i>	<i>Beta</i>	<i>SE Beta</i>	<i>t-value</i>	<i>Modified R²</i>
<i>Null Model</i>				
Intercept	3.046	0.118	25.845	
<i>Model 1: Covariate</i>				
Attractiveness	0.124	0.065	1.918*	0.121
<i>Model 2: Main Effects</i>				
Psychopathy	0.002	0.003	0.698	0.185
Power	0.020	0.063	0.318	0.185
<i>Model 3: Interaction</i>				
Psychopathy x Power	-0.005	0.004	-1.222	0.193

*Note: * t-value is significant at the 0.05 level (2-tailed).*