Situational Peer Preferences Within the Dark Triad and Light Three: Peer Selection and Ranking

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2

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Abstract

The Dark Triad is a trio of socially aversive sub-clinical personality traits consisting of narcissism, Machiavellianism, and psychopathy. The Light Three is a grouping of three prosocial sub-clinical personality traits including empathy, altruism, and compassion. Benchmarks of these personality traits are their unique HEXACO profiles. The HEXACO model of personality structure includes six domains: Honesty-Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to Experience. Previous research has explored the implications that these personality traits have on various contexts such as employment, friendship, and romantic relationships, as well as assortative mating preferences. The purpose of this investigation was to explore peer preference as a function of personality and biological sex in the contexts of friendship, teamwork, and financial trust. A secondary focus of this study was to further validate the Dark Triad and Light Three to support that these are unique and independent concepts. To do this, 319 undergraduate students at Lakehead University and 117 international community participants completed a series of questionnaires and a scenario task. This task consisted of six vignettes that each represented one of the six personality traits, and contextual scenarios that imposed high stakes situations. Participants ranked the vignettes to indicate which of the personalities they would most to least like to be paired with in the assigned context. Bivariate correlations revealed significant relationships between personality traits and peer preference at both general and contextual levels, both with and without consideration for biological sex.

Table of Contents

Acknowledgements	2
Abstract	3
Table of Contents	4
List of Abbreviations	7
List of Appendices	8
List of Tables	10
Conceptualizing Personality	12
The Dark Triad	13
Psychopathy	14
Machiavellianism	14
Narcissism	15
The Light Three	16
Altruism	16
Compassion	17
Empathy	17
Contrasting the Dark Triad and the Light Three	18
Contextualizing Personality	19
Teamwork	19
Social Relationships	22
Sex Differences in Societal Contexts	24
Gender Stereotypes in Societal Contexts	25
The Current Study	26
Objectives, Hypotheses, and Research Questions	27

Metho	d	28
	Participants	28
	Student Sample	28
	Community Sample	30
	Vignettes	32
	Measures	32
	Demographic Questionnaire	32
	60-Item HEXACO Personality Inventory – Revised	33
	HEXACO Personality Inventory – Honesty Humility Factor Scale	33
	The Short Dark Triad	33
	The Light Three Scale	34
	The Light Three Scale – 6-Item	34
	Peer Choice Questionnaire	34
	Satisfaction with Life Scale	35
	Personality Research Form – Social Desirability Scale	36
	Personality Research Form – Infrequency Scale	36
	Procedure	37
	Student Sample	37
	Community Sample	39
Statist	ical Analyses	42
	Hypothesis One	43
	Hypothesis Two	43
Result	S	43

	Scale Characteristics and Internal Consistency	43
	Preliminary Findings	46
	Hypothesis One	48
	Hypothesis Two	56
Discus	sion	65
	Distinguishing the Dark Triad and Light Three	65
	Hypothesis One	66
	Hypothesis 1. A	66
	Hypothesis 1. B	66
	Hypothesis 1. C	67
	Hypothesis Two	68
	Limitations	68
	Future Research	69
Conclu	asion	70
Refere	nces	73
Appen	dices	82

List of Abbreviations

HEXACO-60 60-Item HEXACO Inventory

SD3 Short Dark Triad Scale

LTS Light Three Scale

LTS-6 Light Three Scale – 6-Item

PCQ Peer Choice Questionnaire

SWLS Satisfaction with Life Scale

PRF-D Personality Research Form – Social Desirability Scale

PRF-I Personality Research Form – Infrequency Scale

SPSS Statistical Package for the Social Sciences – Version 28

List of Appendices

Appendix A: Psychopathy Vignette

Appendix B: Machiavellian Vignette

Appendix C: Narcissism Vignette

Appendix D: Altruism Vignette

Appendix E: Compassion Vignette

Appendix F: Empathy Vignette

Appendix G: Demographic Questionnaire – Student Sample

Appendix H: Demographic Questionnaire – Community Sample

Appendix I: 60-Item HEXACO Personality Inventory - Revised

Appendix J: HEXACO Personality Inventory – Honesty-Humility Factor Scale

Appendix K: The Short Dark Triad

Appendix L: The Light Three Scale

Appendix M: The Light Three Scale – 6-Item Version

Appendix N: Peer Choice Questionnaire – Student Sample

Appendix O: Peer Choice Questionnaire – Community Sample

Appendix P: Satisfaction with Life Scale

Appendix Q: Personality Research Form – Social Desirability Scale

Appendix R: Personality Research Form – Infrequency Scale

Appendix S: Social Media Recruitment Poster – Student Sample

Appendix T: Written Information – Student Sample

Appendix U: Electronic Consent Form – Student Sample

Appendix V: Debriefing Form – Student Sample

Appendix W: Social Media Recruitment Poster – Community Sample

Appendix X: Written Information – Community Sample

Appendix Y: Electronic Consent Form – Community Sample

Appendix Z: Debriefing Form – Community Sample

List of Tables

- Table 1: Student Sample Characteristics
- Table 2: Community Sample Characteristics
- Table 3: Student Subsample Characteristics
- Table 4: Community Subsample Characteristics
- Table 5: Observed Internal Consistencies (alphas) for the Main Measures Student Sample
- Table 6: Descriptive Statistics of the Main Measures Student Sample
- Table 7: Observed Internal Consistencies (alphas) for the Main Measures Community Sample
- Table 8: Descriptive Statistics of the Main Measures Community Sample
- Table 9: Correlations Between the Short Dark Triad and the Light Three Scale Student Sample
- Table 10: Correlations Between HEXACO-60, Short Dark Triad, and Light Three Scale –
 Student Sample
- Table 11: Correlations Between Short Dark Triad and Light Three Scale Scores, and Profile

 Rankings Student Sample
- Table 12: Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores, and Profile Rankings Community Sample
- Table 13: Correlations Between Short Dark Triad and Light Three Scale Scores, and Profile

 Rankings within the Teamwork Context Student Sample
- Table 14: Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores, and Profile Rankings within the Teamwork Context Community Sample
- Table 15: Correlations Between Short Dark Triad and Light Three Scale Scores, and Profile

 Rankings within the Friendship Context Student Sample
- Table 16: Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores,

- and Profile Rankings within the Friendship Context Community Sample
- Table 17: Correlations Between Short Dark Triad and Light Three Scale Scores, and Profile

 Rankings within the Financial Trust Context Student Sample
- Table 18: Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores, and Profile Rankings within the Financial Trust Context Community Sample
- Table 19: Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile
 Rankings
- Table 20: Correlations Between Short Dark Triad and Light Three Scale Scores and Female Profile Rankings
- Table 21: Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile

 Rankings Within the Teamwork Context
- Table 22: Correlations Between Short Dark Triad and Light Three Scale Scores and Female

 Profile Rankings Within the Teamwork Context
- Table 23: Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile

 Rankings Within the Friendship Context
- Table 24: Correlations Between Short Dark Triad and Light Three Scale Scores and Female

 Profile Rankings Within the Friendship Context
- Table 25: Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile

 Rankings Within the Financial Trust Context
- Table 26: Correlations Between Short Dark Triad and Light Three Scale Scores and Female

 Profile Rankings Within the Financial Trust Context

Situational Peer Preferences Within the Dark Triad and Light Three:

Peer Selection and Ranking

Conceptualizing Personality

In order to summarize human personality efficiently, several models have been proposed. One of the most widely used major models of personality is the Big Five. This model proposes five dimensions: Extraversion, Agreeableness, Openness to Experience, Neuroticism, and Conscientiousness (McCrae & John, 1992). Research has shown general support for this model across languages and cultures, leading its status as the dominant model used in personality research (McCrae, 2009; McCrae & John, 1992; Soto & Jackson, 2020).

In 2002, Lee and Ashton introduced the HEXACO model of personality structure. Similar to the Big Five, this model is also based on lexical research in several languages. The HEXACO model has been shown to capture six variables worth of the variance found in the Big Five model, suggesting a superiority of the HEXACO model of personality structure (Ashton & Lee, 2020). This model yields six dimensions: Honesty-Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to Experience (Lee & Ashton, 2005). Each of the six factors yields four narrow facets (e.g., Honesty-Humility yields Sincerity, Fairness, Greed, and Modesty). The HEXACO deviates from the Big Five model with the introduction of the Honesty-Humility factor (Lee & Ashton, 2005). The Honesty-Humility factor speaks to a willingness to manipulate, deceive, or exploit others (Lee & Ashton, 2012). Individuals who have high levels of Honesty-Humility share an unwillingness to take advantage of others, whereas those who score low on Honesty-Humility are much more inclined to behave in self-serving and unethical ways. (Lee & Ashton, 2012). For this reason, the HEXACO model of

personality shows an advantage in predicting dark personality traits and morality that the Big Five model of personality cannot capture alone.

The HEXACO reveals considerable sex differences in personality factors (Lee & Ashton, 2020). The HEXACO model captures larger sex differences than the Big Five, revealing an advantage of the HEXACO model. In an international sample, these differences are 19% larger at the factor-level and 8% at the facet-level. When isolating Western societies, these differences are even larger; 22% at the factor-level and 13% at the facet-level. The largest sex difference in HEXACO factors between men and women is in Emotionality. Women, on average, have substantially higher scores in Emotionality than men (d=0.84). This disparity was more prevalent in individualistic countries such as Denmark (1.17), the United States, United Kingdom, Canada, Germany, and the Netherlands than in collectivistic countries such as South Korea (0.41), Indonesia, Japan, India, or the Philippines. The sex differences in Emotionality are evident throughout the facet-level scores as well, with the largest difference being in Sentimentality (0.67). Another notable sex difference is in the Honesty-Humility factor scores. On average, women have higher Honesty-Humility scores than their male counterparts. At the facet-level, men and women score the most similarly in Sincerity (0.09). The remaining four factors did not identify any substantial sex differences (Lee & Ashton, 2020). Sex differences in personality may provide interesting and necessary insight into choices, preferences, and social interactions.

The Dark Triad

The Dark Triad was introduced in 2002 by Paulhus and Williams to encompass malevolent personality traits that have substantial conceptual and empirical overlap. The triad is a sub-clinical grouping of socially aversive traits, consisting of psychopathy, Machiavellianism, and narcissism. Each of these personality traits shares variance in that they are characteristically

self-focused and lacking empathy (Book et al., 2015), but the personality traits are theoretically and statistically distinguishable.

Psychopathy

Individuals high in psychopathy are callous, selfish, manipulative, irresponsible, and lack remorse for the negative impact that their antisocial actions may have on others (Paulhus & Williams, 2002). Subclinical psychopathy differs from clinical psychopathy in the lesser pervasiveness and level of functional impairment (LeBreton et al., 2006). Both clinical and subclinical psychopathic populations display similarity in their cognitions, interpersonal relationships, behaviours, and affect, though subclinical populations show less severity and frequency in dysfunctional behaviour (LeBreton et al., 2006). The characteristically deviant behaviour is apparent in social situations evidenced by academic dishonesty (Baran & Jonason, 2020), infidelity (Jonason et al., 2014), financial misbehaviour (Jones, 2014), and troubled teamwork within the workplace (O'Neill & Allen, 2014).

Machiavellianism

Those scoring high on Machiavellianism are characteristically insincere, deceitful, and exploitative (Paulhus & Williams, 2002). Individuals high in Machiavellian traits lack the impulsivity that is characteristic of psychopathic individuals and prefer strategy and planning (Furnham et al., 2013; Visser & Campbell, 2018). This lack of impulsivity allows for those with Machiavellian traits to fully deliberate the most effective strategy to achieve their goals in any particular situation, including cooperation and bargaining tactics (Geis, 1970b; Visser & Campbell, 2018). In addition to a lack of impulsivity, an important distinction between psychopathy and Machiavellianism is the strategy of alliance-building. Avoidance of conflict and alliance-building are tactics that allow individuals who are high in Machiavellianism to

manipulate and exploit those close to them (Furnham et al., 2013; Visser & Campbell, 2018). It has been shown that in a sample of male undergraduate students that those with Machiavellian traits are more accurate than those with low levels of Machiavellian traits in their evaluation of others and the differences and similarities in their personality compared to those others (Geis & Levy, 1970). Those with high scores of Machiavellianism have demonstrated an increased willingness to manipulate their peers in comparison to those scoring low on Machiavellianism (Geis, 1970a). Not only are these individuals willing to manipulate others, but they have demonstrated success in their ability to do so (Geis, 1970a).

Narcissism

Narcissistic individuals are characteristically vain, arrogant, entitled, and devalue the worth and validity of others (Paulhus & Williams, 2002). Core features of narcissism can present as strong levels of privilege, authority, attention-seeking, and entitlement (Visser & Campbell, 2018). Individuals high in narcissistic traits prioritize fame, wealth, and status more than their Dark Triad counterparts (Grapsas et al., 2020). Importance is placed on self-promotion and status and consequently, motivations for affiliation are weak and therefore social connection, intimacy, and connectedness are sacrificed (Grapsas et al., 2020). Despite this lack of connection, self-esteem has been shown to account for the positive correlation between narcissism and psychological health, lending to low levels of anxiety, sadness, and loneliness (Sedikides et al., 2004). Narcissism is the only trait of the Dark Triad to show a positive relationship with trait emotional intelligence, suggesting a greater ability to perceive, control, and experience emotion than Machiavellianism or psychopathy (Petrides et al., 2011).

The Light Three

The Light Three (Light-3; Johnson, 2018) was proposed as the antithesis to the Dark Triad in an effort to explain the personality traits that contrast the aforementioned malevolent traits. The Light Three groups together a trio of the well-established personality traits of altruism, compassion, and empathy. These traits are characteristically other-oriented and prosocial in that individuals with high levels of these traits behave in a way that is beneficial to others or society as a whole. The Light Three traits were shown to have positive correlations with emotion-related traits, which may suggest that individuals with high levels of Light Three traits make more emotion-based choices (Johnson, 2018).

Altruism

Prosocial behaviour includes acts that will be of benefit to others, such as helping, cooperating, sharing, or comforting (Batson & Powell, 2003). What distinguishes altruism from prosocial behaviour is the motivation for the act (Johnson, 2018). Altruistic behaviour is free of egoistic motives or self-interest and is entirely driven by selfless, altruistic motivation. Altruism as a trait refers to the stable and innate tendency to behave in ways that benefit others, reflecting benevolent morals and values (Johnson, 2018). Altruism is related to improved well-being, mental and physical health, longevity, and reduced aggression (Feng et al., 2020). Altruism was shown to predict better compliance with health care directives and social distancing measures during the COVID-19 pandemic in order to reduce the risk of infection to themselves and others (Alfaro et al., 2024). This exemplifies a willingness to behave in a manner that benefits others and society as a whole. During the COVID-19 pandemic, university students with high levels of altruism experienced higher levels of anxiety and depression, suggesting mental health

implications when altruistic behaviours are hindered or social need is overwhelming (Feng et al., 2020).

Compassion

Compassion reflects a tendency to feel concern toward others in distress and to tend to them during hardship (Johnson, 2018; Singer & Klimecki, 2014). A recent model of compassion argues for a multifaceted construct consisting of five key components of compassion, involving both self-compassion and other-compassion (Strauss et al., 2016). These components have a central focus on suffering: a recognition of suffering, an understanding that suffering is a universal experience, a feeling of empathy and connectedness to others in distress, a tolerance and acceptance of the uncomfortable feelings that arise when others are in distress, and a motivation to alleviate the suffering (Strauss et al., 2016). The need to assist others is so strong that someone with a high level of compassion may make sacrifices to do so or may surpass the boundary of a moral grey-area (Lupoli, Jampol, & Oveis, 2017). Compassion is associated with prosocial lying; deception for the perceived benefit of others (Lupoli, Jampol, & Oveis, 2017). In some contexts, the perception of another's compassion has been shown to decrease the trust one may have of their honesty and integrity (Lupoli et al., 2020).

Empathy

Empathy is commonly divided into two components: affective and cognitive empathy (Johnson, 2018). Affective empathy is also referred to as 'emotional contagion,' and as it implies, is concerned with the reaction to and experience of others' emotions. Cognitive empathy is concerned with the recognition and understanding of the emotions of others. Empathy is distinguishable from compassion in that empathy involves experiencing the emotions of others whereas compassion involves feeling concern for others (Johnson, 2018). Empathy has been

shown to have an indirect negative association with loneliness, suggesting that those with high levels of empathy feel less lonely throughout the lifespan (Beadle at el., 2012). Those with high levels of empathy also consider themselves to have high social skills, which may account for the lack of loneliness (Beadle et al., 2012). Those with high levels of empathy are more likely to utilize adaptive coping strategies and seek social supports for psychological well-being and this is especially true for those of low socioeconomic status (Sun et al., 2019).

Contrasting the Dark Triad and the Light Three

Each of the Dark Triad personality traits has demonstrated a significant negative association with each of the Light Three personality traits (Johnson, 2018). Of the Dark Triad traits, psychopathy shows the strongest negative associations with empathy, altruism, and compassion, whereas narcissism shows the weakest negative associations. More specifically, the strongest relationship is between psychopathy and altruism (-0.43) and the weakest relationship is between narcissism and empathy (-0.07; Johnson, 2018).

The Honesty-Humility factor has consistently been shown to be a strong predictor of the Dark Triad traits (Lee & Ashton, 2005; Lee & Ashton, 2014). More specifically, the Honesty-Humility factor has been found to account for 90% of the common variance in the Dark Triad traits (Hodson et al., 2018). Each of the Dark Triad components is characterized by low scores of Honesty-Humility, however, Machiavellianism, psychopathy, and narcissism have unique HEXACO profiles. Psychopathy is associated with low levels of Emotionality and Conscientiousness and has the strongest negative correlation with the Fairness facet of Honesty-Humility out of the triad counterparts (Howard & Van Zandt, 2020; Lee & Ashton, 2005; Lee & Ashton, 2014). Machiavellianism is associated with low levels of Agreeableness and eXtraversion. Narcissism is associated with high levels of eXtraversion and has a strong negative

correlation with the Modesty facet of Honesty-Humility (Howard & Van Zandt, 2020; Lee & Ashton, 2005; Lee & Ashton, 2014).

The Light-Three was demonstrated to have a positive association with the Honesty-Humility factor as an overall construct (Johnson, 2018). Individually, each of the three personality traits is also positively associated with the Honesty-Humility factor. Compassion demonstrated the strongest correlation, whereas empathy revealed the weakest correlation of the three components of the Light-Three (Johnson, 2018). Emotionality has also been shown to be a strong predictor of compassion, in addition to Openness to Experience (Sinclair, Topa, & Saklofske, 2020).

Contextualizing Personality

Teamwork

Effort and equitable distribution of tasks are key factors in the success or downfall of group work. A sample of full-time American employees was explored to determine the amount of effort that is exerted by individuals high on the Dark Triad in a teamwork setting by considering social loafing and team member exchange (Wilhau, 2021). Social loafing refers to the tendency to lose motivation or exert less effort to a task when the responsibility is shared among team members (Latané et al., 1979). Team member exchange refers to the sharing of effort and responsibility in a group task (Seers, 1989). This study found strong positive associations for each of the Dark Triad traits with social loafing, with the strongest relationship being between social loafing and psychopathy (0.61; Wilhau, 2021). It was also found that a high level of team member exchange mediated the relationships between social loafing and psychopathy and Machiavellianism. There was no such mediation found for narcissism (Wilhau,

2021). These findings suggest that quality of teamwork and effort can be influenced by the composition of team members and group cohesion.

Organizational citizenship behaviour refers to the positive actions, behaviours, and tasks that employees act on in addition to their obligatory roles (Szabó et al., 2018). Organizational citizenship behaviour can be divided into two categories: Organizational Citizenship Behaviour toward Individual (OCB-I) and Organizational Citizenship Behaviour toward Organization (OCB-O). OCB-I encompasses behaviour that is focused on excelling in one's job description and duties and actions include peacekeeping, cooperation, and celebration of coworker accomplishments (Organ, 1997). OCB-O focuses on behaviour that lends to a positive workplace environment such as attending company events, not participating in gossip, or not utilizing all available vacation days (Organ, 1997). In a sample of full-time employed Hungarian adults, there was a strong negative relationship between subclinical psychopathy and organizational citizenship behaviour that is beneficial to individuals (Szabó et al., 2018). In contrast, Machiavellianism was found to be a positive predictor of organizational citizenship behaviour that is beneficial to the organization. Narcissism was not found to have a significant relationship with organizational citizenship behaviour for either individual or organization (Szabó et al., 2018). A 2007 study examined the associations between organizational citizenship behaviour, altruism, and burnout in a sample of employees from a bank, city council, and university (Van Emmerik et al., 2007). The authors found a positive relationship between altruism and organizational citizenship behaviour (Van Emmerik et al., 2007). This finding suggests that altruism may facilitate behaviours that exceed the organizations expectations and the responsibilities of one's role.

In groupwork scenarios, meeting deadlines and responding in a timely fashion are important qualities of the effort being put forth. In a sample of undergraduate students from private institutions, it was found that HEXACO factors account for 24% of the variance in academic procrastination (Sokić, Qureshi, & Khawaja, 2021). Conscientiousness had a significant negative correlation with academic procrastination (-.46), but also had a significant positive correlation with academic performance (.17). Honesty-Humility was not related to academic performance but was found to be negatively correlated with academic procrastination (-.17; Sokić, Qureshi, & Khawaja, 2021). These findings suggest possible implications in an academic teamwork context. Individuals who are high in Conscientiousness may prove to be ideal partners in that they not only perform well academically, but also do not tend to procrastinate.

Aside from effort, personality can influence other factors that may be related to team performance and the teamwork environment. In a sample of undergraduate engineering students, psychopathy was found to be a strong negative predictor of team task performance (-.30) and task conflict resolution (-.30) whereas narcissism and manipulativeness were non-significant (O'Neill & Allen, 2014). This result is consistent with previous findings that individuals high in psychopathy struggle to remain on-task, communicate with others, regulate their emotional outbursts, and find compromise (O'Neill & Allen, 2014). A 2017 study of sales employees found subclinical psychopathy to be a mediating factor in the association between workplace bullying and recognition of ethical dilemmas (Valentine et al., 2017). This study utilized a vignette depicting mistreatment and workplace bullying among co-workers to assess participants' perceptions of ethical issues. It was found that subclinical psychopathy scores were associated with weak ethical reasoning and recognition (Valentine et al., 2017). These findings would

suggest that individuals with psychopathic traits would lend to a negative or hostile workplace environment, in part due to inaccurate assessments of ethicality.

Social Relationships

Previous research has assessed the associations between the Dark Triad traits and reasons for friendship formation in both student and community samples (Jonason & Schmitt, 2012). The researchers assessed preferences of peer similarity, with similarity operationalized as common interests, personality traits, and social and physical characteristics. It was found that men high in psychopathy choose same-sex friends who could offer protection (.42) as well as same-sex friends who could help them find mates (.43), but they disliked similarity regardless of sex (-.49 - -.66). Machiavellian men disliked physical attractiveness in their female friends (-.39), but all other correlations were non-significant. Women with narcissistic traits preferred high physical attractiveness in their friends (.28-.35), but disliked similarity in their same-sex friends (-.26). Men with narcissistic traits disliked friendships with kind men (-.57) and women (-.55; Jonason & Schmitt, 2012). Likewise, individuals in an undergraduate student sample that are high in narcissism have been shown to gravitate toward other narcissistic individuals in friendship pursuits (Maaß et al., 2016). All of these results could support the concept of those with Dark Triad traits having self-serving natures. Men high in psychopathy prefer friends that will help them find mates, but similarity may pose as a threat of competition for said mates. Women with high levels of narcissistic traits may prefer attractiveness in their friends because it will help attract mates.

In romantic contexts, research has shown support for positive assortative preferences in those with high levels of Dark Triad traits (Kardum et al., 2017). Positive assortative mating is the tendency to select mates who are similar to oneself. In contrast, negative assortative mating is

a selection of mates who are dissimilar to oneself. In a sample of 100 heterosexual Croatian couples, a moderate degree of positive assortative mating was found in all Dark Triad traits, but most notably with Machiavellianism. This study revealed that, despite the presence of negative or undesirable traits, these individuals preferred personality similarity. The authors reported that this similarity was present at the beginning of relationships, rather than characteristics converging or assimilating over the length of the relationship (Kardum et al., 2017). This study suggests that individuals prefer similarity in mating contexts, while Jonason and Schmitt (2012) found preference for dissimilarity in friendship. This suggests that preferences for assortative or disassortative peer selection may depend on the context and nature of the relationship.

The lack of empathy that is characteristic of Dark Triad traits may be a key factor in the impact these traits have on social relationships. A 2020 study of Turkish undergraduate students and community members found all three Dark Triad traits to be positively associated with schadenfreude and moral disengagement (Erzi, 2020). Schadenfreude refers to enjoyment of another person's pain, suffering, or misfortune. Moral disengagement is the act of distancing oneself from the ethics and morals that are socially standard and conventionally understood. Psychopathy positively predicted schadenfreude in both social and academic contexts, while narcissism positively predicted schadenfreude mostly in academic contexts. Machiavellianism positively predicted schadenfreude in socially competitive contexts and showed the strongest positive association with schadenfreude. Psychopathy was shown to predict a higher level of moral disengagement, decreasing the guilt one might experience when expressing schadenfreude (Erzi, 2020). These findings may suggest that in particular contexts, the success of a group may not be prioritized by those with high levels of Dark Triad traits.

Sex Differences in Societal Contexts

Sex differences are linked to how individuals assess each other and themselves. In a sample of Serbian elementary school students, personality traits were found to be significant predictors of academic achievement (Janošević & Petrović, 2018). The personality profile of an academically successful child differed by gender in this study. An averagely academically successful boy would have high Openness to Experience and eXtraversion scores and low Honesty-Humility scores. His female counterpart would score highly on Conscientiousness and low on eXtraversion. Personality traits were shown to be a better positive predictor of academic achievement for girls, while social status and perceived popularity were better positive predictors of academic achievement for boys. The researchers suggest that this may be due to the disparity between femininity and masculinity that is engrained early in life. The traits and behaviours that are typically associated with academic success such as being quiet in nature, organized, and wellspoken are thought to be more inherently feminine and therefore academic success may come more naturally to females. Whereas a male may be concerned about social perception if they behave in a way that is stereotypically feminine, and therefore prioritize being social and jovial over academic achievement (Janošević & Petrović, 2018). A high level of Conscientiousness and low eXtraversion may lend to the typically organized and well-spoken female student, while high levels of eXtraversion and Openness to Experience may lend to the typically social male student.

A 2023 study of Dutch university students suggested that the sex differences in academic achievement is mediated by the Big Five's Conscientiousness (Verbree, et al., 2023). The authors proposed that the lower Conscientiousness scores of the men in their sample were the mediating factor in a lower degree of achievement in higher education (Verbree, et al., 2023). This finding could have implications for peer choice in an academic teamwork context. If a

man's Conscientiousness is observed to be low, it may make him a less desirable teammate in a groupwork context.

Gender Stereotypes in Societal Contexts

Research on gender stereotyping focuses on two main themes: agency and communality (Abele et al., 2008; Hentschel, Heilam, & Peus, 2019). Agency is synonymous with masculinity, competence, or assertiveness (Brosi, et al., 2016; Hentschel, Heilam, & Peus, 2019). Agency is associated with task and goal achievement, leadership, and career success. In general, men are assumed to have more agency than women and this stereotype persists in men and women's self-characterizations (Hentschel, Heilam, & Peus, 2019). Communality is synonymous with femininity, warmth, and sensitivity. Communality implies a focus on others rather than self and is more often considered a trait of women and is reflected in men and women's self-characterizations (Hentschel, Heilam, & Peus, 2019). This aligns with the stereotypical roles of women as mothers, teachers, nurses, and general caretakers (Brosi, et al., 2016; Hentschel, Heilam, & Peus, 2019).

These stereotypes persist not only in the observations of others, but also in self-characterizations (Henstschel, Heilam, & Peus, 2019). As individuals, women consider their assertiveness and competence as leaders to be lower than men's, while men consider themselves to be less communal than women. Within single gender groupings, women tend to measure themselves to be less competent in leadership roles and less assertive than they consider women to be in general. Men tend to consider themselves to be more instrumentally competent and independent than other men. Despite these findings, the same study suggests that in some respects women have broken away from the gender stereotypes. Women did not distinguish men from women in their ratings of instrumental competence or independence. Additionally, their

self-ratings of instrumental competence and independence were comparable with the self-ratings of men on the same scales (Brosi, et al., 2016; Hentschel, Heilam, & Peus, 2019).

A 2011 nation-wide study of Americans found that individuals see less managerial potential in women but report no preference in gender for their manager (Elsesser & Lever, 2011). Individuals showed less gender bias in assessments of their real-life managers than they did in assessing hypothetical leaders. When asked to rate competence, women showed preference for their male bosses and men showed preference for their female bosses. When asked for gender preference in management, 54% of participants reported not having a preference and the remaining participants endorsed a preference for male management. There was no significant preference for female management. Rationale for this male preference focused on the negative attributes of female bosses such as incompetence as leaders or their "catty" nature, rather than the positive attributes of male bosses (Elsesser & Lever, 2011).

Stereotypes may feed one's negative opinions of gender equality, and personality might have an influence of its own. A recent study of the British public suggests that Dark Triad traits were related to negative attitudes toward feminism (Douglass et al., 2023). All three components of the Dark Triad were shown to be significant negative predictors of attitudes toward feminism. This effect was found in both men and women, but more pronounced in men (Douglass et al., 2023). In tandem with gender stereotypes, attitudes toward feminism and the equality of genders may influence peer preference in varying contexts.

The Current Study

The Dark Triad has been a considerable topic of interest, and the existing literature is vast (Dinić & Jevremov, 2021; see Furnham et al., 2013 for a 10-year review of dark triad research).

According to a search of 'the Dark Triad' on the PsycInfo database, 1,379 peer-reviewed articles

have been published since 2014. To our knowledge, however, the Dark Triad has not been explored from the perspective of peer preference in various contexts as a function of personality. Likewise, the concepts of altruism, compassion, and empathy have been substantially researched independently. Since the introduction of the Light Three, the three concepts have not been explored conjointly. We considered peer preferences in varying contexts in relation to Dark Triad and Light Three scores, respectively. More specifically, we assessed peer preferences in the contexts of teamwork, friendship, and financial trust, with specific consideration for Dark Triad and Light Three traits with the use of vignettes depicting these traits. We compared the peer choices of individuals with high Dark Triad traits with those of individuals with high Light Three traits with consideration for HEXACO traits.

Objectives, Hypotheses, and Research Questions

Extensive research has indicated that the Dark Triad is predictive of socially aversive behaviour, with implications for social relationships and teamwork (Erzi, 2020, O'Neill & Allen, 2014, Valentine et al., 2017, Wilhau, 2021). There is vast research investigating altruism, compassion, and empathy as independent concepts, but there is a lack of examination of the three in tandem as the newly coined construct, the Light Three. With the objective to explore the relationships between the Dark Triad, the Light Three, and the selection of peers in varied contexts, we hypothesized the following:

a. Based on the finding that individuals with high levels of Dark Triad traits prefer
dissimilarity in their non-romantic peers (Jonason & Schmidt, 2012), we hypothesized
that individuals who endorsed higher levels of Dark Triad traits would show preference
for individuals with higher levels of Light Three traits.

and accepting (Johnson, 2018; Singer & Klimecki, 2014), we hypothesized that individuals who endorsed higher levels of Light Three traits would show varied preference for individuals with both high levels of Dark Triad and Light Three traits.

c. Based on the suggestion that assortative peer preference may depend on the nature of a relationship (Jonason & Schmitt, 2012; Kardum et al., 2017), we hypothesized that the assigned context of teamwork, friendship, or financial trust would be related to the peer preference rankings. This speculation was exploratory, and the directionality of the relationship could not be predicted.

b. Based on previous research characterizing those with Light Three traits as prosocial

2) Based on previous findings that sex impacts the way individuals evaluate each other (Douglass et al., 2023; Elsesser & Lever, 2011; Henstschel, Heilam, & Peus, 2019), we hypothesized that the sex of the character in the vignettes would be related to the peer preference rankings. This speculation was exploratory, and the directionality of the relationship could not be predicted.

Additionally, we sought to explore the associations between the individual HEXACO traits, the Dark Triad, and the Light Three, respectively, to determine if the personality traits are distinct personality concepts rather than being the inverse of one another.

Method

Participants

Student Sample

The student sample consisted of 319 male and female undergraduate students who were recruited from both the Thunder Bay and Orillia, Ontario campuses of Lakehead University.

Preliminary analyses of the Personality Research Form – Infrequency Scale indicated that six participants were responding in a non-purposeful way and were therefore omitted from further analyses. Non-completion of the ranking task resulted in eight participants being removed from further analyses. This rendered a total of 305 participants (See Table 1 for sample characteristics). The student sample was predominantly female (79%), single (43.6%), heterosexual (55.7%), and of Caucasian/White ethnicity (75.4%). The majority of the sample were first (30.8%) or second (30.5%) year students.

Table 1
Student Sample Characteristics

	Value*
Characteristics	Sample
	(N=305)
	(1. 233)
Age, mean (SD)	22.85 (6.36)
Sex	
Female	240 (79)
Male	64 (21)
Relationship Status	
Single	133 (43.6)
Dating	46 (15.1)
In a committed relationship	87 (28.5)
Married/Common-Law	31 (10.2)
Divorced	5 (1.6)
Unlisted option	3 (1.0)
Sexual Orientation	
Heterosexual	170 (55.7)
Bisexual	26 (8.5)
Homosexual	7 (2.3)
Unlisted option	26 (8.5)

Ethnicity	
Caucasian (White)	230 (75.4)
Indigenous (First Nations, Métis, Inuit)	18 (5.9)
African-Canadian/African-American	12 (3.9)
Asian	23 (7.5)
Hispanic/Latino	1 (0.3)
East Indian	3 (1.0)
Unlisted option	18 (5.9)
Education Level	
First Year	94 (30.8)
Second Year	93 (30.5)
Third Year	59 (19.3)
Fourth Year	51 (16.7)
Unlisted option	7 (2.3)
Satisfaction with Life Score, mean (SD)	21.9 (5.9)
Minimum	5
Maximum	35

^{*} Values shown are raw frequencies (%)

Community Sample

One hundred and seventeen individuals were recruited from the Reddit community, 'r/SampleSize'. There were nine participants who did not complete the ranking task and were excluded from further analyses. Participants who answered sporadically or did not continue with the survey were also excluded from further analyses, resulting in the removal of eighteen participants. In total, twenty-seven participants were removed due to futile data. This resulted in a total of ninety participants being included in the analyses (See Table 2 for sample characteristics). The community sample was predominantly married (47.8%), employed full-time (52.2%), and of Caucasian/White ethnicity (83.3%).

Table 2

Community Sample Characteristics

	Value*
Characteristics	Sample
	(N = 90)
Age, mean (SD)	36.98 (13.72)
Sex	
Female	66 (73.3)
Male	24 (26.7)
Relationship Status	
Single	21 (23.3)
Dating	5 (5.6)
In a committed relationship	19 (21.1)
Married/Common-Law	43 (47.8)
Divorced	-
Widowed	2 (2.2)
Ethnicity	
Caucasian (White)	75 (83.3)
Indigenous (First Nations, Métis, Inuit)	1 (1.1)
African-Canadian/African-American	1 (1.1)
Asian	6 (6.7)
East Indian	2 (2.2)
Unlisted option	5 (5.6)
Employment Status	
Full-Time Employment	47 (52.2)
Part-Time Employment	13 (14.4)
Casual Employment	7 (7.8)
Unemployed	8 (8.9)

Unlisted option	15 (16.7)
Annual Income	
\$1 - \$24,999	21 (23.3)
\$25,000 - \$49,999	12 (13.3)
\$50,000 - \$74,999	26 (28.9)
\$75,000 - \$99,999	14 (15.6)
\$100,000 - \$149,999	11 (12.2)
\$150,000+	4 (4.4)

^{*} Values shown are raw frequencies (%)

Vignettes

Six vignettes were created, each depicting an individual that has high levels of one of the six personality traits (Appendices A-F). These profiles were written in first-person as though the individual being represented by the profile was introducing themselves. These vignettes were developed using items from the Short Dark Triad Scale and Light Three Scale. The vignettes were informally validated by graduate student colleagues who, when presented with each vignette individually, could accurately identify the profiles and the traits that they represented.

Measures

Demographic Questionnaire. Demographic information including the participant's age, gender, ethnicity, marital status, number of children, and attained education was collected. Participants were also asked to disclose information regarding their mental health status and use of mental health services. The student sample demographic questionnaire asked questions regarding the participant's student and program status (Appendix G). The community sample demographic questionnaire asked questions regarding the participant's career history and was generally shorter and less extensive than the student sample questionnaire (Appendix H).

60-Item HEXACO Personality Inventory – Revised (HEXACO-60; Ashton & Lee, 2009).

Personality was assessed using the HEXACO-60 (Appendix I). This is a Likert-type questionnaire that includes 60 items. There are 10 items assessing each of the six factors of the HEXACO model of personality structure: Honesty-Humility, Emotionality, eXtraversion, Agreeableness, Conscientiousness, and Openness to Experience. Each of the six dimensions is further dissected into facet-level scales, allowing for a more extensive understanding of the domains. After correcting for reverse-keyed items, means are calculated with higher scores indicating higher levels of a personality factor. This scale has demonstrated moderate internal consistency in both a college sample ($\alpha = 0.77 - 0.80$) and a community sample ($\alpha = 0.73 - 0.80$; Ashton & Lee, 2009). Participants that responded to less than 8 items of each factor were removed from analyses.

HEXACO Personality Inventory – Honesty-Humility Factor Scale (Ashton & Lee, 2009). The Honesty-Humility Factor Scale isolates the items of the HEXACO-60 that measure the Honesty-Humility factor (Appendix J). This results in a 10-item Likert-type questionnaire. This factor-level scale has demonstrated good internal consistency ($\alpha = 0.79$; Ashton & Lee, 2009). This factor scale will be given to the community sample only rather than the HEXACO-60 in an effort to combat the anticipated attrition rates that are characteristic of a community sample. Participants that responded to less than 8 items were left out of the analyses.

The Short Dark Triad (SD3; Jones & Paulhus, 2013). The SD3 is a scale used to measure traits of psychopathy, Machiavellianism, and narcissism (Appendix K). It includes 27 Likert-type items such as "I like to use clever manipulation to get my way" (Machiavellianism), "I insist on getting the respect I deserve" (narcissism), and "people who mess with me always regret it" (psychopathy). There are nine items for each trait. The arithmetic mean of each trait is calculated

after correcting for reverse-keyed items, with higher scores indicating higher levels of the trait. Each subscale has demonstrated moderate internal consistency (Machiavellianism $\alpha=0.77$; narcissism $\alpha=0.71$; psychopathy $\alpha=0.80$; Jones & Paulhus, 2013). This scale was included to use in collaboration with the HEXACO-60 scores to determine the participant's levels of Dark Triad traits. Participants who responded to less than 22 items were not included in the analyses of this measure.

The Light Three Scale (LTS; Johnson, 2018). The LTS is a 24-item Likert-type scale that measures traits of Empathy, Compassion, and Altruism (Appendix L). It includes items such as "I can tell when others are sad even when they do not say anything" (Empathy), "when others feel sadness, I try to comfort them" (Compassion), and "giving aid to the poor is the right thing to do" (Altruism). The mean for each trait is calculated after correcting reverse-coded items. A higher score indicates a higher level of a given trait. Overall, this scale has demonstrated excellent internal consistency ($\alpha = 0.88$; Johnson, 2018). Each subscale has demonstrated moderate internal consistency (Empathy $\alpha = 0.67$; Compassion $\alpha = 0.80$; Altruism $\alpha = 0.79$; Johnson, 2018). Participants who responded to less than 20 items were not included in the analyses of this measure.

The Light Three Scale 6-Item (LTS-6). The LTS-6 is a 6-item Likert-type scale that was derived from the Light Three Scale (Johnson, 2018) for the purposes of this study (Appendix M). In anticipation of attrition rates expected of a community sample, this scale was shortened in an effort to capture the Light Three traits. There are two items for each of the traits, chosen using previously established Cronbach's alpha scores (Johnson, 2018).

Peer-Choice Questionnaire (PCQ). The PCQ is a measure assessing the participant's peer preferences, as well as their reasoning for those preferences (Appendix N). The first portion of

the questionnaire has participants rank the vignettes from 1 (most suitable) to 6 (least suitable). The remaining questions utilize a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). This measure includes three sections; one section for the ranking task, one section dedicated to their top choice, and a final section dedicated to their bottom choice. The second and third sections each include 15 items that are based on the six HEXACO domains. The 'top choice' section includes items such as "I chose this person because they seem like a good leader," and "I chose this person because they seem like they are in control of their emotions". The 'bottom choice' section includes the inverse of the items; "I did not choose this person because they seem like a good leader," and "I did not choose this person because they seem like are in control of their emotions". The mean for each HEXACO domain was calculated. Higher scores in the 'top choice' section would indicate a preference for a specific domain, while higher scores in the 'bottom choice' section would indicate a dislike for a specific domain. This measure was created for the purposes of this study. The first portion was created to determine the order of desirability of the vignettes. The second portion was created to determine the peer qualities that participants prefer in their assigned context. Community participants completed a shortened version of the PCQ that only references their top choice (Appendix O). This was done in an effort to combat the anticipated attrition rates that are characteristic of a community sample. Participants that did not complete the ranking task were removed from the dataset. Satisfaction with Life Scale (SWLS; Diener et al., 1985). The SWLS is a scale used to measure subjective well-being, and more specifically, one's perceptions of their life satisfaction (Appendix P). It is a 5-item measure that uses a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree) with lower scores indicating less satisfaction with one's life. It includes items such as "in most ways my life is close to my ideal," and "if I could live my

life over, I would change almost nothing". The SWLS has exemplified good internal consistency ($\alpha = 0.61 - 0.81$; Diener et al., 1985). The sum total is calculated, with scores ranging from 5 to 35, and a score of 20 representing a neutral satisfaction with life. Those with extremely low scores are dissatisfied with life and may have a more negative outlook on life or peers. This measure was included as a demographic.

Personality Research Form – Social Desirability Scale (PRF-D; Jackson, 1984). The PRF-D (Appendix Q) is a scale used to determine the extent to which participants are responding in a socially desirable fashion. It includes 16 items and requires participants to indicate if the statements are true or false. These statements include "I did many bad things as a child," and "I am never able to do things as well as I should". The sum total is calculated after correcting for reverse-coded items. High scores suggest that the participant is responding in a socially desirable fashion. Participants who scored 3 or above were excluded from further analyses.

Personality Research Form – Infrequency Scale (PRF-I; Jackson, 1984). The PRF-I (Appendix R) is a scale used to determine if participants are responding to randomly or non-purposefully to items in the study. It includes 16 items and requires participants to indicate if the statements are true or false. Items include statements such as "I have attended school at some time during my life" and "I have never brushed or cleaned my teeth" (reverse coded). After correcting for reverse-keyed items, the sum total is calculated. Low scores indicate that participants are responding in an attentive manner. Participants who scored a total of three or higher were excluded from further analyses, resulting in the removal of six participants.

Procedure

Student Sample

Participants for the student sample were informed of the study through the use of the Sona research system and a poster on social media (Appendix S). Participants registered to participate through the Sona research system and participated online.

Interested participants were asked to complete the study via SurveyMonkey and were presented with written information (Appendix T) about the study as well as an electronic consent form (Appendix U). Participants were informed that they may withdraw from the study at any point without need for explanation and that their participation was completely voluntary. Participants began by completing a demographic questionnaire and a series of measures (HEXACO-60, SD3, LTS, SWLS). Participants then received the vignettes assigned to them. The sex of the vignette was randomly assigned at a 1:1 ratio, with all six of the vignettes having the same pronouns to encourage personality-based decisions rather than gender-based decisions. The three contexts were also randomly assigned to participants (See Table 3 for subsample characteristics). The friendship context prompt read, "You are meeting a new group of people. Who are you most likely to pursue a friendship with?". The teamwork context prompt read, "Your final course assignment will be done in pairs. This assignment is worth 50% of your grade. Who are you most likely to choose as your partner?". The peer trust context prompt read "You have recently come into a large amount of money; \$100,000! You want to be wise in how you spend or invest this money. Out of these six financial advisors, who are you most likely to entrust with your money?". Participants were presented with the PCQ on the same screen as the vignettes. Finally, the participants completed the SWLS, PRF-D, and PRF-I. The survey concluded with a debriefing form (Appendix V) and an opportunity to leave feedback for the

research team. Participants were thanked for their time and participants and granted one bonus credit for an applicable psychology course.

Table 3Student Subsample Characteristics

	Value*								
Characteristics	Friendship	Friendship	Teamwork	Teamwork	Financial	Financial			
	Context –	Context –	Context –	Context –	Trust	Trust			
	Male	Female	Male	Female	Context –	Context –			
	Pronouns	Pronouns	Pronouns	Pronouns	Male	Female			
	(n = 48)	(n = 53)	(n = 38)	(n = 53)	Pronouns	Pronouns			
					(n = 57)	(n = 56)			
Age, mean (SD)	23.70	24.47	22.03	23.53	21.46	21.91			
	(7.57)	(7.89)	(6.04)	(6.27)	(4.45)	(5.16)			
Sex									
Female	41 (85.4)	46 (86.8)	31 (81.6)	46 (86.8)	40 (70.2)	36 (64.3)			
Male	7 (14.6)	7 (13.2)	7 (18.4)	7 (13.2)	17 (29.8)	19 (33.9)			
Relationship Status									
Single	20 (41.7)	24 (45.3)	17 (44.7)	24 (45.3)	22 (38.6)	26 (46.4)			
Dating	7 (14.6)	8 (15.1)	8 (21.1)	10 (18.9)	7 (12.3)	6 (10.7)			
In a committed	13 (27.1)	13 (24.5)	10 (26.3)	9 (17.0)	22 (38.6)	20 (35.7)			
relationship									
Married/Common-	6 (12.5)	5 (9.4)	2 (5.3)	9 (17.0)	5 (8.8)	4 (7.1)			
Law									
Divorced	1 (2.1)	2 (3.8)	1 (2.6)	1 (1.9)	_	-			
Unlisted option	1 (2.1)	1 (1.9)	-	2 (3.8)	1 (1.8)	-			
Sexual Orientation									
Heterosexual	22 (45.8)	31 (58.5)	24 (63.2)	28 (52.8)	36 (63.2)	29 (51.8)			
Bisexual	6 (12.5)	5 (9.4)	4 (10.5)	2 (3.8)	2 (3.5)	7 (12.5)			
Homosexual	1 (2.1)	1 (1.9)	1 (2.6)	3 (5.7)	-	2 (3.6)			
Unlisted option	19 (39.6)	4 (7.6)	9 (23.7)	20 (37.8)	19 (33.3)	18 (32.1)			
Ethnicity									

Caucasian (White)	31 (64.6)	41 (77.4)	28 (73.7)	36 (67.9)	48 (84.2)	46 (82.1)
Indigenous (First	5 (10.4)	2 (3.8)	2 (5.2)	5 (9.4)	1 (1.8)	3 (5.4)
Nations, Métis,						
Inuit)						
African-	3 (6.3)	3 (3.8)	1 (2.6)	3 (5.7)	3 (5.3)	-
Canadian/						
African-American						
Asian	3 (6.3)	5 (9.4)	4 (10.5)	5 (9.4)	2 (3.5)	4 (7.1)
Hispanic/Latino	-	-	-	-	1 (1.8)	-
East Indian	-	-	-	2 (3.8)	-	1 (1.8)
Unlisted option	6 (12.5)	3 (5.7)	3 (7.9)	2 (3.8)	2 (3.5)	2 (3.6)
Education Level						
First Year	16 (33.3)	14 (26.4)	11 (28.9)	14 (26.4)	20 (35.1)	19 (33.9)
Second Year	13 (27.1)	16 (30.2)	12 (31.6)	17 (32.1)	16 (28.1)	19 (33.9)
Third Year	10 (20.8)	13 (24.5)	10 (26.3)	10 (18.9)	8 (14.0)	8 (14.3)
Fourth Year	7 (14.6)	8 (15.1)	5 (13.2)	11 (20.8)	12 (21.1)	8 (14.3)
Unlisted option	2 (4.2)	1 (1.9)	-	1 (1.9)	1 (1.8)	2 (3.6)
Satisfaction with Life	23.33	22.57	20.69	20.6	22.42	21.57

^{*} Values shown are raw frequencies (%)

Community Sample

Participants for the community sample were informed of the study through the use of a discussion post on the 'r/SampleSize' Reddit community. This discussion post followed the specific rules of posting within this particular community. It read "We are searching for English speaking individuals aged 18+ to complete a survey in participation of a study assessing peer preferences in various contexts. Completion of this survey will take approximately 30 minutes. You can find more information about the study, and participate if you wish, by following the link below:". The discussion post concluded with a hyperlink to the SurveyMonkey survey page and had a visual poster attached (Appendix W).

Interested participants followed the hyperlink to the SurveyMonkey page where they were presented with written information about the study (Appendix X) and an electronic consent form (Appendix Y). Participants were informed that they may withdraw from the study at any point without need for explanation and that their participation was entirely voluntary.

Participants began with a demographic questionnaire, the Honesty-Humility factor of the HEXACO-60, and the Light Three Scale – 6-Item. Participants were then presented with their assigned vignettes. Each participant received one vignette depicting a Dark Triad trait and one vignette depicting a Light Three trait. The context and personality of the vignettes were randomly assigned equally (See Table 4 for subsample characteristics). The friendship context prompt read, "You are meeting some new people. Who are you most likely to pursue a friendship with?". The teamwork context prompt read, "Your boss has assigned you an important and timeconsuming task. This project must be done in pairs. Who are you most likely to choose as a partner?". The peer trust context prompt read "You have recently come into a large amount of money; \$100,000! You want to be wise in how you spend or invest this money. Between these two financial advisors, who are you most likely to entrust with your money?". The sex of the vignettes was randomly assigned at a 1:1 ratio, with both of the vignettes having the same pronouns to encourage personality-based decisions rather than gender-based decisions. Participants were presented with PCQ on the same screen as the vignettes. The survey concluded with a debriefing form (Appendix Z) and an opportunity to leave feedback for the research team. Participants were thanked for their time and participation and given the opportunity to enter into a draw to win one of two \$50 Amazon gift cards.

Table 4Community Subsample Characteristics

	Value*									
Characteristics	Friendship	Friendship	Teamwork	Teamwork	Financial	Financial				
	Context –	Context –	Context –	Context –	Trust	Trust				
	Male	Female	Male	Female	Context –	Context –				
	Pronouns	Pronouns	Pronouns	Pronouns	Male	Female				
	(n = 9)	(n = 14)	(n = 14)	(n = 17)	Pronouns	Pronouns				
					(n = 17)	(n = 19)				
Age, mean (SD)	37.11	38.07	41.57	35.24	37.00	34.26				
	(19.11)	(16.56)	(12.85)	(8.43)	(16.96)	(10.19)				
Sex										
Female	4 (44.4)	10 (71.4)	12 (85.7)	10 (58.8)	13 (76.5)	17 (89.5)				
Male	5 (55.6)	4 (28.6)	2 (14.3)	7 (41.2)	4 (23.5)	2 (10.5)				
Relationship Status										
Single	2 (22.2)	3 (21.4)	5 (35.7)	5 (35.7) 5 (29.4)		3 (15.8)				
Dating	1 (11.1)	1 (7.1)	-	-	_	3 (15.8)				
In a committed	3 (33.3)	5 (35.7)	1 (7.1)	2 (11.8)	6 (35.3)	2 (10.5)				
relationship										
Married/Common-	3 (33.3)	5 (35.7)	7 (50.0)	10 (58.8)	7 (41.2)	11 (57.9)				
Law										
Widowed	-	-	1 (7.1)	-	1 (5.9)	-				
Unlisted option	-	-	-	-	_	-				
Ethnicity										
Caucasian (White)	8 (88.9)	10 (71.4)	12 (85.7)	14 (82.4)	13 (76.5)	18 (94.7)				
Indigenous (First	-	-	-	-	1 (5.9)	-				
Nations, Métis,										
Inuit)										
African-	-	-	-	1 (5.9)	-	-				
Canadian/										
African-American										
Asian	1 (11.1)	1 (7.1)	1 (7.1)	1 (5.9)	2 (11.8)	-				

East Indian	-	1 (7.1)	-	1 (5.9)	-	-
Unlisted option	-	2 (14.3)	1 (7.1)	-	1 (5.9)	1 (5.3)
Employment Status						
Full-Time	4 (44.4)	7 (50.0)	6 (42.9)	11 (64.7)	6 (35.3)	13 (68.4)
Employment						
Part-Time	2 (2.22)	4 (28.6)	2 (14.3)	1 (5.9)	2 (11.8)	2 (10.5)
Employment						
Casual Employment	1 (1.11)	2 (14.3)	-	1 (5.9)	2 (11.8)	1 (5.3)
Unemployed	-	-	2 (14.3)	2 (11.8)	2 (11.8)	2 (10.5)
Unlisted option	2 (2.22)	1 (7.1)	4 (28.6)	2 (11.8)	5 (29.4)	1 (5.3)
Annual Income						
\$1 - \$24,999	2 (2.22)	4 (28.6)	3 (21.4)	6 (35.3)	5 (29.4)	1 (5.3)
\$25,000 - \$49,999	1 (1.11)	3 (21.4)	4 (28.6)	-	2 (11.8)	2 (10.5)
\$50,000 - \$74,999	4 (4.44)	3 (21.4)	4 (28.6)	4 (23.5)	3 (17.6)	8 (42.1)
\$75,000 - \$99,999	1 (1.11)	2 (14.3)	1 (7.1)	3 (17.6)	2 (11.8)	5 (26.3)
\$100,000 - \$149,999	1 (1.11)	2 (14.3)	1 (7.1)	4 (23.5)	2 (11.8)	1 (5.3)
\$150,000+	-	-	1 (7.1)	-	1 (5.9)	2 (10.5)

^{*} Values shown are raw frequencies (%)

Statistical Analyses

The Statistical Package for the Social Sciences (SPSS, Version 28) was used to analyze the data. The data was first analyzed for errors and outliers, both by using descriptive analyses and manually scouring the data. Incomplete data was removed, as were individuals that did not meet the minimum responses outlined in the measures section. Then, descriptive statistics of the whole sample and subsamples were generated. It was assumed that the variables were normally distributed and that the sample was random and representative. Because the scenarios, methods, and measures were presented differently to the community and student samples, they were kept separate for the analyses.

Hypothesis One

To assess peer preferences as a function of personality, a series of bivariate correlations were performed. Correlations between Short Dark Triad or Honesty-Humility and Light Three Scale scores and the profile rankings were considered. To explore the final aspect of hypothesis one of contextual differences, these correlations were further extrapolated by assigned context.

Hypothesis Two

To assess peer preferences as a function of both personality and gender, several bivariate correlations were performed. First, the sexes of the profiles were isolated to create two samples, and further isolated by context to create six additional samples. Correlations between Short Dark Triad or Honesty-Humility and Light Three Scale scores and the profile rankings were considered.

Results

Scale Characteristics and Internal Consistency

The observed internal consistencies for the included measures of the student sample can be reviewed in Table 5. The internal consistencies for all main measures were good or acceptable, with Cronbach's alphas ranging from 0.738 to 0.916. The means and standard deviations of the student sample main measures can be observed in Table 6.

Table 5Observed Internal Consistencies (alphas) for the Main Measures – Student Sample

	Cronbach's Alpha							
Scales	Sample	Male Participants	Female Participants					
	(N = 305)		(n = 240)					
HEXACO-60	0.791	0.738	0.796					
Honesty-Humility	0.758	0.756	0.753					

Emotionality	0.806	0.757	0.751
eXtraversion	0.815	0.814	0.809
Agreeableness	0.746	0.613	0.773
Conscientiousness	0.811	0.757	0.818
Openness to	0.780	0.770	0.790
Experience			
Short Dark Triad	0.855	0.824	0.847
Psychopathy	0.752	0.593	0.762
Machiavellianism			
Narcissism			
Light Three Scale	0.916	0.893	0.916
Altruism			
Compassion			
Empathy			

Table 6Descriptive Statistics of the Main Measures – Student Sample

	Value								
Scales	San	ple		Male Par	ticipan	ts	Female Participants		
	(N=	305)		(n =	64)		(n =	240)	
	Mean (SD)	Min	Max	Mean (SD)	Min	Max	Mean (SD)	Min	Max
HEXACO-60									
Honesty	3.38 (0.65)	1.50	4.90	3.18 (0.63)	1.80	4.90	3.43 (0.65)	1.50	4.80
Emotionality	3.55 (0.69)	1.60	5.00	2.93 (0.63)	1.60	4.40	3.72 (0.60)	2.00	5.00
eXtraversion	2.95 (0.66)	1.00	4.60	3.10 (0.67)	1.00	4.30	2.90 (0.65)	1.20	4.60
Agreeableness	3.16 (0.58)	1.30	4.90	3.17 (0.49)	2.20	4.40	3.16 (0.60)	1.30	4.90
Conscientiousness	3.57 (0.64)	1.50	5.00	3.43 (0.57)	2.00	4.70	3.60 (0.65)	1.50	5.00
Openness to	3.2 (0.70)	1.50	5.00	3.20 (0.70)	1.70	4.70	3.20 (0.70)	1.50	5.00
Experience									

Short Dark Triad									
Psychopathy	2.05 (0.60)	1.00	3.67	2.38 (0.51)	1.22	3.56	1.96 (0.60)	1.00	3.67
Machiavellianism	2.83 (0.70)	1.00	4.86	3.13 (0.70)	1.43	4.86	2.75 (0.68)	1.00	4.57
Narcissism	2.58 (0.59)	1.00	4.11	2.86 (0.56)	1.11	4.11	2.50 (0.58)	1.00	4.11
Light Three Scale									
Altruism	4.15 (0.59)	2.13	5.00	3.93 (0.57)	2.38	5.00	4.21 (0.59)	2.13	5.00
Compassion	3.96 (0.63)	1.50	5.00	3.61 (0.63)	1.50	4.75	4.10 (0.60)	2.13	5.00
Empathy	3.86 (0.56)	2.50	5.00	3.64 (0.50)	2.50	4.88	3.92 (0.57)	2.50	5.00

The observed internal consistencies for the included measures of the community sample can be reviewed in Table 7. The internal consistencies for both of the main measures as a whole were acceptable, with Cronbach's alphas ranging from 0.604 to 0.748. The internal consistencies of the Light Three subscales are not acceptable and therefore, findings from these subscales should be interpreted with caution. The means and standard deviations for these measures can be reviewed in Table 8.

Table 7Observed Internal Consistencies (alphas) for the Main Measures – Community Sample

		Cronbach's Alpha							
Scales	Sample	Male Participants	Female Participants						
	(N = 90)	(n = 24)	(n = 66)						
Honesty-Humility Factor	.689	.632	.720						
Light Three Scale (6-item)	.741	.604	.748						
Altruism	.673	.706	.687						
Compassion	.802	.629	.822						
Empathy	.361	.072	.340						

Table 8Descriptive Statistics of the Main Measures – Community Sample

	Value								
Scales	Sa	mple		Male Pa	articipa	nts	Female Participants		
	(N	= 90)		(n =	= 24)		(n =	= 66)	
	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
	(SD)			(SD)			(SD)		
Honesty-Humility Factor	3.65 (.65)	1.60	5.00	3.55 (.69)	2.20	4.80	3.68 (.64)	1.60	5.00
Light Three Scale 6 Itam									
Light Three Scale – 6 Item Light Three Scale Total	4.11 (.61)	2.33	5.00	3.75 (.50	2.50	4.50	3.68 (.64)	2.33	5.00
Altruism	4.39 (.66)	2.00	5.00	4.29 (.61)	3.00	5.00	4.42 (.68)	2.00	5.00
Compassion	4.29 (.77)	1.00	5.00	3.85 (.68)	2.00	5.00	4.45 (.75)	1.00	5.00
Empathy	3.64 (.88)	1.00	5.00	3.10 (.81)	1.50	4.50	3.84 (.82)	1.00	5.00

Preliminary Findings

To determine the extent of the overlap between Dark Triad and Light Three, the correlations between the Short Dark Triad and Light Three Scale were analyzed (Table 9). As expected, the Dark Triad traits were significantly correlated with each other, with correlations ranging from .370 to .534. Likewise, the Light Three traits were strongly and significantly correlated with each other, with correlations ranging from .567 to .737. There were negative correlations between the three Dark Triad traits and the three Light Three traits. The strongest negative correlation is between Altruism and Psychopathy (-.540), followed by Psychopathy and Compassion (-.480). The weakest negative correlations were observed between Narcissism and the Light Three traits: Empathy (-.052), Compassion (-.173), and Altruism (-.223).

Table 9Correlations Between the Short Dark Triad and the Light Three Scale – Student Sample

	SD3 Psychopathy	SD3 Machiavellianism	SD3 Narcissism	LTS Altruism	LTS Compassion	LTS Empathy
SD3 Psychopathy	-	.534**	.412**	540**	480**	362**
SD3 Machiavellianism	.534**	-	.370**	413**	396**	249**
SD3 Narcissism	.412**	.370**	-	223**	173**	052
LTS Altruism	540**	413**	223**	-	.735**	.567**
LTS Compassion	480**	396**	173**	.735**	-	.737**
LTS Empathy	362**	249**	052	.567**	.737**	-

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

Correlations between HEXACO-60 with the Short Dark Triad and Light Three Scale were also explored (Table 10). Honesty-Humility shows a negative correlation with all three Dark Triad traits, and positive correlations with all Light Three traits, though this relationship is not significant for Empathy. As a whole, the Light Three is most related to Emotionality (.285-.464). The strongest correlation for Psychopathy was with Honesty-Humility (-.547) while the weakest correlation was with eXtraversion (.034). Machiavellianism showed a strong correlation with Honesty-Humility (-.580) and a weak correlation with Openness to Experience (-.057). Narcissism showed a strong positive relationship with eXtraversion (.581), a moderate negative relationship with Honesty-Humility (-.402), and a weak relationship with Conscientiousness (.051). Altruism showed a moderate correlation with Honesty-Humility (.359) while the weakest correlation was with eXtraversion (0.87). Compassion showed a modest correlation with Emotionality (.464) and a weak correlation with eXtraversion (.093). Empathy showed a smodest

^{**} Correlation is significant at the 0.01 level (2-tailed).

correlation with Emotionality (.404) and a weak correlation with Honesty-Humility (.110). These preliminary analyses were done exclusively with the student sample as the community sample did not complete the relevant measures to the same extent.

Table 10Correlations Between HEXACO-60, Short Dark Triad, and Light Three Scale – Student Sample

	SD3 Psychopathy	SD3 Machiavellianism	SD3 Narcissism	LTS Altruism	LTS Compassion	LTS Empathy
Honesty-Humility	547**	580**	402**	.359**	.309**	.110
Emotionality	254**	151**	194**	.285**	.464**	.404**
eXtraversion	.034	059	.581**	.087	.093	.135*
Agreeableness	373**	321**	139*	.212**	.258**	.137*
Conscientiousness	354**	144*	.051	.275**	.258**	.320**
Openness to Experience	049	057	122*	.293**	.198**	.166**

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

Hypothesis One

Bivariate correlations revealed several significant relationships between SD3 and LTS scores with the first through sixth position profile rankings for both the student sample (Table 11) and community sample (Table 12). Students scoring high in psychopathy showed a preference for the Machiavellian profile (.181) and a dislike for the compassion profile (-.366). Those scoring high in Machiavellianism showed an interest in the Machiavellian profile (.204), but not in the compassion profile (-.270). Individuals who scored high in narcissism showed a preference for the narcissism profile (.145) and did not like the altruism profile (-.180). Those

^{**} Correlation is significant at the 0.01 level (2-tailed).

who scored highly in altruism showed a preference for the compassion profile (.331) and a dislike for the psychopathy profile (-.164). Participants that scored highly in compassion showed a preference for the compassion profile (.374) but did not like the narcissism profile (-.232). Those who scored highly in empathy showed a preference for the compassion profile (.278) and a dislike for the narcissism profile (-.149). There were no significant findings for preference for the empathy profile. All Dark Triad traits showed a preference for Dark Triad profiles and a dislike for the Light Three profiles. Inversely, all Light Three traits showed a preference for Light Three profiles and a dislike for Dark Triad profiles.

Table 11Correlations Between Short Dark Triad and Light Three Scale Scores and Profile Rankings –

Student Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.115*	.181**	.114*	143*	336**	.034
SD3 Machiavellianism	.093	.204**	.131*	136*	270**	087
SD3 Narcissism	.093	.083	.145*	180**	144*	059
LTS Altruism	164**	149**	140*	.193**	.331**	055
LTS Compassion	123*	150**	232**	.156**	.374**	.018
LTS Empathy	126*	115*	149**	.068	.278**	.059

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

Within the community sample, there were no significant relationships found between the Honesty-Humility factor and preferences for the peer profiles. Consistent with the student

^{**} Correlation is significant at the 0.01 level (2-tailed).

sample, those who scored highly in Light Three traits showed a general preference for the profiles that reflected Light Three traits and a dislike for the profiles that were reflective of Dark Triad traits. Participants who scored high in altruism showed a preference for the compassion profile (.246) and a dislike for the psychopathy profile (-.316). Individuals who scored high in compassion also showed a dislike for the psychopathy profile (-.222).

Table 12

Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores and Profile

Rankings - Community Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
Honesty- Humility Factor	156	164	009	.201	.156	.000
LTS Total	240*	131	064	.197	.200	.069
LTS Altruism	316**	120	.034	.191	.246*	022
LTS Compassion	222*	065	061	.129	.151	.086
LTS Empathy	077	125	104	.153	.108	.081

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

Within the teamwork context, some significant relationships can be observed in the student sample (Table 13). Those who scored high in psychopathy showed a preference for the psychopathy profile (.280) but a dislike for the compassion profile (-.367). Participants who scored high in Machiavellianism did not show any significant preferences but disliked the compassion profile (-.344). Individuals who scored high in narcissism did not show a significant preference for a profile but disliked the altruism profile (-.239). Those who scored high in

^{**} Correlation is significant at the 0.01 level (2-tailed).

altruism showed a moderate preference for both the compassion (.351) and altruism (.321) profiles and disliked the psychopathy profile (-.238). Participants who scored high in compassion showed preference for the compassion profile (.356) but did not like the psychopathy profile (-.270). Individuals who scored high in empathy showed a preference for the compassion profile (.228) but disliked the psychopathy profile (-.240). Within the teamwork context, all Light Three traits showed a preference for other Light Three traits, namely altruism and compassion. All Light Three traits showed a dislike for the empathy profile. All Dark Triad traits showed a dislike for Light Three traits, but most specifically compassion and altruism.

Table 13Correlations Between Short Dark Triad and Light Three Scale Scores and Profile Rankings within the Teamwork Context – Student Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.280**	.168	027	246*	367**	.150
SD3 Machiavellianism	.139	.187	.024	014	344**	005
SD3 Narcissism	.169	069	.195	239*	148	.018
LTS Altruism	238*	120	081	.321**	.351**	223*
LTS Compassion	270*	098	148	.244*	.356**	055
LTS Empathy	240*	039	029	.160	.228*	081

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

Within the teamwork context in the community sample, no significant relationships were observed (Table 14).

^{**} Correlation is significant at the 0.01 level (2-tailed).

Table 14

Correlations Between Honesty-Humility and Light Three 6-Item Scale Scores and Profile

Rankings within the Teamwork Context – Community Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
Honesty- Humility Factor	139	.060	011	190	.021	.226
LTS Total	174	.013	.032	.005	053	.174
LTS Altruism	075	.063	.198	.082	065	203
LTS Compassion	229	.143	071	057	.050	.189
LTS Empathy	092	159	028	002	106	.355

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

Within the friendship context, a few significant relationships emerged (Table 15). Those who scored high in psychopathy showed a preference for the Machiavellian profile (.278) and dislike for the compassion profile (-.372). Participants who scored high in Machiavellianism or narcissism did not show any significant interest or dislike for the profiles. Individuals who scored high in altruism showed a preference for the compassion profile (.298) and a dislike for the Machiavellianism profile (-.226). Those who scored high in compassion showed a preference for the compassion profile (-.315). Participants who scored high in empathy showed a preference for the compassion profile (.258). Within the friendship context, there were no significant relationships found for the psychopathy, altruism, or empathy profiles. On average, all Dark Triad traits showed a preference for Dark Triad profiles

^{**} Correlation is significant at the 0.01 level (2-tailed).

and a dislike for Light Three profiles while all Light Three traits showed a preference for Light Three profiles and a dislike for the Dark Triad profiles.

Table 15Correlations Between Short Dark Triad and Light Three Scale Scores and Profile Rankings within the Friendship Context – Student Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	006	.278**	.111	062	372**	.009
SD3 Machiavellianism	.015	.142	.163	163	069	172
SD3 Narcissism	004	.074	.095	069	081	105
LTS Altruism	.006	226*	132	.126	.298**	049
LTS Compassion	.024	085	315**	.054	.352**	.074
LTS Empathy	.032	109	168	119	.258**	.145

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

Within the friendship context, many significant relationships were revealed in the community sample (Table 16). A negative relationship can be seen between the Honesty-Humility factor and the psychopathy profile (-.492), indicating that those who scored low in Honesty-Humility showed a preference for the psychopathy profile. A positive relationship can be observed between the Honesty-Humility factor and the altruism profile (.521), indicating that those who scored low in Honesty-Humility showed a dislike for the altruism profile. Participants who scored high in general Light Three traits showed a preference for the altruism profile (.595) and a dislike for both the narcissism (-.624) and Machiavellian (-.267) profiles. Individuals who

^{**} Correlation is significant at the 0.01 level (2-tailed).

scored high in altruism showed a preference for the altruism profile (.671), and a dislike for both the psychopathy (-.601) and narcissism (-.422) profiles. Those who scored high in compassion showed a preference for both the altruism (.495) and empathy (.420) profiles, and a dislike for both the narcissism (-.546) and Machiavellian (-.519) profiles. Participants who scored high in empathy showed a dislike for the narcissism profile (-.540).

Table 16

Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores and Profile

Rankings within the Friendship Context – Community Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
Honesty- Humility Factor	492*	131	104	.521*	.261	159
LTS Total	327	467*	624**	.595**	.262	.308
LTS Altruism	603**	237	422*	.671**	.399	.020
LTS Compassion	241	519*	546**	.495*	.122	.420*
LTS Empathy	098	360	540**	.350	.225	.238

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

Within the financial trust context, some significant relationships can be observed (Table 17). Those who scored high in psychopathy showed a preference for the narcissism profile (.210) and a dislike for the compassion profile (-.297). Participants who scored high in Machiavellianism showed a preference for the Machiavellianism profile but did not like the compassion profile (-.361). Individuals who scored high in narcissism did not show any significant preferences but disliked the altruism profile (-.253). Those who scored high in

^{**} Correlation is significant at the 0.01 level (2-tailed).

altruism showed a preference for the compassion profile (.330) but did not like the psychopathy profile (-.249). Participants who scored high in compassion showed a preference for the compassion profile (.390) and a dislike for the narcissism profile (-.208). Individuals who showed a preference for the compassion profile (.290) but did not like the psychopathy profile (-.190). All of the Dark Triad traits showed a preference for the Dark Triad profiles and a dislike for the Light Three profiles. All of the Light Three traits showed a preference for the Light Three profiles and a dislike for the Dark Triad profiles.

Table 17

Correlations Between Short Dark Triad and Light Three Scale Scores and Profile Rankings
within the Financial Trust Context – Student Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.091	.111	.210*	146	297**	016
SD3 Machiavellianism	.152	.262**	.160	195*	361**	076
SD3 Narcissism	.157	.136	.127	253**	143	042
LTS Altruism	249**	107	170	.158	.330**	.056
LTS Compassion	144	186*	208*	.174	.390**	.009
LTS Empathy	190*	122	178	.140	.290**	.080

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

Within the community sample, a few significant relationships emerged (Table 18). A negative relationship between the Honesty-Humility factor and the Machiavellian profile emerged (-.353), indicated that individuals who scored low in Honesty-Humility showed a

^{**} Correlation is significant at the 0.01 level (2-tailed).

preference for the Machiavellianism profile. Those who scored high in general Light Three traits showed a preference for the compassion profile (.413). Participants who scored high in altruism showed a preference for the compassion profile (.460), and a dislike for the psychopathy profile (-.446). Those who scored high in compassion showed a preference for the compassion profile (.368). Individuals who scored high in empathy showed a dislike for the empathy profile (-.333). Unlike the student sample, the community sample showed varied preferences rather than preference for similarity in the financial trust context. However, many of these relationships are not significant and should be interpreted with caution.

Table 18

Correlations Between Honesty-Humility Factor and Light Three 6-Item Scale Scores and Profile

Rankings within the Financial Trust Context – Community Sample

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
Honesty- Humility Factor	.015	353*	.008	.251	.206	029
LTS Total	269	166	.120	.160	.413*	241
LTS Altruism	446*	240	.109	.060	.460**	.084
LTS Compassion	203	173	.193	.084	.368*	273
LTS Empathy	067	031	.020	.210	.218	333*

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

Hypothesis Two

Bivariate correlations revealed several significant relationships when assessing the difference in preferences based on the sex of the vignette. Correlations between Short Dark Triad

^{**} Correlation is significant at the 0.01 level (2-tailed).

and Light Three Scale scores with male profile rankings are reported in Table 19. Correlations between Short Dark Triad and Light Three Scale scores with female profile rankings are reported in Table 20. Hypothesis Two was only analyzed using the student sample as the community sample was too small to analyze six subsamples with any significance.

Individuals who scored high in psychopathy showed a dislike for both the male (-.280) and female (-.397) compassion profiles. These individuals also showed a dislike of the female altruist profile (-.187), but a preference for the female psychopathy (.155) and Machiavellian (.221) profiles. Participants who scored high in Machiavellianism showed an interest in the male (.194) and female (.216) Machiavellian profiles, as well as the female psychopathy profile (.175). They also showed a dislike for the female altruism profile (-.164) and the male (-.260) and female (-.280) compassion profiles. Individuals who scored high in narcissism showed a preference for the male narcissism profile (.218) but disliked the male altruism profile (-.221). They showed no significant preferences or dislikes of the female profiles.

Individuals who scored high in altruism showed a preference for the male (.289) and female (.407) compassion profiles, as well as the male (.184) and female (.201) altruism profiles. They also showed a dislike for the male psychopathy profile (-.217) and female Machiavellian profile (-.211). Participants who scored high in compassion showed a preference for the male (.289) and female (.447) compassion profiles and the male altruism profile (.202). They showed a dislike for the male narcissism profile (-.326) and the female Machiavellian (-.194) and psychopathy (-.163) profiles. Individuals who scored high in empathy showed a preference for both the male (.227) and female (.323) compassion profiles, and disliked the male narcissism profile (-.208).

Table 19Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile

Rankings

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.072	.143	.116	098	280**	.018
SD3 Machiavellianism	012	.194*	.167*	102	260**	072
SD3 Narcissism	.087	.119	.218**	221**	140	164
LTS Altruism	217*	079	139	.184*	.247**	020
LTS Compassion	068	098	326**	.202*	.289**	.054
LTS Empathy	151	069	208*	.077	.227**	.115

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

Table 20

Correlations Between Short Dark Triad and Light Three Scale Scores and Female Profile
Rankings

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.155*	.221**	.106	187*	397**	.054
SD3 Machiavellianism	.175*	.216**	.096	164*	280**	100
SD3 Narcissism	.097	.053	.083	149	148	.034
LTS Altruism	124	211**	140	.201*	.407**	087

^{**} Correlation is significant at the 0.01 level (2-tailed).

LTS Compassion	163*	194*	153	.120	.447**	013
LTS Empathy	107	154	103	.060	.323**	.012

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

Within the teamwork context, few significant relationships emerged which can be observed in Tables 21 and 22. Those who scored high in psychopathy showed a preference for the female psychopathy profile (.281), and a dislike for the female altruism profile (-.347) and both the male (-.356) and female (-.381) compassion profiles. Participants who scored high in Machiavellianism showed a strong dislike for the male compassion profile (-.509) but no significant relationships emerged for the female profiles. Individuals who scored high in narcissism showed a lack of preference for the female compassion profile (-.281), but no significant relations emerged for the male profiles. Those who scored high in altruism showed a preference for the female altruism profile (.428), and a preference for both the male (.381) and female (.333) compassion profiles. Participants who scored high in compassion showed a preference for the female altruism profile (.283) and both the male (.345) and female (.367) compassion profiles. Individuals who scored high in empathy showed no significant preferences but did indicate a dislike for the male psychopathy profile (-.332).

Table 21Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile
Rankings within the Teamwork Context

	Psychopathy	Machiavellianism	Narcissism	Altruism	Compassion	Empathy
	Profile	Profile	Profile	Profile	Profile	Profile
SD3 Psychopathy	.275	.245	137	113	356*	.090

^{**} Correlation is significant at the 0.01 level (2-tailed).

SD3 Machiavellianism	.191	.237	005	.162	509**	090
SD3 Narcissism	.232	047	.126	216	.050	243
LTS Altruism	269	178	.006	.201	.381*	248
LTS Compassion	322	168	096	.194	.345*	.029
LTS Empathy	332*	025	.043	.211	.162	145

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

Table 22

Correlations Between Short Dark Triad and Light Three Scale Scores and Female Profile

Rankings within the Teamwork Context

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.281*	.094	.047	347*	381**	.209
SD3 Machiavellianism	.109	.158	.036	118	257	.051
SD3 Narcissism	.128	099	.233	237	281*	.201
LTS Altruism	213	062	146	.428**	.333*	212
LTS Compassion	234	033	182	.283*	.367**	118
LTS Empathy	186	060	105	.160	.269	025

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

Within the friendship context, some significant relationships can be observed in Tables 23 and 24. Those who scored high in psychopathy showed a preference for the female

^{**} Correlation is significant at the 0.01 level (2-tailed).

^{**} Correlation is significant at the 0.01 level (2-tailed).

Machiavellian profile (.432), but a disinterest in the male (-.337) and female (-.414) compassion profiles. Participants who scored high in Machiavellianism or narcissism did not show any significant likes or dislikes in their profile rankings, regardless of the assigned sex of the profile. Individuals who scored high in altruism showed a preference for the female compassion profile (.324). Those who scored high in compassion showed a preference for both the male (.345) and female (.358) compassion profiles, and a dislike for the male narcissism profile (-.449). Participants who scored high in empathy showed a preference for the female compassion profile (.355) and a dislike for the male narcissism profile (-.322).

Table 23

Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile

Rankings within the Friendship Context

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.074	.107	.169	101	337*	.081
SD3 Machiavellianism	051	.119	.166	181	071	093
SD3 Narcissism	029	.069	.253	258	177	048
LTS Altruism	157	160	178	.274	.263	123
LTS Compassion	.143	033	449**	.180	.345*	019
LTS Empathy	.025	.027	322*	012	.128	.206

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

^{**} Correlation is significant at the 0.01 level (2-tailed).

Table 24

Correlations Between Short Dark Triad and Light Three Scale Scores and Female Profile

Rankings within the Friendship Context

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	047	.432**	.056	023	414**	080
SD3 Machiavellianism	.066	.171	.165	144	069	271
SD3 Narcissism	019	.074	057	.118	.012	128
LTS Altruism	.108	268	092	001	.324*	013
LTS Compassion	039	126	183	074	.358**	.153
LTS Empathy	.078	188	043	217	.355**	.059

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

Within the financial trust context, significant relationships can almost exclusively be observed in relation to the female profiles. These correlations are reported in Tables 25 and 26. Participants who scored in psychopathy showed a dislike for the female compassion profile (-.424). Those who scored high in Machiavellianism showed a preference for the female psychopathy (.372) and Machiavellian (.300) profiles, but a dislike for the female compassion profile (-.475). Individuals who scored high in narcissism showed a dislike for the female altruism profile (-.297). Participants who scored high in altruism showed a strong preference for the female compassion profile (.593) and a dislike for the female Machiavellian profile (-.307). Those who scored high in compassion showed a preference for the female compassion profile (.571) and a dislike for the male narcissism profile (-.385) and the female Machiavellian profile

^{**} Correlation is significant at the 0.01 level (2-tailed).

(-.302). Individuals who scored high in empathy showed a preference for the female compassion profile (.378).

Table 25

Correlations Between Short Dark Triad and Light Three Scale Scores and Male Profile

Rankings within the Financial Trust Context

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	051	.076	.221	093	198	021
SD3 Machiavellianism	094	.233	.260	221	252	032
SD3 Narcissism	.095	.162	.186	195	153	120
LTS Altruism	245	.092	168	.131	.090	.118
LTS Compassion	020	038	385**	.237	.201	.072
LTS Empathy	161	048	229	.095	.213	.141

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

Table 26

Correlations Between Short Dark Triad and Light Three Scale Scores and Female Profile

Rankings within the Financial Trust Context

	Psychopathy Profile	Machiavellianism Profile	Narcissism Profile	Altruism Profile	Compassion Profile	Empathy Profile
SD3 Psychopathy	.241	.168	.216	240	424**	.011
SD3 Machiavellianism	.372**	.300*	.079	205	475**	114

^{**} Correlation is significant at the 0.01 level (2-tailed).

SD3 Narcissism	.207	.117	.081	297*	135	.036
LTS Altruism	244	307*	177	.207	.593**	026
LTS Compassion	253	302*	069	.130	.571**	047
LTS Empathy	218	198	129	.189	.378**	.006

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

In general, the female psychopathy profile was preferred by those scoring high in psychopathy and Machiavellianism, but no preferences were shown for the male psychopathy profile. The female Machiavellianism profile was preferred by those scoring high in psychopathy and Machiavellianism, but no preferences were shown for the male Machiavellianism profile. The male narcissism profile was preferred by those scoring high in Machiavellianism and narcissism, but no preferences were shown for the female narcissism profile.

In general, the male altruism profile was preferred by those scoring high in altruism and compassion and the female altruism profile was preferred by those scoring high in altruism. Both the male and female compassion profiles were preferred by those scoring high in any of the Light Three traits. The empathy profile was not preferred regardless of sex.

The female psychopathy profile was preferred by those scoring high in psychopathy for the teamwork context and those scoring highly in Machiavellianism for the financial trust context. The male psychopathy profile was not preferred in any of the contexts. The female Machiavellianism profile was preferred by those scoring highly in psychopathy for the friendship context and by those scoring highly in Machiavellianism for the financial trust context. The male Machiavellianism profile was not preferred in any of the contexts. Neither the female nor the male narcissism profiles were preferred in any context.

^{**} Correlation is significant at the 0.01 level (2-tailed).

The female altruism profile was preferred by those scoring highly in altruism and compassion for the teamwork context. The male altruism profile was not preferred in any context. The female compassion profile was preferred by those scoring high in altruism and compassion for the teamwork context and those scoring high in any of the Light Three traits for the friendship and financial trust contexts. The male compassion profile was preferred by those scoring high in altruism and compassion for the teamwork context and those scoring high in compassion for the friendship context. Again, the empathy profile was not preferred in any context regardless of sex.

Discussion

This study explored the relationships between various concepts of personality and peer preference. More specifically, this study focused on the differences between the peer preferences of those with high levels of Dark Triad traits and the peer preferences of those with high levels of Light Three traits. The findings of this study suggest that there are significant relationships between personality and peer preferences.

Distinguishing the Dark Triad and Light Three

From these results, the commonality amongst the Light Three traits is high Emotionality (.285 to .464) and Conscientiousness (.258 to .320), while the commonality among the Dark Triad traits is low Honesty-Humility (-.402 to -.580), as expected (Hodson et al., 2018; Lee & Ashton, 2005; Lee & Ashton, 2014). Independently, the traits also appear to be distinct from one another in their HEXACO profiles. The HEXACO and Dark Triad correlates were consistent with previous findings (Lee & Ashton, 2005; Lee & Ashton, 2014). High scores of psychopathy were correlated to low scores of Honesty-Humility (-.547) and moderately low scores of Agreeableness (-.373) and Conscientiousness (-.354). High scores of Machiavellianism were

correlated to low scores of Honesty-Humility (-.580) and moderately low Agreeableness (-.321). High scores of narcissism were correlated to low scores of Honesty-Humility (-.402) and high scores of eXtraversion (.581). High scores of altruism were correlated to moderate scores of Honesty-Humility (.359), Emotionality (.285), Agreeableness (.212), Conscientiousness (.275), and Openness to Experience (.293). High scores of compassion were correlated to high scores of Emotionality (.464) and moderate scores of Honesty-Humility (.309). High scores of empathy were correlated to high Emotionality (.404) and moderate levels of Conscientiousness (.320). This speaks to the Light Three and Dark Triad traits being distinct concepts rather than simply the inverse of one another.

Hypothesis One

Hypothesis 1. A)

The results of this investigation do not support the hypothesis that those who endorsed higher levels of Dark Triad traits would show preference for those with higher Light Three traits. Rather, those who endorsed higher levels of Dark Triad traits showed a general preference for the vignettes depicting Dark Triad traits. Furthermore, the negative relationship between those with high levels of Dark Triad traits and those with high levels of Light Three traits was larger than the positive relationship between those with high levels of Dark Triad traits. This would suggest that the preference to work with similar individuals is not as strong as the preference to not work with dissimilar individuals.

Hypothesis 1. B)

The results of this investigation do not support the hypothesis that those who endorsed higher levels of Light Three traits would show varied preference for Dark Triad and Light Three traits. Individuals who endorsed high levels of Light Three traits showed a preference for the

vignettes depicting Light Three traits and a disinterest in matching with the vignettes depicting the Dark Triad traits. The positive relationship between those with high levels of Light Three traits was larger than the negative relationship between those with high levels of Light Three traits and those with high levels of Dark Triad traits. This suggests that unlike those with high levels of Dark Triad traits, the preference to work with similar individuals is stronger than the preference to not work with dissimilar individuals.

Hypothesis 1. C)

The results of this investigation support the hypothesis that context impacts peer preferences. The psychopathy profile was preferred by those who scored highly in psychopathy for the teamwork context by the student sample but not for any other context. There was a positive relationship between the psychopathy profile and the Honesty-Humility factor for the community sample in the friendship context, suggesting that those who scored low in Honesty-Humility preferred the psychopathy profile within this context. The Machiavellianism profile was preferred by those who scored high in psychopathy in the student sample and those who scored low in Honesty-Humility in the community sample for the friendship context. The Machiavellianism profile was also preferred by those who scored high in Machiavellianism in the student sample and those who scored low in Honesty-Humility in the community sample for the financial trust context. The Machiavellianism profile was not preferred nor disliked in the teamwork context. The narcissism profile was preferred by those who scored high in psychopathy in the student sample for the financial trust context. This profile was not preferred in any other context.

The altruism profile was preferred by those who scored highly in compassion and altruism in the student sample for the teamwork context. The altruism profile was also preferred

by those who scored highly in compassion and altruism in the community sample for both the friendship and financial trust contexts. The compassion profile was preferred by those who scored highly in altruism, compassion, and empathy in the student sample for the teamwork and financial trust contexts. The compassion profile was also preferred by those who scored high in altruism and compassion in the community sample for the friendship and financial trust contexts. Additionally, those who scored highly in altruism and empathy in the student sample preferred the compassion profile for the friendship context. The empathy profile was preferred by those who scored high in compassion for the community sample in the friendship context.

Hypothesis Two

The results of this investigation support the hypothesis that the sex of the profile was related to peer preferences. Differences can be seen at both a general level and a contextual level. The female profiles were preferred more frequently than the male profiles. In considering sex alone, preference was shown most strongly for the female vignettes in the financial trust context, followed by the friendship context, and lastly the teamwork context. The vignette depicting a male high in compassion was the only male profile that was preferred in any context, specifically friendship and teamwork.

Limitations

This study would benefit from a larger sample size in order to confidently compare both the contexts of the scenarios and the effects of sex and gender on peer choices. This study was based entirely on self-report and therefore may include exaggerated or understated answers.

Additionally, the study was completed solely online and external factors could not be controlled.

The profiles presented in this study were hypothetical and did not present an entire person or facets of personality beyond the Dark Triad or Light Three traits. The applicability of these

findings in a real-life scenario may be impacted by a multitude of unassessed factors including but not limited to physical appearance, cadence and tone, confidence, or pre-existing biases.

In an effort to combat anticipated attrition in the community sample, the Light Three Scale was shortened by selecting items based on previously established factor analyses. This particular combination of items was not independently established prior to data collection. Future researchers may wish to find alternative scales to use in their entirety or to establish the validity of the shortened version prior to data collection.

Future Research

This research presented an interesting introduction to the impact of personality on contextual peer preference and could be expanded upon. Additional contexts would grow the existing knowledge of personality and peer preference. Contexts such as child-rearing or child-care, healthcare, or romantic relationships could elaborate on the findings of this study.

Future research could explore the potential impact of additional factors on peer preference. As suggested by the findings in this study, sex of the profile impacted the preferences despite having identical wording. Including a profile picture with each description or a voice clip could explore the potential implications of physical appearance, race, or assessments of mate value.

As this study focused on the sex of the vignette profiles, future studies may wish to consider the sex of the participant as well. Considering the sex distribution of the study sample, the preferences for female profiles may reflect same-sex preferences rather than personality preferences. Additionally, future researchers may wish to consider participant attitudes toward feminism and gender equality to better understand contextual preferences.

By utilizing both a student and community sample we intended to capture peer preferences at different stages of life. A longitudinal study may best capture the changes of peer preferences along the lifespan. As previously mentioned, the community and student samples were analyzed separately due to the varying methodology for the samples. These findings would benefit from an inclusive sample, analyzing both student and community participants together.

Conclusion

The main purpose of this study was to explore the associations between personality and peer preferences. The interest was in both the personality of the peer and the personality of the participant, to gain a better understanding of the role of personality in social relationships and choices. These relationships were explored through the lens of the Dark Triad and Light Three traits.

The results of this study suggest that personality is meaningfully related to peer preference and may therefore have a meaningful influence on social interactions and the way people navigate the world. From the findings of this study, it can be suggested that in general, those with high levels of Dark Triad traits prefer other individuals with high levels of Dark Triad traits in most situations. Likewise, those with high levels of Light Three traits prefer peer with high levels of Light Three traits in most contexts. Conversely, those with high levels of Dark Triad traits showed a dislike for being paired with individuals with high levels of Light Three traits. Similarly, individuals with high levels of Light Three traits showed a dislike for being matched with those with high levels of Dark Triad traits. This shows support for the idea of assortative peer preference in various contexts, beyond romantic situations (Kardum et al., 2017).

Analysis of the sex of the profiles revealed variation in preferences. The trend of preference for similarity remained but the profiles that were preferred varied by sex, and this is

especially true for those with high levels of Dark Triad traits. Those with high levels of Dark Triad traits showed a preference for the male narcissism profile and the female psychopathy and Machiavellian profiles. Those with high levels of Light Three traits showed a preference for both the male and female compassion profiles, and the male altruism profile.

At the contextual level, the differences in preferences were more specific. These preferences were more varied for those with high levels of Dark Triad traits than those with high levels of Light Three traits. This may introduce an interesting conversation about the attitudes toward feminism and gender equality that those with Dark Triad traits are thought to hold (Douglass et al., 2023). In general, those with high levels of Light Three traits showed a like for the Light Three profiles that was stronger than their dislike for the Dark Triad profiles. Conversely, those with high levels of Dark Triad traits showed a stronger dislike for the Light Three profiles than like for the Dark Triad profiles. Consistent with this finding, those with high levels of Dark Triad traits displayed more significant relationships with those they did not want to partner with than those they did. Those who endorsed high levels of Dark Triad traits showed a dislike for the compassion profile regardless of gender in all contexts save and except for the male compassion profile in the financial trust context. In direct reflection, those with high levels of Light Three traits showed preference for the compassion profile regardless of gender in all contexts save and except for the male compassion profile in the financial trust context. When considering preferences of those with high levels of Dark Triad traits, significant relationships were only found for the female Dark Triad profiles in all contexts. While Douglass and colleagues (2023) found that those with high levels of Dark Triad traits may have negative attitudes toward feminism and gender equality, those attitudes may not supersede the other factors that one considers in their peer preferences and choices, such as personality traits.

However, this finding may be partially explained by the disproportionate sex ratio of our sample and could be further explored with a focus on participant sex as a variable.

The results of this study add compelling insight to the existing literature regarding personality and social contexts. Despite previous findings that those with Dark Triad traits may dislike similarity in their peers (Jonason & Schmitt, 2012), the findings of this study suggest that individuals with high levels of Dark Triad traits or Light Three traits both show positive assortative preferences in their peers. Future research could expand upon these findings by exploring a multitude of other factors or contexts to further elaborate on the fascinating relationship between personality and peer choice. A deeper understanding of this relationship will encourage a more thorough grasp on the impact personality has on each and every experience in daily life.

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Appendix A

Psychopathy Vignette – Male Pronouns

I like taking risks and seeking thrills, even if it gets me in trouble. People sometimes say that I'm cold-hearted, but I'm just taking advantage of opportunities that will benefit me. I make fast decisions and enjoy gambling and fast cars.

Appendix B

Machiavellianism Vignette

Everyone is manipulative and selfish, so I always put my best interests first and will make any situation work to my advantage. I do whatever it takes to succeed. It's important to get along with others so that they can be useful to you when you need them.

Appendix C

Narcissism Vignette

I know that I am the best fit for whatever it is that you are looking for. I am more talented than most people and I am naturally good at various things. I am a good leader because I am smart, successful, and impressive.

Appendix D

Altruism Vignette

When given the opportunity, I enjoy aiding others who are in need and often put other people's needs above my own. I like giving directions to strangers who are lost or giving money to the poor. I think that children should be taught about the importance of helping others.

Appendix E

Compassion Vignette

I would describe myself as a pretty soft-hearted person. When I see someone get hurt, I tend to remain calm and try to be caring toward that person. It's important to recognize that everyone has weaknesses, and nobody is perfect.

Appendix F

Empathy Vignette

People I am with have a strong influence on my mood; I am happy when I am with a cheerful group and sad when the others are glum. I find it easy to put myself in somebody else's shoes and can get caught up in other people's feelings easily.

Appendix G

Demographic Questionnaire – Student Sample

. What is your age?
2. What is your biological sex?
Male
Female
Neither
3. What is your preferred gender designation?
I. How do you identify your sexual orientation? (Optional)
5. What is your ethnic identity?
Caucasian (White)
Indigenous (First Nation, Métis, Inuit)
African-Canadian/African-American
Hispanic/Latino
East Indian
Asian
Unlisted option:

6. What is your current relationship status?
Single
Dating
In a committed relationship
Married/Common-Law
Divorced
Widowed
Unlisted option:
7. How many children do you have?
0
1
2
3
4 +
I do not plan to have children
8. What is your employment status?
Full-time employment
Part-time employment
Casual employment
Unemployed
Unlisted option:
9. What type of student are you?
International student
Domestic student
10. What is your education status?
Full-time student
Part-time student

11. What year of university are you in?
First year
Second year
Third year
Fourth year
Unlisted option:
13. Have you declared a major?
Yes
No
Not Applicable
14. If yes, what is your major?
15 What is seein CDA (Cooks Daint Assessed)
15. What is your GPA (Grade Point Average)
0% - 49%
50% - 59%
60% - 69%
70% - 79%
80% - 89%
90% - 100%
I am not sure
16. Please indicate if you have ever received a formal diagnosis for any psychological,
emotional, or psychiatric conditions:

17. a) Are you currently receiving counselling or medication for a psychological, emotional, or

psychiatric	condition(s)?
Yes	
No	
I am wa	uiting to receive treatment or assistance
17. b) If yes	s, please check all that apply:
Antidepr	ressant medication
Antianxi	iety medication
Antipsyc	chotic medication
ADHD n	medication
Individu	al counselling
Group co	ounselling
Unlisted	option:

Demographic Questionnaire – Community Sample

1. What is yo	ır age?	
2. What is yo	r biological sex?	
Male		
Female		
Neither		
3. What is yo	r preferred gender designation?	
4 What is yo	ur ethnic identity?	
	n (White)	
	us (First Nation, Métis, Inuit)	
	Canadian/African-American	
Hispanic		
East Indi		
Asian		
	option:	
	<u> </u>	
5. What is yo	ur current relationship status?	
Single		
Dating		
In a com	mitted relationship	
Married/	Common-Law	
Divorce		
Widowe	l	
	option:	

0
1
2
3
4 +
I do not plan to have children
7. What is the highest level of education that you have attained?
8. Are you currently pursuing additional education?
Yes
No
I plan to
9. What is your employment status?
Full-time employment
Part-time employment
Casual employment
Unemployed
Unlisted option:
10. a) If employed, how long have you been employed at your current company?
10. b) If unemployed, how long have you been unemployed?

11. a) Have you ever been promoted?

Yes, more than once
Yes, once
No
Not Applicable
11. b) If desired, please specify: (Optional)
<u> </u>
12. a) Has your employment ever been terminated?
Yes, more than once
Yes, once
No
Not Applicable
12.1) IC 1. ' 1 1 'C (O t'
12. b) If desired, please specify: (Optional)
13. How many times have you changed jobs in the last 10 years? (Optional)
14. What is your estimated narrounal annual in some?
14. What is your estimated personal annual income?
\$1 - \$24,999
\$25,000 - \$49,999
\$50,000 - \$74,999
\$75,000 - \$99,999
\$100,000 - \$149,999
\$150,000+

15. Please indicate if you have ever received a formal diagnosis for any psychological,

emotional, or psychiatric conditions:		

Appendix I

60-Item HEXACO Personality Inventory – Revised

Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

- 5 = Strongly Agree
- 4 = Agree
- 3 = Neutral (Neither Agree nor Disagree)
- 2 = Disagree
- 1 = Strongly Disagree

Please answer every statement, even if you are not completely sure of your response

- 1. I would be quite bored by a visit to an art gallery.
- 2. I plan ahead and organize things, to avoid scrambling at the last minute.
- 3. I rarely hold a grudge, even against people who have badly wronged me.
- 4. I feel reasonably satisfied with myself overall.
- 5. I would feel afraid if I had to travel in bad weather conditions.
- 6. I wouldn't use flattery to get a raise or promotion at work, even if I thought I would succeed.
- 7. I'm interested in learning about the history and politics of other countries.
- 8. I often push myself very hard when trying to achieve a goal.
- 9. People sometimes tell me that I am too critical of others.
- 10. I rarely express my opinions in group meetings.
- 11. I sometimes can't help worrying about little things.
- 12. If I knew that I could never get caught, I would be willing to steal a million dollars.
- 13. I would enjoy creating a work of art, such as a novel, a song, or a painting.
- 14. When working on something, I don't pay much attention to small details.
- 15. People sometimes tell me that I'm too stubborn.
- 16. I prefer jobs that involve active social interaction to those that involve working alone.
- 17. When I suffer from a painful experience, I need someone to make me feel comfortable.
- 18. Having a lot of money is not especially important to me.
- 19. I think that paying attention to radical ideas is a waste of time.
- 20. I make decisions based on the feeling of the moment rather than on careful thought.
- 21. People think of me as someone who has a quick temper.

- 22. On most days, I feel cheerful and optimistic.
- 23. I feel like crying when I see other people crying.
- 24. I think that I am entitled to more respect than the average person is.
- 25. If I had the opportunity, I would like to attend a classical music concert.
- 26. When working, I sometimes have difficulties due to being disorganized.
- 27. My attitude toward people who have treated me badly is "forgive and forget".
- 28. I feel that I am an unpopular person.
- 29. When it comes to physical danger, I am very fearful.
- 30. If I want something from someone, I will laugh at that person's worst jokes.
- 31. I've never really enjoyed looking through an encyclopedia.
- 32. I do only the minimum amount of work needed to get by.
- 33. I tend to be lenient in judging other people.
- 34. In social situations, I'm usually the one who makes the first move.
- 35. I worry a lot less than most people do.
- 36. I would never accept a bribe, even if it were very large.
- 37. People have often told me that I have a good imagination.
- 38. I always try to be accurate in my work, even at the expense of time.
- 39. I am usually quite flexible in my opinions when people disagree with me.
- 40. The first thing that I always do in a new place is to make friends.
- 41. I can handle difficult situations without needing emotional support from anyone else.
- 42. I would get a lot of pleasure from owning expensive luxury goods.
- 43. I like people who have unconventional views.
- 44. I make a lot of mistakes because I don't think before I act.
- 45. Most people tend to get angry more quickly than I do.
- 46. Most people are more upbeat and dynamic than I generally am.
- 47. I feel strong emotions when someone close to me is going away for a long time.
- 48. I want people to know that I am an important person of high status.
- 49. I don't think of myself as the artistic or creative type.
- 50. People often call me a perfectionist.
- 51. Even when people make a lot of mistakes, I rarely say anything negative.
- 52. I sometimes feel that I am a worthless person.
- 53. Even in an emergency I wouldn't feel like panicking.

- 54. I wouldn't pretend to like someone just to get that person to do favours for me.
- 55. I find it boring to discuss philosophy.
- 56. I prefer to do whatever comes to mind, rather than stick to a plan.
- 57. When people tell me that I'm wrong, my first reaction is to argue with them.
- 58. When I'm in a group of people, I'm often the one who speaks on behalf of the group.
- 59. I remain unemotional even in situations where most people get very sentimental.
- 60. I'd be tempted to use counterfeit money, if I were sure I could get away with it.

Appendix J

HEXACO Personality Inventory – Honesty-Humility Factor

Please read each statement and decide how much you agree or disagree with that statement. Then write your response in the space next to the statement using the following scale:

- 5 = Strongly Agree
- 4 = Agree
- 3 = Neutral (Neither Agree nor Disagree)
- 2 = Disagree
- 1 = Strongly Disagree
- 1. I wouldn't use flattery to get a raise or promotion at work, even if I thought I would succeed.
- 2. If I knew that I could never get caught, I would be willing to steal a million dollars.
- 3. Having a lot of money is not especially important to me.
- 4. I think that I am entitled to more respect than the average person is.
- 5. If I want something from someone, I will laugh at that person's worst joke.
- 6. I would never accept a bribe, even if it were very large.
- 7. I would get a lot of pleasure from owning expensive luxury goods.
- 8. I want people to know that I am an important person of high status.
- 9. I wouldn't pretend to like someone just to get that person to do favours for me.
- 10. I'd be tempted to use counterfeit money, if I were sure I could get away with it.

Appendix K

The Short Dark Triad

- 1 = Disagree Strongly
- 2 = Disagree
- 3 = Neither Agree nor Disagree
- 4 = Agree
- 5 =Agree Strongly
- 1. It's not wise to tell your secrets.
- 2. People see me as a natural leader.
- 3. I like to get revenge on authorities.
- 4. I like to use clever manipulation to get my way.
- 5. I hate being the center of attention.
- 6. I avoid dangerous situations.
- 7. Whatever it takes, you must get the important people on your side.
- 8. Many group activities tend to be dull without me.
- 9. Payback needs to be quick and nasty.
- 10. Avoid direct conflict with others because they may be useful in the future.
- 11. I know that I am special because everyone keeps telling me so.
- 12. People often say I'm out of control.
- 13. It's wise to keep track of information that you can use against people later.
- 14. I like to get acquainted with important people.
- 15. It's true that I can be mean to others.
- 16. You should wait for the right time to get back at people.
- 17. I feel embarrassed if someone compliments me.
- 18. People who mess with me always regret it.
- 19. There are things you should hide from other people to preserve your reputation.
- 20. I have been compared to famous people.
- 21. I have never gotten into trouble with the law.
- 22. Make sure your plans benefit yourself, not others.
- 23. I am an average person.

- 24. I enjoy having sex with people I hardly know.
- 25. Most people can be manipulated.
- 26. I insist on getting the respect I deserve.
- 27. I'll say anything to get what I want.

Appendix L

The Light Three Scale

- 1 = Disagree Strongly
- 2 = Disagree
- 3 = Neither Agree nor Disagree
- 4 = Agree
- 5 = Agree Strongly
- 1. It is hard for me to see why some things upset people so much.
- 2. I often have tender, concerned feelings for people less fortunate than me.
- 3. Volunteering to help someone is very rewarding.
- 4. When someone is feeling 'down' I can usually understand how they feel.
- 5. My heart goes out to people who are unhappy.
- 6. I dislike giving directions to strangers who are lost.
- 7. I find it easy to put myself in somebody else's shoes.
- 8. I would describe myself as a pretty soft-hearted person.
- 9. Doing volunteer work makes me feel happy.
- 10. I have a hard time reading people's emotion.
- 11. Sometimes when people talk about their problems, I feel like I don't care.
- 12. Helping others is usually a waste of time.
- 13. I can tell when others are sad even when they do not say anything.
- 14. If I see someone going through a difficult time, I try to be caring toward that person.
- 15. Helping people does more harm than good because they come to rely on others and not themselves.
- 16. People I am with have a strong influence on my mood.
- 17. When others feel sadness, I try to comfort them.
- 18. Unless they are part of my family, helping the elderly isn't my responsibility.
- 19. Other people's feelings don't bother me at all.
- 20. When others are feeling troubled, I usually let someone else attend to them.
- 21. Giving aid to the poor is the right thing to do.
- 22. I remain unaffected when someone close to me is happy.

- 23. I like to be there for others in times of difficulty.
- 24. Children should be taught the important of helping others.

Appendix M

The Light Three Scale – 6-Item

- 1 = Disagree Strongly
- 2 = Disagree
- 3 = Neither Agree nor Disagree
- 4 = Agree
- 5 =Agree Strongly
- 1. I get caught up in other people's feelings easily.
- 2. If I see someone going through a difficult time, I try to be caring toward that person.
- 3. Helping others is usually a waste of time.
- 4. I can tell when others are sad even when they do not say anything.
- 5. When others feel sadness, I try to comfort them.
- 6. When given the opportunity, I enjoy aiding others who are in need.

Appendix N

Peer Choice Questionnaire - Student Sample

Please rank the peers from 1 to 6, with 1 being the peer you would most likely choose for this scenario and 6 being the peer you would least likely choose for this scenario.

(This section of Survey Monkey will have each of the peers with the ranking setting)

Please indicate how much you agree with each of the following statements using the following scale:

- 1 = Disagree Strongly
- 2 = Disagree
- 3 = Neither Agree nor Disagree
- 4 = Agree
- 5 = Agree Strongly

For the following questions, please indicate the qualities that you like in the person rather than your agreeance that they possess these qualities.

I am *most* likely to choose this person for this scenario because...

- 1. They seem forgiving.
- 2. They seem like a good leader.
- 3. They seem like they will do what I ask.
- 4. They seem confident.
- 5. They seem impulsive or spontaneous.
- 6. They seem like they will wait for me to take charge.
- 7. They seem like they are in control of their emotions.
- 8. They seem intelligent.
- 9. They seem like they would be cooperative.
- 10. They seem honest and sincere.
- 11. They seem opinionated.
- 12. They seem like they will take charge.
- 13. They seem sensitive.
- 14. They seem humble.
- 15. They seem considerate.

Please describe your ideal peer in this scenario:

(This section of Survey Monkey will have an open text box)

For the following questions, please indicate the qualities that you do not like in the person rather than your agreeance that they possess these qualities.

I am *least* likely to choose this person for this scenario because...

- 1. They seem forgiving.
- 2. They seem like a good leader.
- 3. They seem like they will do what I ask.
- 4. They seem confident.
- 5. They seem impulsive or spontaneous.
- 6. They seem like they will wait for me to take charge.
- 7. They seem like they are in control of their emotions.
- 8. They seem intelligent.
- 9. They seem like they would be cooperative.
- 10. They seem honest and sincere.
- 11. They seem opinionated.
- 12. They seem like they will take charge.
- 13. They seem sensitive.
- 14. They seem humble.
- 15. They seem considerate.

Please describe your least ideal peer in this scenario:

(This section of Survey Monkey will have an open text box)

Appendix O

Peer Choice Questionnaire - Community Sample

Please rank the peers from 1 to 6, with 1 being the peer you would most likely choose for this scenario and 6 being the peer you would least likely choose for this scenario.

(This section of Survey Monkey will have each of the peers with the ranking setting)

For the following questions, please indicate the qualities that you would like in a peer for this particular scenario.

If you agree with the statement and <u>like</u> this quality in your peer, answer TRUE. If you disagree with a statement and <u>dislike</u> this quality in your peer, answer FALSE.

My ideal peer would...

- 1. Be forgiving.
- 2. Be a good leader.
- 3. Do what I ask.
- 4. Be confident.
- 5. Be impulsive or spontaneous.
- 6. Will wait for me to take charge.
- 7. Be in control of their emotions.
- 8. Be intelligent.
- 9. Be cooperative.
- 10. Be honest and sincere.
- 11. Be opinionated.
- 12. Take charge.
- 13. Be sensitive.
- 14. Be humble.
- 15. Be considerate.

Appendix P

Satisfaction with Life Scale

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neither Agree nor Disagree
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree
- 1. In most ways my life is close to ideal.
- 2. The conditions of my life are excellent.
- 3. I am satisfied with my life.
- 4. So far, I have gotten the important things I want in life.
- 5. If I could live my life over, I would change almost nothing.

Appendix Q

Personality Research Form - Social Desirability Scale

Read each statement and decide whether or not it describes you. If you agree with the statement or decide that it does describe you, answer TRUE. If you disagree with a statement or feel that it is not descriptive of you, answer FALSE. Answer every item either true or false, even if you are not completely sure of your answer.

1. I am never able to do things as well as I should	True	False
2. I believe people tell lies any time it is to their advantage	True	False
3. I would be willing to do something a little unfair to get something that was important to me	True	False
4. I did many bad things as a child	True	False
5. I often question whether life is worthwhile	True	False
6. My daily life includes many activities I dislike	True	False
7. Many things make me feel uneasy	True	False
8. I find it very difficult to concentrate	True	False
9. I am quite able to make correct decisions on difficult questions	True	False
9. I am quite able to make correct decisions on difficult questions10. My life is full of interesting activities	True True	False False
10. My life is full of interesting activities	True	False
10. My life is full of interesting activities11. If someone gave me too much change I would tell them	True True	False False

15. I am one of the lucky people who could talk to my parents about my problems	True	False
16. I am careful to plan for my distant goals	True	False

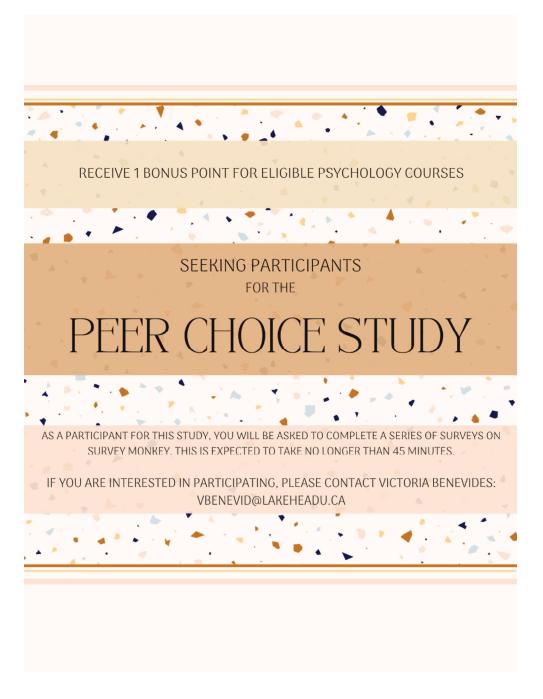
Appendix R

Personality Research Form – Infrequency Scale

Read each statement and decide whether or not it describes you. If you agree with the statement or decide that it does describe you, answer TRUE. If you disagree with a statement or feel that it is not descriptive of you, answer FALSE. Answer every item either true or false, even if you are not completely sure of your answer.

1. I could easily count from one to twenty-five	True	False
2. I have never talked to anyone by telephone	True	False
3. I make all my own clothes and shoes	True	False
4. Things with sugar in them usually taste sweet to him	True	False
5. I try to get at least some sleep every night	True	False
6. I have attended school at some time during my life	True	False
7. I have never had any hair on my head	True	False
8. I have never ridden in an automobile	True	False
I usually wear something warm when I go outside on a very cold day	True	False
10. Sometimes I see cars near my home	True	False
11. I have never bought anything from a store	True	False
12. I can run a mile in less than 4 minutes	True	False
13. I have never brushed or cleaned my teeth	True	False
14. I have travelled away from my home time	True	False
15. I have never felt sad	True	False
16. Sometimes I feel thirsty or hungry	True	False

Appendix S Social Media Recruitment Poster – Student Sample



Appendix T

Written Information - Student Sample



Department of Psychology t: (807) 343-8257 beth.visser@lakeheadu.ca

Project Title: Peer Choice Study

Principle Investigator: Beth Visser, PhD

Lakehead University, beth.visser@lakeheadu.ca – Tel: (705) 330-4008 ext. 2612

Study Coordinator and Graduate Student Investigator: Victoria Benevides, HBA

Lakehead University, vbenevid@lakeheadu.ca

Information Letter

Potential Participant,

Thank you for your interest in the "Peer Choice Study". The main purpose of this study is to assess participants' preferences for peer personality in varying contexts. To do this, we will ask you to complete a series of online questionnaires. Participants maintain the right to decline to answer any question. It is anticipated that this session will not exceed 45 minutes. If you have any questions about this study, please ask one of the research team members.

There are no known physical risks associated with participating in the current study. However, some of the material in the surveys contains explicit content and asks questions on sensitive subject matters that might result in some minor psychological discomfort for some people. If this occurs, we ask that Thunder Bay campus students please contact the Student Health and Counselling Centre at Lakehead University (Prettie Residence), at 807-343-8361, or the Thunder Bay Crisis Response Service, at 1-807-346-8282. We ask that Orillia campus students contact Student Health and Wellness at Lakehead University at 705-330-4008 (ext. 2116), or the Telecare Distress Line of Greater Simcoe – Orillia at 705-325-9534. Additionally, the Ontario Mental Health Helpline is available at 1-866-531-2600.

Your anonymity will be maintained throughout this study and the faculty research investigator (Dr. Beth Visser) will not know which students have participated in this study. Please note that the online survey tool used in the study, SurveyMonkey, is hosted by a server located in the USA. The U.S. Patriot Act permits U.S. law enforcement officials, for the purpose of anti-terrorism investigation, to seek a court order that allows access to the personal records of any person without the person's knowledge. In view of this, we cannot absolutely guarantee the full confidentiality and anonymity of your data. With your consent to participate in this study, you acknowledge this. All data will be coded with a number and no identifying information will be associated with responses or research results. Your participation in this research is completely

voluntary, and should you choose to not participate, you may do so without consequence or the need for justification. Your decision to participate will not affect your academic status. If you decide to participate, you may choose not to answer any questions and you may withdraw your participation at any time without penalty by exiting the survey. Once you submit your data, however, it cannot be withdrawn due to anonymity. The data obtained in this research will be used in research publications, conferences, presentations, or for teaching purposes. Your identity will remain confidential throughout these processes as well.

As a token of our gratitude for participating in this research, you may elect to receive one bonus mark towards an eligible Lakehead University course. A summary of the research findings may be available to you once the study is completed. Please note, however, that it might take up to 12 months from the time of your participation before the study is completed and the findings are available. If you wish to receive a summary of the findings, please provide your email address or other contact information to the researcher. This contact information will remain separate from your data as to maintain your anonymity.

This study has been approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright at the Research Ethics Board at 1-807-343-8283 or research@lakeheadu.ca.

Thank you for your interest and participation; it is greatly appreciated!

Appendix U

Electronic Consent Form – Student Sample

My signature on this page indicates that:

- I have read and understand the information provided in the Information Letter for the study called "Student Peer Choice Study". I was given the opportunity to ask questions about the study, as research team member emails were provided, and any answers given were to my satisfaction.
- · I voluntarily agree to participate in the research.
- I understand that there are no known physical or psychological risks associated with participation in this research. However, should any emotional distress present itself, I have been given the contact information for appropriate professionals.
- I understand that I may choose to not answer any question and can stop participating at any time.
- I understand that any information I submit after completing the study cannot be withdrawn.
- I understand that my identity will remain anonymous in any publication or scientific or public presentations resulting from this research.

Click 'Next' if you agree to participate in this study.

Appendix V

Debriefing Form – Student Sample

Thank you for participating in the "Peer Choices Study". One of the primary goals of this study is to help improve the theoretical understanding of personality and social psychologies and the influences they have on each other. More specifically, we intend to explore how the personality of an individual influences the personalities they prefer in their peers in varied contexts.

For your well-being, we are required to inform you that the profiles that you were presented with were not real. The profiles were intended to depict individuals high in narcissism, Machiavellianism, psychopathy, empathy, altruism, and compassion. Each of these vignettes were composed using items from the Short Dark Triad Scale and Light Three Scales. This minor deception was necessary for an accurate presentation of these six personality profiles.

Please be assured that the data provided at any point during the study will be given a participant code and will not be linked to any of your personal contact information. This ensures anonymity for you as a participant in the research. If you are interested in a summary of the results, please provide your email address, or contact information to the researcher. Please note that the summary of results may not be available until September of 2023. If you have any questions pertaining to the study, please do not hesitate to

117

contact the graduate student researcher, Victoria Benevides (vbenevid@lakeheadu.ca), or the Principal Investigator, Dr. Beth Visser (beth.visser@lakeheadu.ca).

If your participation raised any concerns about mental health that you would like to discuss, we ask that Canadian participants please contact Wellness Together Canada at 1-866-585-0445, text 'WELLNESS' to 741741, or contact a local mental health agency. We ask that American participants contact the Crisis Text Line by texting 'HOME' to 741741, contact the National Suicide and Crisis Lifeline by calling 988, or contact a local mental health agency. We ask those participants from the United Kingdom contact Give Us a Shout by texting 'SHOUT' to 85258, contact the NHS using your local helpline, or contact a local mental health agency.

Questions for Thought:

To enrich your educational experience, feel free to ask yourself these questions:

- 1. What personality traits do you think may be particularly useful for working in cooperative groups?
- 2. Do you find that you work best with individuals who have personality traits that are like your own or different from your own?

3. Do the people you work best with have similar or different personality traits as compared to the people you choose for close friendships?

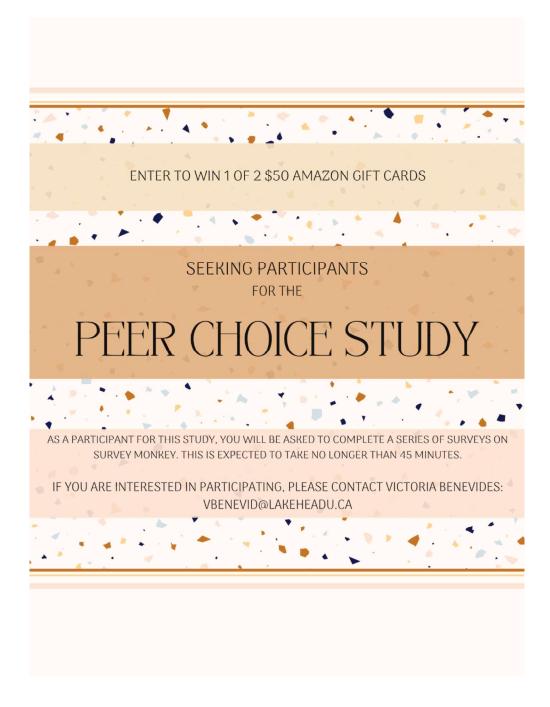
To learn more about this topic, see: Laakasuo, M., Rotkirch, A., Berg, V., & Jokela, M. (2017). The Company You Keep: Personality and Friendship Characteristics. Social Psychological and Personality Science, 8(1), 66–73.

https://doi.org/10.1177/1948550616662126

Thank you for your interest and participation. It was greatly appreciated and will surely make a difference!

When you click 'Done', you will be redirected back to the Sona homepage. Your research credit will be granted within 48 hours. If you have concerns about the research credit, please email the Graduate Student Researcher, Victoria (vbenevid@lakeheadu.ca).

Appendix W
Social Media Recruitment Poster – Community Sample



PEER PREFERENCE WITHIN DARK TRIAD AND LIGHT THREE

120

Appendix X

Written Information – Community Sample

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Department of Psychology

t: (807) 343-8257

beth.visser@lakeheadu.ca

Project Title: Peer Choice Study

Principle Investigator: Beth Visser, PhD

Lakehead University, beth.visser@lakeheadu.ca – Tel: (705) 330-4008 ext. 2612

Study Coordinator and Graduate Student Investigator: Victoria Benevides, HBA

Lakehead University, vbenevid@lakeheadu.ca

Dear Potential Participant,

Thank you for your interest in the "Peer Choice Study". The main purpose of this study is to assess participants' preferences for peer personality in varying contexts. To do this, we will ask you to complete a series of online questionnaires. Participants maintain the right to decline to answer any question. It is anticipated that this session will not exceed 30 minutes. Of you have

any questions about this study, please ask one of the research team members.

There are no known physical risks associated with participating in the current study. However, some of the material in the surveys contains explicit content and asks questions on sensitive subject matters that might result in some minor psychological discomfort for some people. If this occurs, we ask that Canadian participants please contact Wellness Together Canada at 1-866585-0445, text 'WELLNESS' to 741741, or contact a local mental health agency. We ask that American participants contact the Crisis Text Line by texting 'HOME' to 741741, contact the National Suicide and Crisis Lifeline by calling 988, or contact a local mental health agency. We ask those participants from the United Kingdom contact Give Us a Shout by texting 'SHOUT' to 85258, contact the NHS using your local helpline, or contact a local mental health agency.

Please note that the online survey tool used in the study, SurveyMonkey, is hosted by a server located in the USA. The U.S. Patriot Act permits U.S. law enforcement officials, for the purpose of anti-terrorism investigation, to seek a court order that allows access to the personal records of any person without the person's knowledge. In view of this, we cannot absolutely guarantee the full confidentiality and anonymity of your data. With your consent to participate in this study, you acknowledge this. All data will be coded with a number and no identifying information will be associated with responses or research results. Your participation in this research is completely voluntary, and should you choose to not participate, you may do so without consequence or the need for justification. If you decide to participate, you may choose not to answer any questions and you may withdrawal your participation at any time without penalty by exiting the survey. Once you submit your data, however, it cannot be withdrawn due to anonymity. The data obtained in this research will be used in research publications, conferences, presentations, or for teaching purposes. Your identity will remain confidential throughout these processes as well.

As a token of our gratitude for participating in this research, you may elect to be entered into a draw to win one of two \$50 (CAD) Amazon gift cards. If you elect to be entered into the draw to win an Amazon gift card, you will be redirected to another SurveyMonkey page and asked for

your email address or other contact information in order to be informed should you win. This contact information is entirely separate from your study responses.

Appendix Y

Electronic Consent Form – Community Sample

My signature on this page indicates that:

- I have read and understand the information provided in the letter of information for the study called "Peer Choice Study". I was given the opportunity to ask questions about the study, as research team member emails were provided, and any answers given were to my satisfaction.
- · I voluntarily agree to participate in the research.
- I understand that there are no known physical or psychological risks associated with participation in this research. However, should any emotional distress present itself, I have been given the contact information for appropriate professionals.
- I understand that I may choose to not answer any question and can stop participating at any time.
- I understand that any information I submit after completing the study cannot be withdrawn.
- I understand that my identity will remain anonymous in any publication or scientific or public presentations resulting from this research.

Click 'Next' if you agree to participate in the study.

Appendix Z

Debriefing Form – Community Sample

Thank you for participating in the "Peer Choices Study". One of the primary goals of this study is to help improve the theoretical understanding of personality and social psychologies and the influences they have on each other. More specifically, we intend to explore how the personality of an individual influences the personalities they prefer in their peers in varied contexts.

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