Temperament, Personality, & Self Deception

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ABSTRACT

The overall purpose of the study was striving to better understand the parameters of our awareness from our own contemporary pathology when dealing with that which we are most familiar with, the self. 58 Participants completed an online survey that assessed their personality disparity: measured through the difference between their psychologically assessed personality scores, and self identified personality scores of Big 5 personality traits (Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism) along with both the Dark & Light Triads traits for more exploratory analysis. No data the study found supported any individual trait of the Big 5 having a majority or significant influence in participants' overall personality disparity. Significant relationships of disparity between participants Big 5 trait scores and their corresponding self assessed scores for all traits but openness. Indicating a positive level of self deception caused by their psychologically assessed individual trait scores.
Temperament, Personality, and Self Deception

“I think where I am not, therefore I am where I do not think. I am not whenever I am the plaything of my thought; I think of what I am where I do not think to think” - Jacques Lacan (Lacan & Grigg, 2007)

This study strives to understand the parameters of our self-awareness when dealing with that which we are most familiar with, the self. It's been well established in the field of psychology that human perception is limited in its ability to understand and rationalize the world around itself, be it sensory, cognitive, or other limiting factors. From simple optical illusions, to complex hallucinations, to perceptual blindness in assessments of complex environmental, social, and personal situations, we have known that there is a degree of flaw and error in the individual perceptions of humans (Dolcini, 2020; Treisman et al. 2006). Each of us is subject to ingrained and conditioned biases in our categorization and relationship with both our internal and external environments, as a result of the unique situational, environmental and biological factors that shaped our developmental potential and parameters throughout our lifespan. We all fall prey to the limits in our parameters of awareness that drives our individual subjectivization of the world around us (Maté, 2018). To be human is to lack
true objectivity, even in our perception of our own self concept (Zizek, 1997).

The overall question that this study is looking into is whether those limits in our perceptual abilities impact our ability to transparently perceive who we are, and how we interact with the world. In other words do the limits in our parameters of awareness, brought on by the unique situational, environmental, and biological factors that cultivated our identity create a disparity between our own self image versus our actual motivating desires and their subsequent behavioral expression.

The tendency for people to believe in nonexistent phenomena to satisfy their desires is called “self-deception” (Jian, Zhang, Tian, Fan, & Zhong, 2019). Self-deception involves a combination of a conscious motivational false belief and a contradictory unconscious real belief (Jian et al. 2019), when our subjective analysis of what is, turns out to be misguided or unfounded. The active misrepresentation of reality to the conscious mind suggests that there may be multiple sources of self-deception in our own species (Trivers 2000).

When it comes to the origin of the idea regarding there is more to us than we are aware of in modern psychology, at least the historical dialogue that this study focuses on, one needs to look no further than the theories of Sigmund Freud. Through looking at repression and hysteria, Freud proposed that ideas could leave one's conscious awareness yet still remain
active in the mind, until triggered back to awareness through specific criteria. This formed the foundation of his ideas on the unconscious mind. The structure of our minds, both conscious and unconscious, are broken down into three interconnected components: the Ego, Id, and Superego (Freud, 1961). The Id being defined as one’s unbridled impulse and instinct, the Superego being the ruling critic of one’s ethics and morals, while the Ego plays the role of one’s self concept and seeks to regulate between the two, thus making sure that both the Id and Superego are able to be expressed in harmony and attunement. Freud’s Ideas theorized that one personality or sense of self comes from the interplay of the Id and Superego by means of the Ego (Freud, 1961). This distinction in the structures of the conscious and unconscious mind identifies a limitation in our own nature. That being how the aspects of ourselves that we are aware of only arise from the underlying antagonisms of the Id and Superego from our larger, unconscious self. Revealing how we as humans do not have the ability to transparently identify and understand our own subconscious motivations, beliefs, and desires.

These ideas were furthered by the work of the French psychoanalyst Jacques Lacan. It is his work that is used as this study’s foundation of knowledge for the flawed perception the subject holds of itself. Lacan put forward a theory for psychoanalysis that at its foundation was built off of the work of Freud, and focuses heavily on how our perceptions of the world
and the self are heavily influenced by factors of social and cultural ideology, especially through the means of language (Lacan, 2007). As well, the unconscious mind is as (if not more so), structured and intricate as any system of language. Yet, due to the preconstruction and symbolic limitations of language, the individual self is denied any point of reference to be truly expressed. This is through the three stages Lacan proposed of identity development, The Real, The Imaginary, The Symbolic (Lacan, 2007). The Real as described by Lacan is the state of nature that we are forever separated from by our introduction to language, and is only experienced by neonatal infants. It's a state marked only by the child's Need, with the child seeing no separation between itself and the external world in its seeking of satisfying its needs (Felluga, 2011). “The real is what resists symbolization absolutely” - (Lacan, 1988).

The Imaginary is defined by Lacan as heavily associated with his concept of the mirror stage. During this stage the individual learns to begin to differentiate itself from its environment through identifying with their own concept of self. In doing so they begin to transition from a foundation of purely primal need to one marked by demand (Lacan, 2007). The imaginary stage being one that is characteristically narcissistic, as the individual's demands are by definition, unsatisfiable, due to the individual's realization and their following anxiety around the fact that they realize they
exist separate from the external world around them, and thus begin to make demands in order to reintegrate itself and the external world (Felluga, 2011).

Finally the Symbolic is defined as the individual's final step into the realm of language, and in doing so accepts the societal parameters and guidelines put forward by one's greater environment. As Lacan describes it, it is the realization and acceptance of the given rules that come from the social environment, far beyond the individual, that control the individuals parameters for desire and expression through symbolic, linguistic, communication (Lacan, 2007).

Lacan's work also focuses around the specific ontological claim: the normative notion of humans taking in reality as it is, or from the objective world, and then finding comfort, meaning, and orientation from some conditioned symptomatic pathology, is not correct. With his proposal being: in order to be able to take in and interact with reality, we must first rely on some symptom (Felluga, 2011). Thus the very nature of awareness is to be in a state of deception and denial from reality, our “real” selves and desires.

Through this statement Lacan makes the claim that our entrance to language has severed us from “the real” of our true nature permanently, leading any subject's self concept to be flawed and limited in describing the totality of our deeper nature. More importantly he claims this process demonstrates how the Ego, one's concept of self, is the object not the subject. With the subject being that of the recipient of experience and
awareness. The Ego is rather a byproduct of our interwoven desires, driven by our existential anxiety and trauma. Formed in the process of us acting out being an individual human by the impossible means of subjectively identifying with the “human experience”.

Though for this study, in order to get reliable measurements of an individual's personality that we could analyze to look for the possible effects of an individual's self-deception on. We looked to the field of Personality & Trait theory. Specifically we focused on an individual's personality traits, both psychologically inventoried and subjectively self assessed, as categorizable and measurable aspects of one's natural propensity and identity. The basic premise of trait theory is that human nature and behavior, in the form of an individual's personality, can be grouped and categorized by means of similar behaviors (Cherry, 2023). The variance of these traits in strength and intensity are what make up the wide span of differences that can be observed across people's personalities. Though for any grouping of patterned thoughts, feelings, or behaviors to be considered a personality trait, it must first fulfill three criteria; it must be consistent, stable, and vary from person to person (Worthy, Lavigne, & Romero, 2022). With an individual's personality being defined by their unique expression and interaction of individual traits. Several frameworks for categorizing and describing personality traits have emerged in historically (Cattell, & Mead
2008; Allport, 1937; Eysenck, 1947), but for this study the five factor model, or the Big 5 (John & Srivastava, 1999), were employed.

In order to closely examine the overarching study question and its specific hypotheses properly, we needed to find reliable measures to employ for individual's psychologically inventoried personality traits, along with their self awareness of their personality broken down by the same list of traits. The decision was made to use the globally recognised measure of core personality traits, The Big 5 (John & Srivastava, 1999), in order to measure the personalities of participants. This was due to the fact that the Big 5 has not only been shown to hold up to cross cultural application, as well as generate stable results of self reported personality measures for individuals over time (Yunus, Wahab, Ismail, & Othman, 2018). As well the Big five is globally recognised as the prevailing theory in the fields of personality and trait theory (Yunus et al. 2018). Though the Big 5 (John & Srivastava, 1999) is itself a self reported scale and while reliable and stable results can be gained from its use, an individual's level of self awareness still.

For more exploratory questions into the possible role of an individual's level of social adversity, measured through personality, we also employed two more inventories in the form of the Dark and Light Triads. The Dark Triad is a model of three personality traits, originally coined in 2002, that are all categorized by a general disregard towards others, large degrees of self interest and malevolence (Paulhus & Williams, 2002). The
Dark Triad model was first developed inorder to categorize negative personality traits, since higher levels of Dark Triad traits have been linked with higher levels of social adversity (Birkás, Pátkai, & Csathó, 2020). The traits that comprise the Dark Triad are Psychopathy, Narcissism, and Machiavellianism. Trait Psychopathy is defined as a sense of grandiosity and self-centeredness, trait Narcissism is defined as a trend of callus social attitudes and impulsivity, and finally trait Machiavellianism is defined as tendencies of manipulation and cynicism (Paulhus & Williams, 2002). The Light Triad is a model of three personality traits that are all categorized by general socially beneficial character traits in an attempt to look at the opposite personality expression of Dark Triad traits. High presentations of these traits have been linked with lower levels of social adversity (Khan, Safdar, & Durrani, 2021). The traits that compose The Light Triad are Kantianism, Humanism, and Faith in Humanity. Trait Kantianism is defined as treating people as ends unto themselves, not mere means. Trait Humanism is defined as valuing the dignity and worth of each individual, and lastly trait Faith in Humanity is defined as believing in the fundamental goodness of humans (Kaufman, Yaden, Hyde, & Tsukayama, 2019).

Through post study analysis we hope to examine whether specific occurrences (high or low) of any personality traits in the Big 5, Dark Triad, and Light Triad would result in a heightened or decreased ability of an individual to transparently see their personal current natural disposition.
The hypotheses this study focused on were twofold. The first is the overarching hypothesis of the study, **Hypothesis 1**: There will be a statistical relationship between the presentation in individuals' core personality traits defined by The Big 5 and an individual's level of disparity between their psychologically and self reported personality. Indicating the influence of an individual's score on individual Big 5 personality traits on their overall absolute summation of personality disparity across all Big 5 traits. **Hypothesis 2**: There will be a statistical relationship between the participants' degree of individual Big 5 trait presentation and their Big 5 individual trait disparity. Indicating that an individual's score on individual core Big 5 traits would predictably influence the level of disparity in their self assessed score of that respective trait.

**Method**

The study itself was an Online Survey that assessed the degree of presentation of personality traits from the Big 5 Inventory (John & Srivastava, 1999), the Dark and Light Triad inventory, (Furnham, Richards, & Paulhus, 2013; Zeigler-Hill, Sternisco, Sevi, Roberts, Pfattheicher, Perry, Paulhus, Neumann, Lee, Knežević, Kircaburun, Jonason, Greitemeyer, Geel, Dinić, Chabrol, Buckels, Baughman, Abalakina-Paap, & Gable, 2021) along with a participants' self assessment of their perceived personality according to the same eleven traits measured in the Big 5, Light Triad, and Dark Triad.
Before the study participants were prompted to respond to optional and general demographics questions. Finally, participants were debriefed on the study upon finishing the previous section. In order to limit internal biasing, participants were instructed to complete the previously mentioned psychological inventories before being asked to label their own personality according to the presentation of those inventory-measured personality traits. This ordering was due to multiple factors which aimed at reducing the internal bias of the survey. If participants had prior knowledge of what individual personality traits they were being measured on before completing the Big 5, Dark Triad and Light Triad Inventories, their responses could become biased due to factors such as impression management (Barrick & Mount, 1996). Two psychological assessments for personality traits made for a total of sixty-eight questions regarding general behavioral and cognitive practices the individual may or may not engage in. While the Self report was eleven questions in total. Each question on the self report also gave the participant a specific trait of the eleven in question, along with a definition of the trait, in order to promote standardization in participant perceptions and reduce misinterpretation of possibly unfamiliar vocabulary surrounding any of the traits. An example of this is the description used for trait Narcissism: (nar·cis·sism | \ ˈnär-səˌsi-zəm) Narcissistic individuals often come across as selfish and arrogant due to a tendency to feel superior or entitled in comparison to others. They often
are hypersensitive to criticism and act unsympathetically, not validating opposing perspectives. It also asked the participant to assess their own personality in relation to that trait. By having participants initially fill out the longer psychological assessment before the shorter self assessment, it reduced the chance that participants were able to remember their exact responses from the first assessment and use them as a foundation or baseline in regard to their responses to subsequent questions. It also allowed the Big 5, and Dark and Light Triad inventories to be fully completed without participants necessarily being aware of the core 11 traits that we were testing for before they were revealed in the later self assessment section.

Participants

The study received a total of 58 individual participant responses. When looking at the responses, 48 of them were complete sets of usable data, while 10 participant results were incomplete due to a lack of participant response and therefore partially excluded according to the incomplete sections. The survey participants came from the SONA systems user population of undergraduate students. SONA is a participant pool populated by undergraduate students enrolled at WPI, where students can log in through their school accounts and willingly participate in research. The survey responses were taken anonymously and participants received no
direct benefit for participating in the study. However, as an additional payment, eligible participants who signed up for the study received class credit. A demographic breakdown of the participant pool showed that in terms of gender identity: of the 58 participants, 23 of them identified as being female, 18 identified as male, 5 identified as non-binary, while 4 identified as transgender. When it came to the age of the participants, they ranged from 18 to 22, with the average age being 19. When it came to the racial and ethnic identity of the participants, 39 of the participants identified as white, two participants identified as black or african american, 15 participants identified as asian, four participants identified as latinx or hispanic, one participant identified as Hawaiian /pacific islander and two participants identified as the ‘other’ category. These demographics seem to indicate that the participant population is representative of social science classes at WPI. This could possibly be inferred mostly due to the fact that a slight majority of the participants identified as women, a trait found in WPI social science classes that stands out from many of WPI’s male dominated undergraduate fields.

Measures

*The Big 5*

The Big 5 is one of the most widely used and accepted measures for personality (Yunus et al. 2018; John & Srivastava, 1999). The assessment that
was employed was a 44 question inventory that measures on a 7 point Likert scale the degree of occurrence of each of the Big 5 model personality traits (1 = Strongly Disagree; 7 = Strongly Agree). To measure openness, participants answered questions like: “I see myself as someone who likes to reflect, play with ideas”, “I see myself as someone who has an active imagination”, and “I see myself as someone who values artistic, aesthetic experiences”. To measure conscientiousness, participants answered questions like: “I see myself as someone who is a reliable worker”, “I see myself as someone who does things efficiently”, “I see myself as someone who perseveres until the task is finished”. To measure Extraversion, participants answered questions like: “I see myself as someone who is full of energy”, “I see myself as someone who has an assertive personality”, “I see myself as someone who is outgoing, sociable”. To measure Agreeableness, participants answered questions like: “I see myself as someone who has a forgiving nature”, “I see myself as someone who likes to cooperate with others”, “I see myself as someone who is generally trusting”. To measure Neuroticism, participants answered questions like: “I see myself as someone who gets nervous easily”, “I see myself as someone who can be tense”, “I see myself as someone who can be moody”. All items were first related to each of the 5 components. Then for question numbers 2, 6, 8, 9, 12, 18, 21, 23, 24, 27, 31, 34, 35, 37, 41, and 43 the score was reversed, while all other questions were left untouched. The sum of each participant's scores were then added
together, for each trait, to provide an indication for how open to new experience, agreeable, conscientious, extraverted, and neurotic each participant is. (See Appendix A)

**Dark Triad and Light Triad Trait Inventories**

We were also interested in understanding how participants rated themselves in relation to socially detrimental personality traits. To do this participants completed 12 questions from the Dark Triad dirty dozen inventory (Jonason & Webster, 2010). These items measured the darker aspects to personality, such as: Machiavellianism, Narcissism, and Psychopathy. To measure Psychopathy, participants answered questions like: “I tend to lack remorse”, “I tend to be unconcerned with the morality of my actions”, and “I tend to be cynical”. To measure Machiavellianism, participants answered questions like: “I tend to manipulate others to get my way”, “I tend to exploit others towards my own end”, and “I have used deceit or lied to get my way”. To measure Narcissism, participants answered questions like: “I tend to expect special favors from others”, “I tend to want others to pay attention to me”, and “I tend to seek prestige or status”. All items related to each of the 5 components were averaged together to provide an indication for how Psychopathic, machiavellian, and narcissistic each participant is.

In addition to the Dark Triad, we were also interested in how participants rated themselves in relation to socially beneficial personality
traits. Therefore, participants also completed 12 items from the Light Triad Trait Inventory (Gerymski & Krok, 2019) in order to identify the degree of occurrence each participant expressed of traits Humanism, Kantianism and Faith in Humanity. (We opted for the Polish adaptation because it had been shown to work cross-culturally in both English-speaking and Polish-speaking participants.) To measure Humanism, participants answered questions like: “I tend to admire others’”, “I tend to treat others as valuable”, and “I enjoy listening to people from all walks of life”. To measure Kantianism, participants answered questions like: “I don’t feel comfortable manipulating people to do something I want”, “I like to be authentic even if it may damage my reputation”, and “When I talk to people, I am rarely thinking about what I want from them”. To measure Faith in Humanity, participants answered questions like: “I tend to see the best in people”, “I’m quick to forgive people who have hurt me”, and “I think people are mostly good”. While most of the questions in the Light Triad inventory were kept unchanged in order to promote standardization and comparability to other research; question 11 was changed from “I would like to be authentic even if it may damage my reputation,” to “I like to be authentic even if it may damage my reputation.” This was due to the fact that people are inherently poor at predicting their future beliefs or behaviors (Gilbert & Wilson, 2005). This change was made to rephrase the question in a more present tense,
asking how they feel currently in relation to the topic, as opposed to how they would like to feel in the future.

The two inventories (Dark and Light Triads) were shown using an adaptation of a multiple question formatting approach originally developed by Ackerman, Donnellan, Roberts, & Fraley (2016) in order to receive more comprehensive and detailed results when analyzing the prevalence of Dark Triad traits in individuals. This approach originally included a 3 pronged question approach pairing opposite statements against each other. The first part of the question would be a forced choice response format, the second being a single stimulus dichotomous response format, and the final part would consist of a single stimulus rating scale response format. In the study conducted, this model was reduced to a two part approach for questions in order to reduce repetition, and completion time for participants. This two part approach maintained the single stimulus dichotomous response format, with questions appearing like: “Please respond to each of the following statements as either true or false according to your own feelings and beliefs A) (I tend to manipulate others to get my way) True / False B) (I don’t feel comfortable manipulating people to do something I want) True / False”. We also asked participants to respond on a 7-point Likert-type Scale (1 = Strongly Disagree; 7 = Strongly Agree). (See Appendix B)
Self-Assessment

For a self perceived personality measure, we created a short inventory that assessed individuals' self-perception of their personality traits, for all the traits in the Big 5, as well as the Dark and Light Triad. Where for each of the 11 tested traits (Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism, Machiavellianism, Psychopathy, Narcissism, Kantianism, Faith in Humanity, and Humanism). Participants completed a self assessment on their personality traits that asked them to indicate their own self-beliefs for each of the 11 total traits in The Big 5, Light Triad and Dark Triad. These questions were on a 7 point Likert-type scale (0 = Very Low; 7 = Very High). Each question and its respective trait were shown concurrently with the trait’s corresponding meaning in order to minimize any misinterpretations. (See Appendix C)

Procedure

After opening a link to an online survey and being prompted to read and indicate their agreement to the study’s informed consent statement (See Appendix D), participants were then asked to complete the remainder of the study. The reminder of the survey was split into four individual sections. The first section asked participants to fill out the 44 question inventory of the Big 5 (John & Srivastava, 1999) in line with their current behavior and beliefs. The second section consisted of both the Dark Triad (Mayor,
Daehne, & Bianchi, 2020) and Light Triad (Gerymski & Krok, 2019) inventories in line with their current behavior and beliefs. In section three, participants were asked to complete a self assessment in regards to their own image of their personality. In the last section, participants were asked to complete a short demographics section that inquired about their Age, Gender Identity, Race/Ethnicity, and past interactions with personality assessments. (See Appendix E) Lastly, participants were thanked for their participation and finally debriefed with a full explanation of the study and the importance of the data of their responses.

**Results**

In order to properly examine the data that was gathered through the online survey six different regression analyses were run. These were chosen in order to properly examine the studies and gather data in relation to the two overarching study hypotheses. Regression model 6 was run in order to look into the studies first hypothesis. By having the independent variables being each of the participants five Big 5 measured trait scores, with the dependent variable being participants total disparity score. This total disparity score was calculated by taking a summation of the absolute value of each of the participants individual Big 5 trait disparity scores. This would tell us how large and strong of an effect each individual Big 5 measured trait score has on a participants overall personality disparity. The Regression 6
model looking at each of the Big 5 core personality traits and their possible impact on overall personality disparity, was not significant, $F(5, 42) = .263, p < .931$, and a $r^2$ of .030. (See Figure 1-5 for scatterplot of data)

Regression models 1-5 were run in relation to answering the studies second hypothesis. Each of the 5 regressions run where set up similar to each other inorder to each individually address the core traits of the Big 5. The independent variable for each of these tests was a participants Big 5 assessed score for the test respective trait, while the dependent variable was a participants self assessed score of the same trait. An example of this can be seen for the Regression 1 model: The independent variable is a participant's big 5 measured agreeableness score, with the dependent variable being their self assessed agreeable score. This would tell us whether or not an individual's Big 5 trait scores had an effect on their self reported trait score, along with how large and strong this possible influence is.

The Regression 1 model addressing agreeableness (see Figure 6) was significant, $F(1, 53) = 14.80, p < .001$, with an $r^2$ of .218. This suggests that 22% of the variance in self-reported agreeableness could be explained by Big 5 agreeableness scores. Here the Big 5 agreeableness score was a significant predictor of self-reported agreeableness, $b = 0.76, \beta = .47, p < .001$, demonstrating a moderate relationship between the predictor and the outcome. Participants who scored very high (>56/63) on the Big 5
agreeableness assessment also reliably predicted higher values for their self reported agreeableness score.

The Regression 2 model addressing conscientiousness (see Figure 7) was significant, \( F(1, 50) = 11.43, p < .001 \), with an \( r^2 \) of .186. This suggests that 19% of the variance in self-reported conscientiousness could be explained by Big 5 conscientiousness scores. Here the Big 5 conscientiousness score was a significant predictor of self-reported conscientiousness, \( b = 0.70, \beta = .43, p < .001 \), demonstrating a moderate relationship between the predictor and the outcome. Participants who scored high (>53/63) on the Big 5 conscientiousness assessment also reliably predicted higher values for their self reported conscientiousness score.

The Regression 3 model addressing extraversion (see Figure 8) was significant, \( F(1, 53) = 95.99, p < .001 \), with an \( r^2 \) of .644. This suggests that 64% of the variance in self-reported extraversion could be explained by Big 5 extraversion scores. Here the Big 5 extraversion score was a significant predictor of self-reported extraversion, \( b = 1.03, \beta = .80, p < .001 \), demonstrating a moderate relationship between the predictor and the outcome. Participants who scored low (<10/56) on the Big 5 extraversion assessment also reliably predicted higher values for their self reported extraversion score.

The Regression 4 model addressing neuroticism (see Figure 9) was significant, \( F(1, 52) =82.26, p < .001 \), with an \( r^2 \) of .613. This suggests that 61%
of the variance in self-reported neuroticism could be explained by Big 5 neuroticism scores. Here the Big 5 neuroticism score was a significant predictor of self-reported neuroticism, $b = 1.224$, $\beta = .78$, $p < .001$, demonstrating a moderate relationship between the predictor and the outcome.

The Regression 5 model (see Figures 10) looking at Big 5 openness and self-reported openness, was not significant, $F(1, 50) = 3.043$, $p < .068$, and a $r^2$ of .062.

Unfortunately due to limitations and constraints in the allotted duration of the data analysis, the data relating to the exploratory questions this study was seeking to look into were unable to be properly analyzed and addressed. Specifically the questions regarding the influence of a participant's social adversity, measured through personality in the Dark Triad and Light Triad, had on their degree of overall and individual personality trait disparity.

**Discussion**

Looking at the main findings of the study, primarily no significant relationship was found between a participant’s Big 5 individual trait scores and their overall level of personality disparity. These results did not give us any supporting data towards Hypothesis 1 where we predicted there would be a statistical relationship between trait scores and overall personality
disparity. Therefore the results of this study suggest that no one individual personality trait amongst the core Big 5 hold a majority influence over the process of self concept formation. Along with that, there may be secondary or tertiary factors that come into play and influence the development of our self identity. The nature of these results could be due to an intersectional nature of Big 5 personality traits, as they have all been shown to be highly intercorrelated with each other (Linden, Nijenhuis, & Bakker, 2010). Individuals operate based on the summation of all parts of their personality, not based on individually operating, compartmentalized and isolated personality traits (Linden et al. 2010). These findings suggest that one Big 5 trait may not be core to the origin of an individual's overall personality disparity. Rather these results imply that the amalgamation of each trait may be more relevant to the overall personality disparity. As we only assessed how each trait in isolation related to an individual's total personality disparity, this was not fully taken into account and future research may wish to explore this more.

Looking at the second main question of the study, hypothesis two predicted there would be a statistical relationship between participants' Big 5 individual trait scores and the participants' self assessed scores for each respective individual trait. For the results gathered on the five traits of the Big 5, only four traits yielded significant results that supported hypothesis two. While for the single trait of openness to new experience no significant
results were found. Having no supporting evidence for trait openness and hypothesis 2 leads us to not be able to fully accept the supporting results for hypothesis two completely. As it was only supported in some of the Big 5 trait results. The results found that openness to new experience yielded non significant results, giving no supporting data for any statistical relationship between a participant's Big 5 openness score and their self reported openness score. This leads us to have no support towards hypothesis two in relation specifically to trait openness.

When it came to trait neuroticism in relation to the second hypothesis it was found that across high and low scores of an individual's Big 5 assessed neuroticism, participants would reliably predict higher values on their self assessed neuroticism score. This result wasn't unexpected due to neuroticism being categorized by general patterns of anxiety and self doubt, which could have possibly led participants to over predict their score. The regression 4 model run resulted in a significant relationship between self assessed and Big 5 assessed neuroticism, leading us to support hypothesis two in relation to trait neuroticism.

Looking at trait conscientiousness in relation to the second hypothesis, the regression two model run resulted in significant findings of a statistical relationship between a participants’ Big 5 and self assessed scores in trait conscientiousness. Participants who scored in low to neutral ranges of conscientiousness on the Big 5 assessment had the overall tendency to
predict lower values for their self assessed conscientiousness score. While participants who scored high on the Big 5 conscientiousness assessment reliably predicted higher values for their self reported conscientiousness score. This leads us to support hypothesis two in relation to trait conscientiousness.

Looking at trait agreeableness in relation to the second hypothesis, the regression one model run resulted in significant findings of a statistical relationship between participants’ Big 5 and self assessed scores in trait agreeableness. Participants who scored in low to neutral ranges of agreeableness on the Big 5 assessment had the overall tendency to predict lower values for their self assessed agreeableness score, while participants who scored very high reliably predicted higher values for their self reported agreeableness score. This leads us to support hypothesis two in relation to trait agreeableness.

Finally in looking at trait extraversion in relation to the second hypothesis, the regression two model run resulted in significant findings of a statistical relationship between a participants’ Big 5 and self assessed scores in trait extraversion. With participants who scored in neutral to high ranges of extraversion on the Big 5 assessment having the overall tendency to predict lower values for their self assessed extraversion score. While participants who scored low on the Big 5 extraversion assessment reliably
predicted higher values for their self reported extraversion score. Leading us to support hypothesis two in relation to trait extraversion.

When relating these results back to the primary purpose of the study, that being to look into the relationship between our psychologically assessed personality to the incongruencies our self image holds with it, hypothesis one had no support while hypothesis was supported for all traits except for openness. The results of the Regression 6 model point towards this being explained by the intersectional relationship in trait expression between the Big 5 (Linden, et al. 2010). The results that showed support for the second hypothesis in relation to the traits conscientiousness, extraversion, agreeableness and neuroticism are in line with the expectations based on Lacanian personality theory. Mainly the take away from his theory on the real, imaginary, and the symbolic that we can never describe, only roughly generalize and abstract through means of language (Lacan, 2007). The study's results also fall in line with the previous research outlining the impact of self deception on the alignment of psychologically measured and self assessed personality models (Barrick & Mount, 1996).

This study is not without limitations. One limitation was the fact that all measurements employed in the study were some variation of self report, causing even psychologically assessed results to be possibly influenced by personal beliefs, lack of personal objectivity, or falsification. These limitations were also exacerbated due to the medium of the study being an
online survey, with participants’ having no guidelines for time, environment and emotional state for completion. A detailed description of participants' reaction to the study or individual states can not be recorded thus leading to the possible influence of unknown extraneous factors due to non standardized response settings. While attempts were made to minimize the effects of this limitation through the use of pretested and validated self report scales, though self reporting biases are still a possible factor at play. Future research might look to more experimental measures of situation and behavior for analyzing participant personality trait scores.

Given the overall size and scale of this study's participant population, along with the studies results, no definitive broader conclusions can be made without further research. Though what the results of this study do hold in value is further evidence to show the interrelationships between our core personality traits that influence our self image. The study also provides evidence of a statistical relationship of divergence between an individuals psychologically measured trait score and their self assessed score for the same trait; as was found in traits Conscientiousness, Extraversion, Agreeableness and Neuroticism across the participant pool. Further research should be conducted to look deeper into how our personality traits and other possible factors interact to form our self image of our personality. Along with that, further analysis should be run on this study’s gathered data to look into the relationship the Dark and Light Triads hold in their six
traits that might influence participants’ personality disparity for better or worse, as it would be informative to see if the Dark and Light Triads are as influential to our self image as the core traits of the Big 5.

It’s apparent from the data gathered that in line with past research self deception did have a significant impact on participants’ ability to accurately report their personality along individual personality traits. The overall influence that self deception has on our overall formation of personal identity and our self concept is vital and important. These awarenesses in our personality can indirectly and unconsciously affect our lives in a myriad of ways, both positively and negatively. Regardless of who you are and what goals you set for yourself, “You” are the driving and orienting force behind achieving them. Through cultivating a better awareness and understanding of who we really are, with all of our desires, abilities, limitations and gaps in our individual webs of belief, we give ourselves the space and the skills to strive each day towards our goals as who we actually want to be.
References


https://doi.org/10.1186/s40359-020-00486-2


https://doi.org/10.1016/j.jrp.2010.03.003


https://doi.org/10.1111/j.0963-7214.2005.00355.x


Appendix A

Big 5 44 Question Inventory (John, & Srivastava, 1999)

For each of the following questions, please indicate what number for each statement to the extent to which you agree or disagree with that statement.

1) Disagree strongly
2) Disagree
3) Slightly Disagree
4) Neither agree nor disagree
5) Slightly Agree
6) Agree
7) Strongly agree

I see myself as someone who:

1. Is talkative
2. Tends to find fault with others
3. Does a thorough job
4. Is depressed, blue
5. Is original, comes up with new ideas
6. Is helpful and unselfish with others
7. Can be somewhat careless
8. Is relaxed, handles stress well
9. Is curious about many different things
10. Is full of energy
11. Starts quarrels with others
12. Is a reliable worker
13. Can be tense
14. Is reserved
15. Is helpful and unselfish with others
16. Generates a lot of enthusiasm
17. Has a forgiving nature
18. Tends to be disorganized
19. Worries a lot
20. Has an active imagination
21. Tends to be quiet
22. Is generally trusting
23. Tends to be lazy
24. Is emotionally stable, not easily upset
25. Is inventive
26. Has an assertive personality
27. Can be cold and aloof
28. Perseveres until the task is finished
29. Can be moody
30. Values artistic, aesthetic experiences
31. Is sometimes shy, inhibited
32. Is considerate and kind to almost everyone
33. Does things efficiently
34. Remains calm in tense situations
35. Prefers work that is routine
36. Is outgoing, sociable
37. Is sometimes rude to others
38. Makes plans and follows through with them
39. Gets nervous easily
40. Likes to reflect, play with ideas
41. Has few artistic interests
42. Likes to cooperate with others
43. Is easily distracted
44. Is sophisticated in art, music or literature

Scoring:

Table 1

<table>
<thead>
<tr>
<th>Trait</th>
<th>Question Number</th>
</tr>
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<tbody>
<tr>
<td>Extraversion:</td>
<td>1, 6R, 11, 16, 21R, 26, 31R, 36</td>
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<tr>
<td>Agreeableness:</td>
<td>2R, 7, 12R, 17, 22, 27R, 32, 37R, 42</td>
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<tr>
<td>Conscientiousness:</td>
<td>3, 8R, 13, 18R, 23R, 28, 33, 38, 43R</td>
</tr>
<tr>
<td>Neuroticism:</td>
<td>4, 9R, 14, 19, 24R, 29, 34R, 39</td>
</tr>
<tr>
<td>Openness:</td>
<td>5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44</td>
</tr>
</tbody>
</table>
Appendix B

Dark & Light Triad 24 Question Paired Inventory

Please respond to each of the following statements as either true or false according to your own feelings and beliefs

- 1 True / False
- 2 True / False

For each of the following statements please use the following scale to indicate what number for each statement to the extent to which you agree or disagree with that statement.

1) Disagree strongly
2) Disagree
3) Slightly Disagree
4) Neither agree nor disagree
5) Slightly Agree
6) Agree
7) Strongly agree

Question Pairs

1. I tend to manipulate others to get my way.
   10. I don’t feel comfortable manipulating people to do something I want.
2. I have used deceit or lied to get my way.
   11. I like to be authentic even if it may damage my reputation.
3. I have used flattery to get my way.
   9. I prefer honesty over charm.
4. I tend to exploit others towards my own end.
   2. I tend to trust that other people will deal fairly with me.
5. I tend to lack remorse.
   4. I’m quick to forgive people who have hurt me.
6. I tend to be callous or insensitive
   7. I tend to treat others as valuable
8. I tend to be cynical.
   1. I tend to see the best in people.
9. I tend to want others to admire me.
   5. I tend to admire others.
10. I tend to want others to pay attention to me.
   8. I enjoy listening to people from all walks of life.
11. I tend to seek prestige or status.
   6. I tend to applaud the successes of other people.
12. I tend to expect special favors from others.
   12. When I talk to people, I am rarely thinking about what I want from them.

Scoring

Table: 2

<table>
<thead>
<tr>
<th>Dark and Light Triad Scale Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait</td>
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<tr>
<td>Faith in Humanity:</td>
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<tr>
<td>Humanism:</td>
</tr>
<tr>
<td>Kantianism:</td>
</tr>
<tr>
<td>Narcissism:</td>
</tr>
<tr>
<td>Psychopathy:</td>
</tr>
<tr>
<td>Machiavellianism:</td>
</tr>
</tbody>
</table>
Appendix C

11 Question Self-Report Big 5, Dark & Light Triad Inventory

Next you will be asked to identify the prevalence of personality traits for what your personality is now. For each trait please select the number that best fits how high or low in prevalence each trait is in your present personality.

While we are not looking at the results of your specific personality test for deeper analysis, just the accuracy of the test. In order to do this we need a hyper accurate baseline measure on your personality traits as they are now in order to check the test against. Your self-assessment of your present personality will be used as this baseline, as there is no one who knows you better than yourself. It is of the highest importance that your responses in the next section are completely honest as an accurate baseline measure is required inorder to assess the accuracy of the psychological test. It is important to remember at this time, that no Personal Information of any kind will be connected to any form of the results of this survey.

Response Format: 10 point Likert Scale (1-10;strongly disagree-strongly agree)

1. Openness to new ideas
   - High Openness to new experience is considered the willingness to try new things, understanding new ideas and concepts, and a curiosity to pursue and engage in a variety of experiences.

2. Conscientiousness
   - (con·sci·en·tious·ness | kán·təsh·ə·nəs) High conscientiousness is associated with tendency to regulate behavior and self control vs impulsivity, and spontaneity in appeal to an ordered process.

3. Extraversion
   - (ex·tro·ver·sion | ek·stra·ver·zhan) People high in extraversion are usually oriented towards social interaction and external engagement with the world around them as well as tending to focus on a breadth of topics instead of a depth in a specific few.

4. Agreeableness
   - High agreeableness is linked with general open mindedness towards the intentions of others and a willingness and desire to get along with others and a need for social appeasement and conflict de-escalation.

5. Neuroticism
   - (neu·rot·ic·ism | nù·ræ·təs·izəm) High neuroticism is associated with a disposition towards having negative emotions such as anger, anxiety, or depression and a tendency for more emotional instability and a low tolerance for stress.

6. Humanism
   - (hu·man·ism | hyü·ma·nizəm) Higher levels of humanism is characterized by a stronger belief in the inherent dignity and worth of other individual humans.

7. Kantism
   - (Kant·ism | kænt·izəm) People who have high kantianism treat people as ends unto themselves rather than unwitting pawns

8. Faith in humanity
   - High faith in humanity is associated with an overall tendency to see the best in people and their intentions along with the belief that most people are basically good in nature.

9. Psychopathy
   - (psy·chop·a·thy | sī·kā·pə·thē) Individuals high in trait psychopathy commonly exhibit antisocial behavior, they are prone to risk taking, and can be emotionally volatile. In their social relationships they tend to act in a manipulative manner showing a lack of empathy and show little to no remorse.

10. Narcissism
    - (nar·cis·sis·m | nār·səs·izəm) Narcissistic individuals often come across as selfish and arrogant due to a tendency to feel superior or entitled in comparison to others. They often are hypersensitive to criticism and act unsympathetically, not validating opposing perspectives.

11. Machiavellianism
    - (Ma·chii·a·vil·li·an·ism | mā·kē·ə·vē·lē·ən·izəm) People with a high level of the personality machiavellianism tend to be self interested, deceptive individuals whose actions lack emotion and a moral code. They often approach social relationships from the perspective that other individuals are like puppets, a pawn to be manipulated for their own interests.
Appendix D

Informed Consent Statement

Purpose of the research study: To assess the accuracy of a new psychological assessment of personality.

What you will do in the study: You will be asked to first complete two different personality tests then followed by some demographics questions.

Time required: The survey will require approximately 60 minutes to complete.

Risks to Participants: There are no physical or psychological risks beyond those in everyday life. You will be fully debriefed at the end of the survey.

Benefits to Participating: There are no direct benefits to you for participating in this research study.

Confidentiality: The information that you give will be handled anonymously and confidentially. Your information will be assigned a code number; however, your name or any other identifying personal information will not be linked with your participant number and will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary.

How to withdraw from the study: If you are participating online, please exit the web browser at any time. There is no penalty for withdrawing, and you will still receive full credit for participation in the study. If you still would like credit but wish to withdraw, please stop answering questions, advance to the end of the study, and submit. You will be redirected to a new screen that will provide you information on how to receive credit. It is the only way we will know that you participated in the online study. Your data will be destroyed. If you would like to withdraw after your materials have been submitted, please contact Austin Jandrucko at ajandrucko@wpi.edu.

Payment: Those participating for a class requirement via the Psychology Participant Pool will earn .5 experiment participation credit for this study. If you are doing this for extra credit, you will get extra credit.

Who to contact if you have questions about the study:
  Austin Jandrucko, Psychology Major, WPI
  Telephone: (845) 527-0091
  Email: ajandrucko@wpi.edu

Who to contact about your rights in the study: WPI IRB Manager (Ruth McKeogh, 508-831-6699, Email: irb@wpi.edu) or Human Protection Administrator (Gabriel Johnson, 508-831-4989, Email: gjohnson@wpi.edu).

Agreement: By clicking "Agree", you indicate that you agree to participate in the study.
Appendix E

Demographics Section of the Online Survey

In this Final section you will be asked to fill out some simple demographics information in order to get a better understanding of you as a participant.

1. What is your age? (in years)
   - ________

2. What is your Gender Identity? (please select all that apply)
   - Cisgender
   - Masculine
   - Feminine
   - Transgender - MtF
   - Transgender - FtM
   - Non-binary
   - Other

3. Have you taken a psychological assessment of Personality before? (ex; Myers-Briggs, Big 5, typefinder 16 personalities, Enagram, DiSC, ....)
   - Yes
   - No
   - I Don’t Know

4. What is/are your Major/s at WPI? (Please do not use abbreviations)
   - ________

5. If applicable, What is/are your Minor/s at WPI? (Please do not use abbreviations)
   - ________

6. What Race or Ethnicity do you identify as? (select all that apply)
   - White
   - Black or African American
   - American Indian or Alaska Native
   - Asian
   - Native Hawaiian or Pacific Islander
   - Latinx or Hispanic
   - Other

7. What if any Religion or system of Spiritual belief do you believe in? (select all that apply)
   - Agnostic (Open minded towards spiritual or religious beliefs but doesn't accept any formal religious or spiritual system)
   - Atheist (No or Lack of Spiritual or religious belief)
   - Judaism
   - Christianity
   - Islam
   - Hinduism
   - Buddhism
   - Sikhism
   - Indigenous tradition or alternative Spiritual system
Figures

Figure 1

Scatter Plot of Total Disparity by O
Figure 2

Scatter Plot of Total Disparity by C

Conscientiousness Big 5 Score

Total Personality Disparity
Figure 3

Scatter Plot of Total Disparity by E

Extraversion Big 5 Score
Figure 4

Scatter Plot of Total Disparity by Agreeableness Big 5 Score
Figure 5
Figure 6 Regression Model 1

Scatterplots of Big 5 trait Agreeableness score and self assessed trait Agreeableness score overlayed with their resulting regression equation

Key:
X-axis = Individual Big 5 Trait score
Y-axis = Self assessed Individual trait score
A = Big 5 Agreeableness
SA = Self-Assessed Agreeableness
Figure 7 Regression Model 2

Scatterplots of Big 5 trait Conscientiousness score and self assessed trait Conscientiousness score overlayed with their resulting regression equation

Key:

X-axis = Individual Big 5 Trait score
Y-axis = Self assessed Individual trait score
C = Big 5 Conscientiousness
SC = Self-Assessed Conscientiousness
Figure 8 Regression Model 3

Scatterplots of Big 5 trait Extraversion score and self assessed trait Extraversion score overlayed with their resulting regression equation

Key:
X-axis = Individual Big 5 Trait score
Y-axis = Self assessed Individual trait score
E = Big 5 Extraversion
SE = Self-Assessed Extraversion
Figure 9 Regression Model 4

Scatterplots of Big 5 trait Neuroticism score and self assessed trait Neuroticism score overlayed with their resulting regression equation

Key:

X-axis = Individual Big 5 Trait score
Y-axis = Self assessed Individual trait score
N = Big 5 Neuroticism
SN = Self-Assessed Neuroticism
Figure 10 Regression Model 5

Scatterplots of Big 5 trait Openness score and self assessed trait Openness score overlayed with their resulting regression equation

Key:
X-axis = Individual Big 5 Trait score
Y-axis = Self assessed Individual trait score
O = Big 5 Openness
SO = Self-Assessed Openness