Presentation Matters: Effects of Presentation Order of Personality Feedback and Need for Structure on Participant Response to Feedback

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Presentation Matters: Effects of Presentation Order of Personality Feedback and Need for Structure on Participant Response to Feedback

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Psychology

by

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Abstract

Psychological assessment plays a vital role in differential diagnosis, treatment planning, and measurement of treatment effectiveness. Insufficient or ineffective feedback to the client can limit the utility of psychological assessment. Finn and Tonsager (1997) advise that assessment feedback will be best received when the feedback content is ordered to start with information that is most consistent with the client’s existing self-concept to information that is the most discrepant from their self-concept. There is minimal empirical support for this practice recommendation. The current study investigates the relationship between presentation order of personality feedback and participant response to feedback (i.e., feedback evaluations, feedback acceptance, recommendation follow-through). College students ($n = 184$) completed a personality assessment and were randomly assigned into two conditions in which the sequencing of feedback was manipulated (e.g., self-view congruent and self-view discrepant), then asked to report their response to the feedback information. Participants in the self-view congruent condition reported significantly higher perceived value of the feedback, compared to participants in the self-view discrepant condition. Feedback condition did not significantly impact positive emotions, feedback acceptance, nor recommendation follow-through. Need for structure did not moderate the relationship between feedback condition and feedback acceptance. These findings offer partial support for Finn and Tonsager’s (1997) recommendations of strategically ordering assessment feedback. If replicated in clinical samples, findings suggest that ordering assessment feedback results to start with self-view congruent information compared to self-view discrepant information is likely to result in high perceived value of feedback information.
Acknowledgements

I dedicate this work to my grandmother, Aline Etheridge Mobley.

I would like to express my deepest gratitude to Dr. Lindsay Ham for ten years of professional and personal mentorship. You have changed the trajectory of my life. Thank you to Vincent Tu for your steadfast support of all my endeavors. Thank you to my big sister, Amina Mobley, for pushing me to reach higher.
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Presentation Matters: Effects of Presentation Order of Personality Feedback and Need for Structure on Participant Response to Feedback

Psychological assessment is the practice of collecting and integrating information about a client’s characteristics and capabilities (American Psychological Association, 2020). Assessment plays a vital role in differential diagnosis, treatment planning, measurement of treatment effectiveness, and forensic evaluation. Assessment feedback is an explanation of assessment results to the client or designated representative in written and/or verbal format. Insufficient or ineffective feedback to the client can limit the usefulness of an assessment. Despite the increased delivery of assessment feedback to clients over the past 60 years (Fischer, 2000; Jourard, 1972), there continues to be large discrepancies in feedback delivery practices. These discrepancies could be influenced by the lack of clear research support of best practices for assessment feedback. Given the importance of utilizing of evidence-based practice guidelines to provide high-quality psychological assessment, the present study examines how assessment feedback presentation order effects participant’s response to feedback and the extent to which individual differences in need for structure impacts this relationship.

A small body of work has examined the frequency of assessment feedback delivery and training in feedback delivery practices. Smith and colleagues (2007) surveyed 719 practicing psychologists and found that 71% of respondents “usually or almost always” provided in-person assessment feedback (p. 313). Curry and Hanson (2010) surveyed 468 clinical, counseling, and school psychologists in the United States about feedback practices, training, and supervision. They found that 91.7% reported delivering verbal feedback at least some of the time, yet only 35% provide feedback for every assessment. One-third of psychologists reported that their doctoral training before internship (35.6%) and during internship (33.5%) prepared them “very
little” or “not at all” for providing feedback to clients. Psychologists that reported frequently providing feedback despite little to no feedback training indicated primarily learning “via self-instruction through a process of trial and error” (Curry & Hanson, 2010, p. 331). Although providing assessment feedback has become more common in recent years, there remain disparities in feedback training and approach. These disparities could be due to a lack of empirically supported guidelines for delivering feedback.

Several authors have proposed practice recommendations for providing feedback based on clinical observation (Finn, 1996; Fischer, 1970; Glass & Brown, 1992; Gorske & Smith, 2018; Pope, 1992; Richman, 1967). Some of these psychologists described the importance of intentionally sequencing the feedback information to improve alliance and facilitate acceptance of the feedback (Finn, 1996; Glass & Brown, 1992; Gorske & Smith, 2009, Richman, 1967). Richman (1967), an early advocate for psychological assessment feedback, criticized clinical psychologists for being concerned about the presentation of their test results for every audience except their patients. Richman’s guidelines instructed clinicians to begin the feedback session with didactic instruction about the psychological assessment followed by a detailed explanation of the individual’s results. Richman advised organizing feedback sessions by starting with the encouraging results and slowly presenting the problem areas in layers. He discouraged presenting the most severe pathology before placing the problems in the context of the entire personality pattern.

Building off Richman (1967), Finn (1996) developed the therapeutic assessment model to produce therapeutic improvement in the clients from the assessment process alone. Finn and Tonsager (1997) also posited that psychological assessment is therapeutic because it addresses three basic human motives: self-verification, self-enhancement, and self-efficacy/self-discovery.
Self-verification is the motivation to confirm the client's views about themself and the world, even if those views are negative (Swann & Read, 1981). Self-enhancement is the motive to view oneself positively and engage in self-promoting biases that maintain a positive self-concept (Allport, 1937). Self-efficacy is the motivation to learn more about oneself with the goal of future growth and self-improvement (Bandura, 2015). In agreement with Richman (1967), Finn and Tonsager (1997) advised strategically layering feedback material in three levels in accordance with these three motives. Level one material (presented first) should be information that the client is familiar with and will readily accept, addressing the need for self-verification and decreasing the client’s anxiety about the feedback. Level two information reframes the client’s self-concept and labels and contextualizes unnamed experiences. This reframing addresses the need for self-enhancement because it offers a positive way of viewing behavior. For example, a client’s negative belief that they have a lazy personality can be reframed in the context of a depressive disorder with clear treatment recommendations. Finn and Tonsager (1997) also posit that this self-enhancement is also served through the respect and positive regard offered by the feedback clinician. Many clients are ashamed of their shortcomings and fearful that the assessment process will be humiliating. Psychologist openness and positive regard can reduce this perspective of shame. Finn advised that most of the feedback session should be dedicated to level two information. Finally, level three information varies the most from the client’s self-concept and is likely to be rejected. Finn noted that too much discussion of level three information could cause negative emotions at the end of the session. This level addresses self-efficacy through “naming” the client’s experiences which can give them the language to communicate their experiences, see connections with others, and generate novel solutions (Finn and Tonsager, 1997, p. 382).
There has only been one study that empirically supports the utility of Finn and Tonsager’s (1997) layered feedback approach. Schroeder, Hahn, Finn, and Swann (1993, as cited in Finn & Tonsager, 1997) asked college students to estimate their standing compared to their peers on the Multidimensional Personality Questionnaire (MPQ; Tellegen & Waller, 2008). Researchers computed a difference score of the students’ expected scores compared to their actual scores and separated personality traits into one of three individualized groups: congruent traits, mildly discrepant, and highly discrepant from their self-concept. Experimenters varied the order the feedback was delivered to the students based on feedback type. Researchers found that students who received the mildly discrepant feedback on level 2 reported feeling more positively about the feedback and were more impacted by the feedback, compared to the other two groups. The results persisted at the 2-week follow-up (Schroeder et al., 1993, as cited in Finn & Tonsager, 1997). These results were presented at the Fifth Annual Convention of the American Psychological Society but are not available in print (Finn & Tonsager, 1997).

Despite the lack of evidence about Finn and Tonsager’s (1997) strategic layering approach, there is empirical support for individual differences in preferences for feedback type. Kwang and Swann (2010) conducted a meta-analytic review of self-verification and self-enhancement studies by comparing both cognitive and affective responses to feedback. Results indicated that self-enhancement strivings were related to affective responses (i.e., participants reported more positive affect in response to positive feedback than negative feedback, regardless of their self-concept). Conversely, self-verification strivings were related to cognitive responses (i.e., participants with positive self-concepts devoted more attention to positive feedback and perceived positive feedback as more accurate, participants with negative self-concepts devoted more attention to negative feedback and perceived negative feedback as more accurate).
Similarly, Joiner and colleagues (1997) found that youth (ages 7 – 17) in a psychiatric inpatient center found that interest in negative feedback was significantly associated with the cognitive aspect of depression (self-esteem) rather than emotional aspects of depression (negative affect).

Recent research indicated that this preference for self-verification feedback may vary depending on individual differences, including social anxiety symptoms (Howarth & Forbes, 2015), depressive symptoms (Joiner, 1995; Swann et al., 1992), self-esteem (Giesler et al., 1996), borderline personality disorder symptoms (Lindenboim, 2010), and relationship with the assessor (Kwang & Swann, 2010). Another individual difference that could affect preference for self-verification feedback could be the degree to which the person prefers predictability.

The desire for self-verification may be particularly prominent in individuals who have a strong desire for predictability and stability. Vaughan-Johnston and Jacobson (2020) posited that feedback might be differentially attractive to people depending on their predominant psychological needs and found that need for closure was positively associated with feedback that is consistent with pre-existing beliefs. Need for closure has been defined as the degree to which an individual desires certain, stable knowledge and experiences a degree of discomfort with ambiguity (Kruglanski, 1990). A highly correlated construct to need for closure is need for structure (Leone et al., 1998), defined as the degree to which an individual desires to cognitively structure their worlds in unambiguous, stable, and predictable ways (Neuberg, & Newsom, 1993). Individuals with high need for structure tend to desire stable knowledge, experience stress when presented with ambiguity, exhibit greater reliance on pre-existing knowledge compared to new information, and generate fewer alternative hypotheses (Roets et al., 2015). High aversion of uncertainty has been linked to more polarized trust judgments of others (i.e., high trust in
close others and low trust in distant others) (Acar-Burkay et al., 2014) which may impact clinician-client alliance in assessment feedback.

Kruglanski (1990) posited that individuals with high aversion toward uncertainty will negatively react to inconsistent information even if the information is positive because inconsistency lowers their sense of subjective confidence. Di Santoa (2020) found that individuals who are high on need for cognitive closure have a greater preference for consistent feedback about both themselves and the world compared to those who endorsed low need for closure. Di Santoa and colleagues (2020) replicated these findings by having participants complete four rounds of a cognitive task and reviewing false feedback about their performance. After each of the first three rounds, participants received a feedback score between the 60th and 63rd percentile. After round four, participants received either consistent neutral feedback (i.e., 61st percentile), inconsistent positive feedback (i.e., 92nd percentile), or inconsistent negative feedback (i.e., 29th percentile). High aversion toward uncertainty individuals reported significantly more negative affect when they received inconsistent feedback compared to consistent feedback, regardless of whether the inconsistent feedback was positive or negative (Di Santoa et al., 2020). Need for predictability and stability, described in the present study as need for structure, likely impacts individual preferences for psychological assessment feedback approaches.

Further research is needed to assess the utility of Finn and Tonsager’s (1997) strategic layering approach and individual differences that may impact its utility. “Psychologists have a long history of evaluating the psychometric properties of assessment instruments (e.g., reliability, validity), but it is time for them to also become involved with evaluating the quality of assessment delivery systems and methods of improving such systems” (Garb et al., 2009, p.8).
The present study is one step towards evaluating the quality of assessment delivery systems by examining the efficacy of the strategic layering approach in assessment feedback and the impact of the individual characteristic, need for structure, on this approach.

The Current Study

The present study investigated the relationship between presentation order of personality feedback and participant response to feedback (i.e., feedback evaluations, feedback acceptance, and recommendation follow-through). Participants completed a personality assessment and made predictions about the results of the assessment. For each of the five personality traits assessed, an absolute value difference score was calculated between the personality assessment scores and the participant’s predicted scores. Participants were randomly assigned into two conditions in which the sequencing of feedback was manipulated: 1) self-view congruent presentation order and 2) self-view discrepant presentation order. Participants in the self-view congruent condition received their personality assessment feedback organized from most congruent with their existing self-concept to most discrepant. Participants in the self-view discrepant condition received their personality assessment feedback organized from most discrepant with their existing self-concept to most congruent. Following feedback, participants were assessed on measures of feedback session evaluations (e.g., value of feedback and post-feedback emotions), feedback acceptance, and recommendation follow-through.

Finn and Tonsager (1997) suggest that assessment feedback will be best received when the feedback content is ordered to start with information that is most consistent with the client’s existing self-concept to information that is the most discrepant from their self-concept. Drawing from this work, the present experiment tested the hypotheses that among college students who
receive personality assessment feedback, participants in the self-view congruent condition (i.e., receive feedback information ordered from most congruent information compared to their self-concept to most dispersant), compared to participants in the self-view discrepant condition (i.e., receive feedback information ordered from most discrepant information to most congruent), would view the feedback as more valuable (Hypothesis 1), report more positive emotional response to the feedback (Hypothesis 2), and report more acceptance of the feedback information (Hypotheses 3). Participants in the self-view congruent condition were also predicted to display more follow-through with feedback recommendations compared to participants in the self-view discrepant condition (Hypothesis 4). Finally, it was predicted that need for structure would moderate the relationship between feedback presentation order and acceptance of the feedback (Hypotheses 5). Participants with a high need for structure who were assigned to the self-view congruent feedback condition were expected to report more acceptance of the feedback compared to the participants in the self-view discrepant condition.

**Method**

**Participants**

Participants in the data analytic sample were 184 college students from the University of Arkansas, $M_{age} = 19.46, SD_{age} = 1.36$, 74% female, 80% White Non-Hispanic, 24% completed a professional psychological assessment in the past (see Table 1 for full demographic information). Participants who were recruited from the general psychology subject pool or through other undergraduate psychology courses students were compensated with course credit. Participants who responded to advertising flyers and social media posts were compensated with Amazon gift cards. Figure 1 displays the participant flow by recruitment method.
A power analysis was conducted to estimate the sample size necessary to conduct the moderation analysis using G*Power 3.1 (Faul et al., 2007). I used an effect size from Di Santo and colleagues (2020), which found a significant interaction between need for closure and inconsistency/consistency conditions on negative affect ($\eta^2 = .05$). The a priori power analysis for an ANCOVA ($\alpha = .05$, power = .80, and Cohen’s $f = .189$, $df = 1$, number of groups = 2, number of covariates = 1) resulted in an estimated total sample size of 222. Due to significant participant attrition, $n = 183$, between time one ($N = 384$) and two ($n = 201$), in addition to cases removed during data cleaning ($n = 17$), I was unable to obtain this suggested sample size (see Figure 1).

**Measures**

**Demographics.** Participants reported age, gender, race, and ethnicity. Participants reported whether they have had previous experience with therapy or psychological assessment.

**Need for structure.** The Personal Need for Structure Scale (PNS; Thompson et al., 2001) is an 11-item, self-report measure that assesses preference for structure and clarity, with an annoyance for ambiguity (Appendix B). NFS included a total score of need for structure and three subscales within need for structure: preference for orderliness, discomfort with unpredictability, and distain for ambiguity. Respondents rated their agreement on a 6-point scale (1 = *strongly disagree* to 6 = *strongly agree*). All items were summed with higher scores indicating more need for structure. PNS is a widely used measure of need for structure and has good validity and reliability (Neuberg & Newsom, 1993). Cronbach’s alpha in the present study for the PNS scale was .68, approaching the common alpha cut-off of .70 (George & Mallery, 2003). Kent (2001) proposed that alphas of .50 or .60 are acceptable for preliminary research such as this study.
**Personality assessment.** The Personality Inventory for DSM-5 (PID-5; Markon et al., 2013) is a 218-item self-report measure that assesses 25 personality trait facets (Appendix C). To capture personality feedback that may be aversive to participants, the facets of callousness, deceitfulness, grandiosity, hostility, and manipulativeness were selected for this study. Respondents rated items on a 4-point scale (0 = *very false or often false*, 3 = *very true or often true*). Responses were averaged for each trait. After completing a pilot study (*n* = 131) to assess the accuracy of participants personality trait prediction ratings compared to the PID-5, I decided to set both the Personality Trait Prediction scale and the PID-5 feedback to a 30-point scale (i.e., each PID-5 scale score x 10) to capture a more nuanced view of the variability in difference scores between the two measures.

At feedback, participants were given their predicted score, their actual PID-5 score (converted to a 30-point scale), and the percentile rank of each PID-5 score, based on the normative population norms (Krueger et al. 2012). The PID-5 has demonstrated excellent validity and reliability (Nagy et al., 2022; Bagby et al., 2022; Sellbom et al., 2020). Cronbach’s alpha in the present study for the PID-5 trait scales were within the acceptable range (see Table 2).

**Participant self-perception.** Participants were asked to predict their scores on the PID-5 using the novel Personality Trait Prediction Scale (Appendix D). Respondents were provided with a description of each personality trait. After reading the trait description information, respondents were asked to predict their scores for each of the five personality traits on a 30-point sliding scale (with 0 indicating the lowest level of the personality trait and 30 indicating the highest level). The absolute value difference score between the PID-5 and the Personality Trait Prediction Scale for each personality trait was used to determine the order of the feedback.
**Feedback evaluation.** The Session Evaluation Questionnaire (SEQ; Stiles et al., 2002) is a 21-item, client-report evaluation of a psychotherapy session based on four dimensions: depth, smoothness, positivity of post-session emotions, and post-session emotional arousal (Appendix G). Depth refers to the value of the session (i.e., powerful and valuable vs. weak and worthless). Smoothness refers to the post-session emotion (comfortable and relaxed vs. tense and distressing). Respondents are instructed to rate how they feel about the sessions using a 7-point bipolar adjective format (e.g., difficult = 1, easy = 7). Scores for each dimension are averaged, with higher scores indicating greater depth, smoothness, positivity, and arousal (range = 1-7). The subscale of depth was used in the analysis to measure perceived value of feedback and the subscale of positivity was used to measure positive emotions. The SEQ has demonstrated excellent internal constancy (Reynolds et al., 1996) and reliability (Stiles & Snow, 1984). Cronbach’s alpha in the present study for the SEQ subscales were within the acceptable range (see Table 2).

**Acceptance of feedback.** Feedback acceptance was measured using the Feedback in Learning Scale (FLS; Jellicoe & Forsythe, 2019), a 34-item, self-report measure of feedback integration (Appendix H). FLS assesses five factors of feedback integration: 1) feedback acceptance (i.e., recognition that the feedback they received is related to themselves), 2) credible source (e.g., extent to which learners found the source of feedback credible), 3) awareness of feedback (i.e., the participant reports having a greater understanding of themselves), 4) motivational intentions (i.e., desire to take actions related to the feedback), and 5) behavioral change. Questions regarding behavioral change were excluded from this study because participants did not have adequate time after receiving the feedback to implement behavioral changes. Respondents rate items on a 6-point scale (1 = strongly disagree to 6 = strongly agree).
Higher averaged scores indicate greater endorsement of each factor. Feedback acceptance was the only subscale used in the analysis. FLS is a recently developed scale that has displayed initial evidence of internal consistency (Jellicoe & Forsythe, 2019). Cronbach’s alpha in the present study for the FLS subscales were within the acceptable range (see Table 2).

**Recommendation follow-through.** Feedback recommendation follow-through was assessed using a behavioral assessment. After reviewing their personality feedback results, participants were recommended to email the experimenter for specific information about how to improve their productivity and interpersonal effectiveness based on their personality style. Participants were also asked if they intended to follow-through with the recommendations. Response options of “yes,” “maybe,” and “no” were recorded as a categorical measure of immediate intention to follow-through with the recommendation. Sending or failing to send an email to the experimenter within two weeks of study participation was coded as a dichotomous measure (yes/no) of recommendation follow-through.

**Procedure**

Data collection was completed virtually, using Qualtrics, over two-time points. Participants received independent compensation for their participation in each time point.

**Time 1.** Participants were given an overview of the study and provided informed consent. Participants completed measures of demographic information, the PNS, and PID-5. Following a written explanation describing the five personality dimensions, participants were asked to predict their scores on the PID-5 based on the five dimensions presented (as shown in Appendix D). Participants were then compensated for their time and were informed that within two weeks they would receive their individualized personality assessment feedback and would be asked to complete follow-up questionnaires.
Upon completion of Time 1, participants were randomly assigned to one of two groups which determined the feedback presentation order: 1) self-view congruent or 2) self-view discrepant. An absolute value difference score was measured between the results of the PID-5 and the participant’s predicted results. This difference score was used to determine the individualized order of the feedback presentation of the five personality traits. Feedback of the personality traits for participants in the self-view congruent condition were placed in ascending order of difference scores. Feedback of the personality traits for participants in the self-view discrepant condition were placed in descending order of difference scores. Example of feedback in both the self-view congruent and discrepant conditions are provided in Appendix E and F, respectively.

**Time 2.** Participants were emailed a Qualtrics link with their PID-5 feedback. The presentation order of the feedback was determined by their condition. Following feedback, participants were asked to report their reaction to the feedback using the SEQ and the FLS. Participants were recommended to email the experimenter for specific information about how to improve their productivity and interpersonal effectiveness based on their personality style. Finally, participants were debriefed and compensated.

**Data Analytic Approach**

**Preliminary Analysis:** First, I checked for outliers and missing data. I removed participants for inattentive responding, defined as incorrectly answering at least 2 of the 3 attention check questions embedded throughout the surveys. I then tested the effectiveness of random assignment on demographic factors, NFS scores, and PID-5 scores. Any extreme outliers (identified using Tukey’s method) were removed. If there were variables showing significant
differences between feedback order conditions, they would be entered into the primary analysis as a covariate.

**Primary Analysis:** To examine the first hypothesis, a two-tailed independent sample \( t \)-test was conducted to assess the effect of feedback order condition, as the dichotomous independent variable (self-view congruent vs. self-view discrepant), on perceived value of feedback, as the continuous dependent variable. To examine the second hypothesis, a two-tailed independent sample \( t \)-test was conducted to assess the effect of feedback order condition on positive emotional response to feedback, as the dependent variable. To test hypothesis 3, a two-tailed independent sample \( t \)-test was conducted to assess the effect of feedback order condition on acceptance of feedback. To examine hypothesis 4, a chi-squared test was conducted to assess the effects of feedback order on recommendation follow-through. The \( p \)-value was set to .05. Homogeneity of variance assumption across conditions was assessed using Levene’s Test for the Equality of Error Variances.

Moderation was tested consistent with Rockwood and Hayes (2020) recommendations and performed using SPSS version 4.1 with Hayes’ (2021) PROCESS macro model 1 with bias-corrected bootstrapping (with 2000 replicates) to identify the moderating effect of PNS on the relationship between feedback presentation order and acceptance of feedback as the dependent variable.

**Results**

**Preliminary Analysis:** Five participants were removed for inattentive responding. Twelve participants were removed due to missing data. Nine extreme outliers were removed in the variables of callousness \( (n = 1) \), grandiosity \( (n = 5) \), and age \( (n = 3) \). Outliers in PID-5 scores (i.e., callousness and grandiosity) were removed because the feedback they received about these
personality traits was more extreme compared to the broader sample. Age was considered an important factor because older individuals are expected to have higher rates of need for structure (Rice et al., 1991) and prior to removing the age outliers, the variance in age was not homogeneous across conditions according to Levene’s Test, $F(176) = 6.59, p = .01$. To assess the impact of excluding these outliers from the sample, the primary analysis was conducted with the outliers. Including the 9 outliers in the sample did not meaningfully change the results.¹

¹ The following results are the primary analysis conducted with the 9 outliers included in the sample ($n = 193$) using the data analytic approach described above. These results are consistent with the results in the sample with outliers removed. Participants in the self-view congruent condition, $M = 4.51, SD = 1.07$, viewed the personality feedback as significantly more valuable compared to the participants in the self-view discrepant condition, $M = 4.14, SD = 1.02$, $t(191) = 2.37, p = .02$, with a small effect size, $d = .34$. There was no significant difference between participants in the self-view congruent condition, $M = 4.59, SD = 1.05$, compared to the participants in the self-view discrepant condition, $M = 4.34, SD = 1.01$, in positive emotions, $t(191) = 1.63, p = 1.06, d = .24$. Additionally, there was no significant difference between participants in the self-view congruent condition, $M = 3.95, SD = 1.15$, compared to the participants in the self-view discrepant condition, $M = 3.86, SD = 1.33$, in feedback acceptance, $t(191) = .49, p = .62, d = .07$. Feedback condition did not impact participants’ recommendation follow-through, $\chi^2 (2, N = 193) < .00, p = .94$.

Moderation was tested to identify the moderating effect of PNS on the relationship between feedback presentation order and acceptance of feedback as the dependent variable. The model as a whole was not significant, $F(3,189) = 1.10, p = .35$, $R^2 = .02$. 


The final sample contained 184 participants (see Table 1 for demographic variables). There were no significant differences found between feedback conditions in demographic factors, PID-5 scores, and PNS scores (see Table 1), indicating effective random assignment. Skewness and kurtosis values were in the acceptable range and Levene’s Tests indicated the homogeneity of variance assumption was met for PID-5 traits, PNS, and the dependent variables: value of feedback, positive emotions, and feedback acceptance (see Table 2). See Table 3 for the correlations between PID-5 scores, personality trait/prediction difference scores, need for structure, and dependent variables.

Overall, few participants (<0.01-5%) were able to accurately predict their scores on the personality assessment. Seventy-one percent of participants overestimated their callousness scores. On the remaining 4 personality traits, the majority of participants underestimated their scores (e.g., 77% deceitfulness, 58% grandiosity, 73% hostility, 72% manipulativeness), see Table 4. Most participants received feedback that they are higher on the personality traits (with the exception of callousness) than they predicted.

**Primary Analysis:** To examine the first hypothesis, a two-tailed independent sample t-test was conducted to assess the effect of feedback order condition, as the dichotomous independent variable (self-view congruent vs. self-view discrepant), on perceived value of feedback, as the continuous dependent variable. Results are shown in Table 5. Consistent with hypothesis one, participants in the self-view congruent condition, $M = 4.50$, $SD = 1.08$, viewed the personality feedback as significantly more valuable compared to the participants in the self-view discrepant condition, $M = 4.11$, $SD = 1.03$, with a small effect size, $d = 0.37$.

The remaining hypotheses were not supported. Feedback condition did not significantly impact positive emotions nor feedback acceptance (see Table 5). As depicted in Table 6,
feedback condition did not impact participants’ immediate intention to follow through with the recommendation to email the experimenter nor their actual recommendation follow-through of sending the email.

Moderation was tested to identify the moderating effect of PNS on the relationship between feedback presentation order and acceptance of feedback as the dependent variable. The model as a whole was not significant, \( F(3,180) = .88, p = .81, R^2 < .01 \). As shown in Table 7, the direct effects of feedback condition on feedback acceptance and PNS on feedback acceptance as well as the interaction effect were not significant.

**Discussion**

The current study tested the relationship between presentation order of personality feedback and participant response to feedback (i.e., perceived value of feedback, positive emotional response, feedback acceptance, recommendation follow-through). The extent to which need for structure moderated this relationship between feedback condition and feedback acceptance was also tested. Overall, I found support for the hypothesis that presenting the feedback information in a self-view congruent order compared to self-view discrepant order resulted in significantly higher participant ratings of perceived value of the feedback. These findings offer partial support for Finn and Tonsager’s (1997) recommendation that assessment feedback will be best received when the feedback content is ordered to start with information that is most consistent with the client’s existing self-concept to information that is the most discrepant to their self-concept. This is the first known study to empirically investigate the Finn and Tonsager (1997) strategic layering approach, with the exception of the unpublished conference presentation by Schroeder, Hahn, Finn, and Swann (1993, as cited in Finn & Tonsager, 1997)
Contrary to the hypotheses, feedback condition did not significantly impact positive emotions after receiving feedback. Feedback condition also did not significantly impact acceptance of feedback. These finding contradict Finn and Tonsager’s (1997) claim that the strategic layering approach would cause increased acceptance of feedback. Kwang and Swann (2010) meta-analytic review indicated that self-verification strivings were related to cognitive responses to feedback and self-enhancement strivings were related to affective responses. Because this study examined self-verification stiving by highlighting the discrepancy between participant personality test results and existing self-concept, the significant difference in cognitive response (i.e., perceived value of feedback) and lack difference in emotional response (i.e., positive emotions) is consistent with Kwang and Swann (2010). Acceptance of feedback does not fall into Kwang and Swann’s (2010) categories of self-verification nor self-enhancement. Acceptance is more likely related to self-discovery strivings rather than self-verification strivings. Finn and Tonsager (1997) posited that psychological assessment is therapeutic because it addresses three basic human motives: self-verification, self-enhancement, and self-efficacy/self-discovery (i.e., motivation to learn more about oneself with the goal of future growth and self-improvement). Acceptance of novel feedback about the self may be connected to the motive of self-efficacy/self-discovery. Although this connection has not been directly evaluated, future work may benefit from integrating feedback acceptance and self-efficacy/self-discovery motives into the Kwang and Swann’s (2010) framework.

Intent to follow-through with the assessor’s recommendation to request more information and actual recommendation follow-through was not impacted by feedback condition. Only a small proportion of participants reported intent to follow-through with recommendations (11%) and a smaller proportion actually followed-through (7%), which likely limited our ability to
perceive differences between groups. Recommendation follow-through opportunity was limited to two weeks after receiving the feedback. Any participants who attempt to follow-through after the two-week deadline were not included in data analysis. In clinical populations, psychological assessment recommendations are individualized and aimed to improve the client’s functioning and psychological wellbeing. In contrast, in the current study, the recommendation was standardized and aimed to increase general psychoeducation about personality traits. Due to the increase utility of individualized recommendations, it is predicted that clinical populations are more likely to follow-through with individualized treatment recommendations compared to the current college student sample. More research is needed to assess the impact of feedback order on recommendation follow-through in clinical samples.

Need for structure also did not moderate the relationship between feedback condition and feedback acceptance. This need for structure finding is inconsistent with the Di Santoa (2020) and Di Santoa and colleagues (2020) findings that individuals with high aversion of uncertainty showed a greater preference for self-view consistent feedback relative to self-view inconsistent feedback, compared to individuals with low aversion of uncertainty. This lack of supportive findings in this study may be due to the sample size being insufficient to detect a significant moderation of the medium effect size, $\eta^2 = .05$, found in Di Santo and colleagues (2020). The use of a college student sample also limited the generalizability of need for structure finding. The average age of the current study, $M = 19.46$, $SD = 1.36$, was moderately younger than the samples of the Di Santo (2020), $M = 24.33$, $SD = 3.84$, and Di Santo and colleagues, $M = 24.21$, $SD = 3.69$. Rice and colleagues (1991) found that elderly individuals had higher rates of PNS compared to college students. They also found that within elderly individuals, high PNS participants were less likely to change their erroneous beliefs about osteoarthritis after being
presented with new information compared to low PNS participants. Future studies should include a more expansive age range to help us better understand how the relationship between PNS and response to feedback may change across the lifespan.

**Strengths**

The current study is the second known study to empirically test the strategic layering approach with real personality feedback. The study paradigm balanced controlled, experimental design elements (e.g., standardized assessment procedure and feedback format, experimentally manipulated feedback conditions) and idiographic design elements (e.g., real individualized personality test results) to isolate the impact of the strategic layering approach on response to assessment feedback. The design also incorporated some elements that aligned with the way assessments are conducted in clinical practice. For example, participants completed the study in two times points. Like in a clinical setting, participants the assessment at time 1 and then received all of the feedback during the second time point. In addition, we used a behavioral outcome (i.e., contacting the researcher to follow-up regarding the feedback recommendations) that may map onto a client following up with assessment feedback recommendations in clinical practice.

**Limitations and Future Directions**

The controlled, unrealistic nature of most of the psychological assessment procedure in this study (i.e., lack of investment from the participant, only providing written feedback) limits our ability to make inferences about the effectiveness of Finn and Tonsager’s (1997) recommendations in clinical practice. In the present study, the researcher recruited participants and compensated them for their time. In clinical psychological assessment, participants are likely more invested in the feedback outcomes due to cost of assessment and secondary gain linked to
psychological diagnoses. Client’s cost of psychological assessment includes significant financial investment, time required to complete the assessment, initiative to find a psychologist, and time spent on the waitlist to see a psychologist. APA’s (2022) COVID-19 Practitioner Impact Survey found that 60% psychologists reported having no openings for new patients. Among the 38% of psychologists who maintained a waitlist, 32% reported waitlists with 10–49 people and 10% reported waitlists of 50 or more people. Among psychologists who reported not having a waitlist, 57% cited not having the capacity to manage one or too many people requesting services to justify a waitlist. Challenges accessing care are higher for individuals seeking specialized psychological assessment services and for marginalized and rural populations. High cost of completing a psychological assessment likely impacts the perceived value of the feedback. Research indicates that outcomes from a task that requires more effort are perceived as more valuable compared to similar outcomes that required less effort (Hernandez Lallement et al., 2014; Ma et al., 2014, Norton et al., 2012). Individuals who paid the high cost of completing a psychological assessment are likely more invested in the feedback results compared to participants in the current study. Additionally, in clinical samples, access to secondary gain (e.g., specialized treatment, control medications, disability benefits) are dependent on psychological assessment results. The perceived value and actual value of assessment feedback is likely higher for real clinical populations compared to the sample in this study. Additionally, clinical assessments often include clinical interviews, behavioral observations, informant report, and client self-report. The assessment feedback delivered in this study relied solely on participant self-report. In-person assessment procedures would offer the opportunity to include clinical interviews and behavioral observations resulting in more realistic and robust assessment feedback.
Further, in the current study, feedback was provided in only written format to control for the impact of provider characteristics on response to feedback. This paradigm did not allow for the interpersonal elements of Finn and Tonsager’s (1997) approach (e.g., positive regard, respect, and openness from the clinician) that likely impacts the response toward feedback. Future studies should investigate the how feedback order impacts the perceived value of feedback in clinical samples and with verbal feedback. There were attention check questions throughout the survey however, there were no manipulations checks to ensure the participants read and understood the assessment feedback. In-person feedback sessions would offer the participant opportunities to ask questions about the feedback and opportunities for the research to assess understanding. Future online studies may implement comprehension checks by asking participants to type a description of the results in their own words.

Participants were given all the feedback then asked about their response to the feedback. Although his method allowed for a wholistic view of the impact of the strategic layering approach, we were unable to detect changes in the response between each layer of feedback (e.g., each subscale). In future studies, collecting the response to feedback after each layer of feedback would allow researchers to detect if specific layers are primarily driving these results.

Additionally, there were limitations related to the sample. The currently sample showed limited diversity in age, race/ethnicity, and gender identity ($M_{age} = 19.46$, 80% White Non-Hispanic, 74% female). Further, more participants in the self-congruent condition ($n = 106$) completed the second part of the study compared to the self-view discrepant group ($n = 78$) resulting in imbalanced conditions. Additionally, the Personality Trait Predication Scale is a novel measure that has not been previously validated. Continued replication of this study with
more diverse samples will help us better understand the utility the strategic layering approach in
the general population.

Conclusion and Clinical Implications

Overall, support was found for the hypothesis that presenting personality assessment
feedback information in a self-view congruent order compared to self-view discrepant order
resulted in significantly higher perceived value of the feedback. Feedback condition did not
significantly impact positive emotions, feedback acceptance, nor recommendation follow-
through. Need for structure also did not moderate the relationship between feedback condition
and feedback acceptance. These findings offer partial support for Finn and Tonsager’s (1997)
recommendations of strategically ordering assessment feedback in a sample of college students.
If replicated in clinical samples, findings suggest that ordering assessment feedback results to
start with self-view congruent information compared to self-view discrepant information is likely
to result in higher perceived value of feedback information. If a client values the feedback
information, then they may be more likely to follow through with treatment recommendations
and more likely to view mental health services as a valued component of their overall healthcare.
Future research should focus on a wider range of individuals in clinical settings.
References


Table 1. Demographic Variables and Differences Across Conditions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample ($n = 184$)</th>
<th>Self-View Congruent ($n = 106$)</th>
<th>Self-View Discrepant ($n = 78$)</th>
<th>Between Group Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Mean ($SD$)*</td>
<td>19.46 (1.36)</td>
<td>19.47 (1.37)</td>
<td>19.45 (1.36)</td>
<td>$t(167) = 0.88, p = .93$</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
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<td></td>
<td></td>
<td>$\chi^2 (9, N = 184) = 11.67, p = .23$</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>148 (80%)</td>
<td>81 (76%)</td>
<td>67 (86%)</td>
<td></td>
</tr>
<tr>
<td>Black or African American, non-</td>
<td>4 (2%)</td>
<td>4 (4%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino or Hispanic</td>
<td>12 (6%)</td>
<td>10 (9%)</td>
<td>2 (3%)</td>
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<tr>
<td>Asian or Asian American</td>
<td>9 (5%)</td>
<td>6 (6%)</td>
<td>3 (4%)</td>
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<td>Middle Eastern or Middle Eastern</td>
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<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>American</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1 (&lt;1%)</td>
<td>1 (&lt;1%)</td>
<td>0</td>
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</tr>
<tr>
<td>Bi- or multi-racial</td>
<td>10 (5%)</td>
<td>4 (4%)</td>
<td>6 (7%)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td>$\chi^2 (3, N = 184) = 5.07, p = .17$</td>
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<tr>
<td>Female</td>
<td>137 (74%)</td>
<td>84 (79%)</td>
<td>53 (68%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>45 (24%)</td>
<td>21 (20%)</td>
<td>24 (31%)</td>
<td></td>
</tr>
<tr>
<td>Trans-male</td>
<td>1 (&lt;1%)</td>
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<td>1 (1%)</td>
<td></td>
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<tr>
<td>Non-binary</td>
<td>1 (&lt;1%)</td>
<td>1 (&lt;1%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Previously Completed a Professional Psychological Assessment</td>
<td>45 (24%)</td>
<td>18 (16%)</td>
<td>27 (25%)</td>
<td>$\chi^2 (2, N = 184) = .13, p = .71$</td>
</tr>
<tr>
<td>Personality Traits</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Callousness</td>
<td>4.36 (3.10)</td>
<td>4.33 (3.08)</td>
<td>4.40 (3.14)</td>
<td>$t(182) = -.15, p = .88$</td>
</tr>
<tr>
<td>Deceitfulness</td>
<td>9.03 (5.00)</td>
<td>9.06 (4.62)</td>
<td>9.00 (5.51)</td>
<td>$t(182) = .08, p = .94$</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>4.70 (4.45)</td>
<td>4.70 (4.41)</td>
<td>4.70 (4.53)</td>
<td>$t(182) &lt; .00, p &gt; .99$</td>
</tr>
<tr>
<td>Hostility</td>
<td>8.95 (5.41)</td>
<td>9.20 (5.31)</td>
<td>8.62 (5.56)</td>
<td>$t(182) = .72, p = .47$</td>
</tr>
<tr>
<td>Manipulativeness</td>
<td>8.86 (6.33)</td>
<td>8.89 (6.10)</td>
<td>8.82 (6.66)</td>
<td>$t(182) = .70, p = .94$</td>
</tr>
<tr>
<td>Need for Structure</td>
<td>42.08 (5.35)</td>
<td>42.19 (4.87)</td>
<td>41.93 (5.97)</td>
<td>$t(182) = .33, p = .37$</td>
</tr>
</tbody>
</table>

Note: *15 participants did not report their age. Age was collected for 98 participants in the self-view congruent condition and 71 participants in the self-view incongruent condition.
Table 2. *Scale Descriptions.*

<table>
<thead>
<tr>
<th>Variable type</th>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Cronbach’s alpha</th>
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<td>Personality</td>
<td>Callousness</td>
<td>4.36</td>
<td>3.10</td>
<td>14.29</td>
<td>1.32</td>
<td>1.47</td>
<td>.72</td>
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<tr>
<td></td>
<td>(percentile)</td>
<td>43.34</td>
<td>18.03</td>
<td>74.31</td>
<td>1.11</td>
<td>0.51</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(absolute value difference)</td>
<td>5.08</td>
<td>5.63</td>
<td>26.38</td>
<td>1.95</td>
<td>3.59</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Deceitfulness</td>
<td>9.30</td>
<td>5.00</td>
<td>23.00</td>
<td>0.63</td>
<td>-0.25</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>(percentile)</td>
<td>60.79</td>
<td>22.58</td>
<td>74.33</td>
<td>0.08</td>
<td>-1.32</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(absolute value difference)</td>
<td>4.43</td>
<td>3.72</td>
<td>23.39</td>
<td>1.72</td>
<td>4.38</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Grandiosity</td>
<td>4.70</td>
<td>4.45</td>
<td>21.67</td>
<td>1.33</td>
<td>2.00</td>
<td>.71</td>
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<tr>
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<td>(percentile)</td>
<td>37.21</td>
<td>18.97</td>
<td>78.59</td>
<td>1.16</td>
<td>0.86</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(absolute value difference)</td>
<td>4.55</td>
<td>4.06</td>
<td>23.70</td>
<td>1.46</td>
<td>2.64</td>
<td>-</td>
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<tr>
<td></td>
<td>Hostility</td>
<td>8.95</td>
<td>5.41</td>
<td>23.00</td>
<td>0.38</td>
<td>-0.58</td>
<td>.82</td>
</tr>
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<td></td>
<td>(percentile)</td>
<td>50.09</td>
<td>24.96</td>
<td>86.64</td>
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<td>-1.12</td>
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<tr>
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<td>(absolute value difference)</td>
<td>5.70</td>
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<td>0.90</td>
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<td>6.33</td>
<td>24.00</td>
<td>0.50</td>
<td>-0.59</td>
<td>.79</td>
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<tr>
<td></td>
<td>(percentile)</td>
<td>45.29</td>
<td>28.13</td>
<td>88.96</td>
<td>0.39</td>
<td>-1.16</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(absolute value difference)</td>
<td>5.71</td>
<td>4.48</td>
<td>20.00</td>
<td>0.94</td>
<td>0.22</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: The value of feedback variable and the positive emotion variable were derived from the depth and positivity subscales of the SEQ. The feedback acceptance variable was derived from the FLS acceptance subscale.
Table 3. Correlations Between PID-5 Scores, Personality Trait/Prediction Difference Scores, Need for Structure, and Dependent Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
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</thead>
<tbody>
<tr>
<td>1. Callousness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.55**</td>
<td>.40**</td>
<td>.52**</td>
<td>.45**</td>
<td>.04</td>
</tr>
<tr>
<td>2. Deceitfulness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.43**</td>
<td>.53**</td>
<td>.70**</td>
<td>.01</td>
<td>.45**</td>
</tr>
<tr>
<td>3. Grandiosity</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.26**</td>
<td>.47**</td>
<td>.02</td>
<td>.23**</td>
<td>.14</td>
</tr>
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<td>4. Hostility</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>-.01</td>
<td>.24**</td>
<td>.13</td>
<td>.54**</td>
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<td></td>
<td></td>
<td></td>
<td>.06</td>
<td>.24**</td>
<td>.16*</td>
<td>.18*</td>
<td>.07</td>
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<td></td>
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<td>-.07</td>
<td>.11</td>
<td>-.13</td>
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<td>.03</td>
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<td>-.03</td>
<td>.17*</td>
<td>.15*</td>
<td>.07</td>
<td>-.02</td>
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<td>8. Grandiosity absolute value difference</td>
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<td></td>
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<td>-.01</td>
<td>.07</td>
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<td>9. Hostility absolute value difference</td>
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<td></td>
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<td>-.53**</td>
<td>.25**</td>
<td>.05</td>
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<td>-.01</td>
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<td>-.30**</td>
<td>-.04</td>
<td>-.13</td>
<td>-.02</td>
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<td>11. Need for structure</td>
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<td>.01</td>
<td>.03</td>
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<td></td>
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<td>-.37**</td>
<td>.17*</td>
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</tbody>
</table>

Note: *p < .05, ** p < .01
Table 4. Participant Accuracy in Predicting Their Personality Trait Scores.

<table>
<thead>
<tr>
<th>Personality Trait</th>
<th>Participants who overestimated their score</th>
<th>Participants who underestimated their score</th>
<th>Participants who accurately predicted their score</th>
<th>Difference between actual score and predicted score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>Mean</td>
</tr>
<tr>
<td>Callousness</td>
<td>132 (71%)</td>
<td>51 (27%)</td>
<td>1 (&lt;.01%)</td>
<td>-3.64</td>
</tr>
<tr>
<td>Deceitfulness</td>
<td>38 (20%)</td>
<td>143 (77%)</td>
<td>3 (2%)</td>
<td>2.87</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>76 (41%)</td>
<td>107 (58%)</td>
<td>1 (&lt;.01%)</td>
<td>.15</td>
</tr>
<tr>
<td>Hostility</td>
<td>48 (26%)</td>
<td>135 (73%)</td>
<td>1 (&lt;.01%)</td>
<td>3.22</td>
</tr>
<tr>
<td>Manipulativeness</td>
<td>42 (22%)</td>
<td>133 (72%)</td>
<td>9 (5%)</td>
<td>3.17</td>
</tr>
</tbody>
</table>
Table 5. Effect of Feedback Condition on Response to Feedback.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Self-View Congruent (n = 106)</th>
<th>Self-View Discrepant (n = 78)</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of Feedback</td>
<td>4.50 (1.08)</td>
<td>4.11 (1.03)</td>
<td>2.51</td>
<td>182</td>
<td>.01</td>
<td>.37</td>
</tr>
<tr>
<td>Positive Emotion</td>
<td>4.57 (1.06)</td>
<td>4.33 (1.01)</td>
<td>1.58</td>
<td>182</td>
<td>.12</td>
<td>.24</td>
</tr>
<tr>
<td>Feedback Acceptance</td>
<td>3.93 (1.15)</td>
<td>3.8 (1.31)</td>
<td>.43</td>
<td>182</td>
<td>.67</td>
<td>.06</td>
</tr>
</tbody>
</table>

Note: The value of feedback variable and the positive emotion variable were derived from the depth and positivity subscales of the SEQ. The feedback acceptance variable was derived from the FLS acceptance subscale.
Table 6. *Feedback Condition on Recommendation Follow-through.*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Response</th>
<th>Self-View Congruent</th>
<th>Self-View Discrepant</th>
<th>Between Group Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Intention to Follow-Through</td>
<td>Yes</td>
<td>12 (11%)</td>
<td>8 (10%)</td>
<td>$\chi^2 (2, N = 184) = .18, p = .91$</td>
</tr>
<tr>
<td></td>
<td>Maybe</td>
<td>55 (52%)</td>
<td>39 (50%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>39 (37%)</td>
<td>31 (40%)</td>
<td></td>
</tr>
<tr>
<td>Actual Follow-Through</td>
<td>Yes</td>
<td>7 (7%)</td>
<td>5 (6%)</td>
<td>$\chi^2 (1, N = 184) &lt; .00, p = .96$</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>99 (93%)</td>
<td>73 (94%)</td>
<td></td>
</tr>
</tbody>
</table>
Table 7. *Moderation Results of Need for Structure on the Relationship Between Feedback Condition and Acceptance of Feedback.*

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>$F(3,180) = .88, p = .81, R^2 = .001$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td>$B$</td>
</tr>
<tr>
<td>Feedback Condition $\rightarrow$ Acceptance (DV)</td>
<td>-2.07</td>
</tr>
<tr>
<td>Need for Structure $\rightarrow$ Acceptance (DV)</td>
<td>-0.02</td>
</tr>
<tr>
<td><strong>Interaction Effect</strong></td>
<td>$B$</td>
</tr>
<tr>
<td>Feedback Condition * Need for Structure $\rightarrow$ Acceptance (DV)</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Note: Self-view congruent condition was coded as 1 and self-view discrepant condition was coded as 0. The feedback acceptance variable was derived from the FLS acceptance subscale.
Figure 1. Participant Flow

**Time 1**
- Consent
- Demographic
- PNS
- PID-5
- Personality Trait Prediction Scale

Total participants who completed Time 1: 384
- General Psychology Subject Pool: 272
- Extra Credit Participants: 94
- Paid Participants: 18

Random Assignment

- Self-view congruent feedback condition: $n = 192$
- Self view discrepant feedback condition: $n = 192$

**Time 2**
- Total participants who completed Time 2: 201
  - General Psychology Subject Pool: 134
  - Extra Credit Participants: 53
  - Paid Participants: 14

- Self-view congruent feedback condition: $n = 112$
- Self view discrepant feedback condition: $n = 88$

- Session Evaluation Questionnaire
- Feedback in Learning Scale
- Recommendation to email experimenter

Data cleaning
- Removed for inattentive responding: $n = 5$
- Removed for extreme outliers:
  - Age: $n = 3$
  - Callousness: $n = 1$
  - Grandiosity: $n = 5$

Final Sample for Analysis: 184

Self-view congruent feedback condition: $n = 106$
Self view discrepant feedback condition: $n = 78$
## Appendix List

### Survey 1
- **Appendix A**  Demographics Measure
- **Appendix B**  Personal Need for Structure Scale
- **Appendix C**  Personality Inventory for DSM–5 Scale
- **Appendix D**  Personality Trait Prediction Scale

### Survey 2
- **Appendix E**  Personality Feedback Self-View Congruent Condition
- **Appendix F**  Personality Feedback Self-View Discrepant Condition
- **Appendix G**  Session Evaluation Questionnaire
- **Appendix H**  The Feedback in Learning Scale
- **Appendix I**  Invitation to Request More Information
- **Appendix J**  IRB Approval Letter
Appendix A
Demographic Survey

1. What is your age? ____

2. Gender
   Female/ Male/ Trans Female/ Trans Male/ Non-binary/ Other

3. What is your sexual orientation? Heterosexual / Bisexual / Homosexual / Other
   ______

4. What year are you in school?
   Not Currently Enrolled/ Freshman / Sophomore / Junior / Senior / Graduate Student / Other

5. Highest level of education attained
   Some High School/ High School or GED/ Associates or Trade Degree/ Bachelor’s Degree/ Graduate Degree

6. How would you descript your race/ethnicity (please select all that apply)?
   White (non-Hispanic) / Black or African American (non-Hispanic) / Latino or Hispanic / Asian or Asian American / Middle Eastern or Middle Eastern American / Native American or American Indian / Other ____________

7. Have you ever attended therapy?
   a. Approximately how many therapy sessions have you attended? __

8. Have you received psychological assessment (e.g., assessment to inform a psychological diagnosis or treatment plan)?
   Yes/ No
   a. Did you receive feedback about the results of the assessment?
      Yes/ No/ Unsure
   b. Was the feedback from your previous assessment…
      Easy to understand Difficult to understand
      1  2  3  4  5
      Helpful Unhelpful
      1  2  3  4  5
      Useful Not useful
      1  2  3  4  5
Appendix B
Personal Need for Structure Scale (PNSS)

INSTRUCTIONS: Read each of the following statements and decide how much you agree with each according to your beliefs and experiences.

Please respond according to the following scale.
1. Strongly disagree
2. Moderately disagree
3. Slightly disagree
4. Slightly agree
5. Moderately agree
6. Strongly agree

1. It upsets me to go into a situation without knowing what I can expect from it
2. I am not bothered by things that upset my daily routine
3. I enjoy having a clear and structured mode of life
4. I like a place for everything and everything in its place
5. I like being spontaneous
6. I find that a well-ordered life with regular hours makes my life tedious
7. I do not like situations that are uncertain
8. I hate to change my plans at the last minute
9. I hate to be with people that are unpredictable
10. I find that a consistent routine enables me to enjoy life more
11. I enjoy the exhilaration of being put in unpredictable situations
12. I become uncomfortable when the rules in a situation are not clear
Appendix C
Personality Inventory for DSM–5 Scale (MPID-5)

INSTRUCTIONS: Read each of the following statements and decide how much you agree with each according to your beliefs and experiences.

Please respond according to the following scale.
1. Very false or often false
2. Sometimes or somewhat false
3. Sometimes or somewhat true
4. Very true or often true

1. I often get into physical fights.
2. Being rude and unfriendly is just a part of who I am.
3. I really don’t care if I make other people suffer.
4. It doesn’t really bother me to see other people get hurt.
5. I don’t care about other people’s feelings.
6. You need to step on some toes to get what you want in life.
7. I would never harm another person. (R)
8. I don’t care if my actions hurt others.
9. It’s no big deal if I hurt other peoples’ feelings.
10. I don’t care about other people’s problems.
11. I sometimes hit people to remind them who’s in charge.
12. I enjoy making people in control look stupid.
13. I don’t see the point in feeling guilty about things I’ve done that have hurt other people.
14. Most of the time I don’t see the point in being friendly.
15. I make up stories about things that happened that are totally untrue.
16. I often make up things about myself to help me get what I want.
17. People don’t realize that I’m flattering them to get something.
18. I can be sneaky if it means getting what I want.
19. Sometimes you need to exaggerate to get ahead.
20. I don’t hesitate to cheat if it gets me ahead.
21. I try to tell the truth even when it’s hard. (R)
22. I use people to get what I want.
23. Lying comes easily to me.
24. I’ll stretch the truth if it’s to my advantage.
25. To be honest, I’m just more important than other people.
26. I have outstanding qualities that few others possess.
27. I’m better than almost everyone else.
28. I’ve achieved far more than almost anyone I know.
30. I often have to deal with people who are less important than me.
31. I snap at people when they do little things that irritate me.
32. I can be mean when I need to be.
33. I am easily angered.
34. I resent being told what to do, even by people in charge.
35. I have a very short temper.
36. I always make sure I get back at people who wrong me.
37. I make promises that I don’t really intend to keep.
38. I am usually pretty hostile.
39. It makes me really angry when people insult me in even a minor way.
40. I’m nasty and short to anybody who deserves it.
41. I’m good at making people do what I want them to do.
42. Sweet-talking others helps me get what I want.
43. I’m good at conning people.
44. I can certainly turn on the charm if I need to get my way.
45. It is easy for me to take advantage of others.
Appendix D
Personality Trait Prediction Scale (PTPS)

Thank you for completing the personality assessment on the previous page. Now, please predict your personality assessment results.

Below is a description of five personality traits. Please read the description carefully. Each personality trait is neither good nor bad on their own.

After reading the description, please rate on the sliding scale how much you identify with this personality trait compared to the general population.

1) Callousness
Callousness is a characteristic that considers the amount of concern for other people’s well-being and emotional states. Individuals who are low on callousness are more likely to be sympathetic to others. Individuals who are high on callousness are less concerned with or show less concern about the problems or suffering of other people.

I would describe myself as...

<table>
<thead>
<tr>
<th>Low on callousness</th>
<th>High on callousness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Using your own words, how would you describe yourself on callousness?

2) Deceitfulness
Deceitfulness refers to dishonesty with others. Individuals who are high in deceitfulness are more likely to lie or give false impressions. Individuals who are low on deceitfulness are more likely to be honest and forthcoming with information.

I would describe myself as...

<table>
<thead>
<tr>
<th>Low on deceitfulness</th>
<th>High on deceitfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Using your own words, how would you describe yourself on deceitfulness?
3) **Grandiosity**
Grandiosity refers to an individual’s view of themselves compared to their peers. Individuals who are high on grandiosity are more likely to display an exaggerated sense of one’s greatness, importance, or ability. Individuals who are low on grandiosity tend to believe they are equal to others or below average.

I would describe myself as...

<table>
<thead>
<tr>
<th>Low on grandiosity</th>
<th>High on grandiosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Using your own words, how would you describe yourself on grandiosity?
_________________________________________________________________

4) **Hostility**
Hostility refers to an individual’s approach towards others. Individuals who are high on hostility are more likely to hold ill will towards others and are more likely to behave in an aggressive manner. Individuals who are low on hostility tend to be more agreeable towards others.

I would describe myself as...

<table>
<thead>
<tr>
<th>Low on hostility</th>
<th>High on hostility</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Using your own words, how would you describe yourself on Hostility?
_________________________________________________________________

5) **Manipulativeness**
Manipulativeness refers to the desire to covertly control others. Individuals who are high on manipulativeness are more likely to try to control or influence others in an artful and often unfair or selfish way. Individuals who are low on manipulativeness tend to be more transparent with their intentions and information.

I would describe myself as...

<table>
<thead>
<tr>
<th>Low on manipulativeness</th>
<th>High on manipulativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Using your own words, how would you describe yourself on Manipulativeness?
Appendix E
Personality Feedback Self-View **Congruent** Condition

Here are the results of the personality test you took during survey one

---

1) **Manipulativeness**
Manipulativeness refers to the desire to covertly control others. Individuals who are high on manipulativeness are more likely to try to control or influence others in an artful and often unfair or selfish way. Individuals who are low on manipulativeness tend to be more transparent with their intentions and information.

During survey one, you predicted your manipulativeness score would be: 20

The personality test you completed indicated that your actual manipulativeness score is: 21
Your score falls in the 89th percentile compared to the normative population.

*Your is manipulativeness scores is 1 point higher than you expected.*

2) **Hostility**
Hostility refers to an individual’s approach towards others. Individuals who are high on hostility are more like to hold ill will towards others and are more likely to behave in an aggressive manner. Individual who are low on hostility tend to be more agreeable towards others.

During survey one, you predicted your hostility score would be: 10

The personality test you completed indicated that your actual hostility score is: 14
Your score falls in the 50th percentile compared to the normative population.

*Your is hostility scores is 4 points higher than you expected.*

3) **Grandiosity**
Grandiosity refers to an individual’s view of themselves compared to their peers. Individuals who are high on grandiosity are more likely to display an exaggerated sense of one’s greatness, importance, or ability. Individuals who are low on grandiosity tend to believe they are equal to others or below average.

During survey one, you predicted your grandiosity score would be: 25

The personality test you completed indicated that your actual grandiosity score is: 20
Your score falls in the 85th percentile compared to the normative population.

*Your is grandiosity scores is 5 points lower than you expected.*
6) Deceitfulness
Deceitfulness refers to dishonesty with others. Individuals who are high in deceitfulness are more likely to lie or give false impressions. Individuals who are low on deceitfulness are more likely to be honest and forthcoming with information.

During survey one, you predicted your deceitfulness score would be: 10

The personality test you completed indicated that your actual deceitfulness score is: 20
Your score falls in the 98th percentile compared to the normative population.

Your deceitfulness scores is 10 points higher than you expected.

5) Callousness
Callousness is a characteristic that considers the amount of concern for other people’s well-being and emotional states. Individuals who are low on callousness are more likely to be sympathetic to others. Individuals who are high on callousness are less concerned with or show less concern about the problems or suffering of other people.

During survey one, you predicted your hostility score would be: 5

The personality test you completed indicated that your actual hostility score is: 22
Your score falls in the 97th percentile compared to the normative population.

Your hostility scores is 17 points higher than you expected.
Appendix F
Personality Feedback Self-View Discrepant Condition

Here are the results of the personality test you took during survey one

1) Callousness
Callousness is a characteristic that considers the amount of concern for other people’s well-being and emotional states. Individuals who are low on callousness are more likely to be sympathetic to others. Individuals who are high on callousness are less concerned with or show less concern about the problems or suffering of other people.

During survey one, you predicted your hostility score would be: 5

The personality test you completed indicated that your actual hostility score is: 22
Your score falls in the 97th percentile compared to the normative population.

**Your hostility scores is 17 points higher than you expected.**

2) Deceitfulness
Deceitfulness refers to dishonesty with others. Individuals who are high in deceitfulness are more likely to lie or give false impressions. Individuals who are low on deceitfulness are more likely to be honest and forthcoming with information.

During survey one, you predicted your deceitfulness score would be: 10

The personality test you completed indicated that your actual deceitfulness score is: 20
Your score falls in the 98th percentile compared to the normative population.

**Your deceitfulness scores is 10 points higher than you expected.**

3) Grandiosity
Grandiosity refers to an individual’s view of themselves compared to their peers. Individuals who are high on grandiosity are more likely to display an exaggerated sense of one’s greatness, importance, or ability. Individuals who are low on grandiosity tend to believe they are equal to others or below average.

During survey one, you predicted your grandiosity score would be: 25

The personality test you completed indicated that your actual grandiosity score is: 20
Your score falls in the 85th percentile compared to the normative population.

**Your grandiosity scores is 5 points lower than you expected.**
4) Hostility
Hostility refers to an individual’s approach towards others. Individuals who are high on hostility are more likely to hold ill will towards others and are more likely to behave in an aggressive manner. Individuals who are low on hostility tend to be more agreeable towards others.

During survey one, you predicted your hostility score would be: 10

The personality test you completed indicated that your actual hostility score is: 14

Your hostility scores is **4 points higher than you expected.**

5) Manipulativeness
Manipulativeness refers to the desire to covertly control others. Individuals who are high on manipulativeness are more likely to try to control or influence others in an artful and often unfair or selfish way. Individuals who are low on manipulativeness tend to be more transparent with their intentions and information.

During survey one, you predicted your manipulativeness score would be: 20

The personality test you completed indicated that your actual manipulativeness score is: 21

Your manipulativeness scores is **1 points higher than you expected.**
Appendix G
Session Evaluation Questionnaire

Please select the appropriate number to show how you feel about this feedback session.

This feedback session was:
bad 1 2 3 4 5 6 7 good
difficult 1 2 3 4 5 6 7 easy
valuable 1 2 3 4 5 6 7 worthless
shallow 1 2 3 4 5 6 7 deep
relaxed 1 2 3 4 5 6 7 tense
unpleasant 1 2 3 4 5 6 7 pleasant
full 1 2 3 4 5 6 7 empty
weak 1 2 3 4 5 6 7 powerful
special 1 2 3 4 5 6 7 ordinary
rough 1 2 3 4 5 6 7 smooth
comfortable 1 2 3 4 5 6 7 uncomfortable

Right now I feel:
happy 1 2 3 4 5 6 7 sad
angry 1 2 3 4 5 6 7 pleased
moving 1 2 3 4 5 6 7 still
uncertain 1 2 3 4 5 6 7 definite
calm 1 2 3 4 5 6 7 excited
confident 1 2 3 4 5 6 7 afraid
friendly 1 2 3 4 5 6 7 unfriendly
slow 1 2 3 4 5 6 7 fast
energetic 1 2 3 4 5 6 7 peaceful
quiet 1 2 3 4 5 6 7 aroused
Appendix H
Modified Feedback in Learning Scale

INSTRUCTIONS: Read each of the following statements and decide how much you agree or disagree.

Please respond according to the following scale.
1. Strongly disagree
2. Moderately disagree
3. Slightly disagree
4. Slightly agree
5. Moderately agree
6. Strongly agree

1 I believe the feedback I received adequately reflects the person I am
2 I believe the feedback I received depicts me accurately
3 I recognize myself in the description the experimenter has made of me

The experimenter who calculated my personality test is outstanding in their:
4 - Ability to assess my competencies
5 - Ability to make me feel comfortable
6 - Expertise in assessing people’s competencies and potential
7 - Quality of listening
8 - Mastery of assessment tests and tools
9 - Understanding of the context for which I am assessed
10 - Capacity to gain my confidence
11 - Tact and Diplomacy
12 - Ability to rapidly size people and their personality
13 - Ability to destabilize me in a positive manner
14 - Capacity to confront my way of perceiving things

15 I have a better idea of the type of work environment in which I perform well
16 I understand better why some things or people make me react
17 I know myself better
18 I am more aware of the strengths that I can draw on from my studies
19 I am motivated to engage in developmental activities in line with the feedback I received
20 I am determined to work on the development areas identified
21 I am motivated to develop myself in the direction of the feedback I received
Appendix I
Invitation to Request More Information

Interested in learning more about your personality?

We recommend that you email the researcher to learn more about how to use personality feedback to improve your productivity and relationships.

Email: uark.personality.test@gmail.com

Feel free to copy paste this email or write your own,

Hello Alita,
I completed your study and would like more info about personality traits.

Best,
[your name]

This email to the experimenter is voluntary and will not impact your credit/compensation.
Appendix J
IRB Approval Letter

To: Ailla Mobley
From: Douglas J Adams, Justin R Chimka, Chair
IRB Expedited Review
Date: 04/27/2022
Action: Exemption Granted
Action Date: 04/27/2022
Protocol #: 2202384287
Study Title: Personality traits and self-perception

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Lindsay S Ham, Investigator
    Angie M. Wallace, Key Personnel
    Nikita Joanne Britto, Key Personnel
    Morgan Wilson, Key Personnel