ACCEPTANCE OF MMPI-2-RF FEEDBACK:
EXAMINEE PERSONALITY AND ITEM CONTENT EFFECTS

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ABSTRACT

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Various models for psychological assessment feedback have been put forward in recent decades

that have emphasized tailoring feedback based on clients' self-concepts in order to make the

feedback more meaningful to the client, to foster rapport, and even to provide a short-term

intervention. This preliminary study examines how clinicians make judgments of a client's

likelihood to accept a given piece of feedback based on results from the MMPI-2, a widely used

test of psychological functioning, using Finn's (1996) levels of self-discrepancy as the rating

system. One hundred eighty-seven feedback statements were generated rationally. Fourteen

clinicians rated each of these statements by assigning them to Level 1, 2, or 3; these statements

were each rated seven times in order to compare judgments of client acceptance across a variety

of scenarios specifying different client personality characteristics. For the first set of ratings, the

clinicians were given no information about the hypothetical client (baseline condition); for the

subsequent six rating conditions, clinicians were given a personality descriptor to use when

making their judgments of client acceptance. These six descriptors were low self-esteem,

positive impression managing, low agreeableness, high neuroticism, external locus of control,

and high introversion. Three main research questions were addressed: (1) Are clinician ratings

of self-discrepancy consensual? (2) Do client variables alter clinician ratings of self-

discrepancy? and (3) Do clinician ratings of self-discrepancy vary by the MMPI-2-RF scale from

which the inferences were derived?   Results indicated that clinician ratings were generally

consensual. The client variables of external locus of control, positive impression managing, and

low agreeableness produced large differences in self-discrepancy ratings when compared to

baseline ratings. There were also sizable differences in self-discrepancy ratings based on item

content: items dealing with psychotic symptoms, behavioral symptoms, and bodily complaints

were rated as more highly self-discrepant than were items covering other content areas. Findings

suggest a number of practical recommendations for clinicians seeking to provide examinees with

more personally-tailored and meaningful feedback on the MMPI-2-RF.

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CHAPTER I

INTRODUCTION

Psychological assessment feedback provides a vehicle by which clinicians utilize rapport to provide practical recommendations, personal insight, and even therapeutic intervention in the service of bettering the lives of clients. Whereas a great deal has been written by clinicians and researchers regarding how client personality variables, situational variables, and feedback statement content and wording variables affect feedback acceptance, very little has been written about these variables in a way that is directly relevant to routine clinical practice, including feedback statements generated from clinical assessment instruments. Additionally, though it is self-evident that some feedback statements are more readily accepted by clients, there has been no research on how clinicians determine which feedback statements should be provided to a client or which statements would be more or less likely to be accepted by a client because of presenting pathology or underlying personality variables. For example, when providing feedback on results of the MMPI-2-RF, which test inferences are most and least likely to be accepted by clients during feedback? Which test characteristics are associated with greater client acceptance? What client variables are associated with greater client acceptance?

The present study therefore examined the complex and interconnected relationships among client personality and psychopathology variables, clinical decision-making, and the resultant self-congruence or self-discrepancy of feedback statements provided to clients from personality and psychopathology measures. Looking specifically at the MMPI-2-RF, and using a model of feedback provision that bridges the humanistic assessment model for the MMPI family of instruments, this study has as its aim to fill in some of our current gaps in understanding of how best to make clinical decisions within this conceptual framework that will positively impact

our clients. In order to orient the reader to these diverse conceptual strands before the present study is presented, the following review will provide: (1) an overview of how assessment feedback has been given historically, discussing empirical findings of this research literature as well as expert opinions regarding how one should provide feedback; (2) an overview of the empirical findings of the types of client personality variables that have been shown to relate to acceptance of feedback statements; and (3) an overview of how Finn's (2007) Therapeutic Assessment model of assessment recommends feedback be given.

<div align="center">History of Psychological Assessment Feedback</div>

An extensive research literature exists on how individuals respond to various types of feedback. However, this feedback is generally limited to non-clinical (undergraduate) populations, and it is very frequently limited to false feedback, such as Barnum statements presented to participants as though they comprise the results of a personality inventory. In addition, this body of literature has grown stagnant, with the bulk of the literature having taken place in the mid-20th century. Though many models have been proposed and researched to explain why certain types of statements are more readily agreed upon by different populations, little agreement can be found in the literature as to which variables are most important for a clinician to consider when presenting (true) assessment feedback to a client. Indeed, there is a paucity of research connecting explanatory models for self-discrepancy of feedback in a manner that has utility for the clinician providing assessment feedback.

The provision of psychological testing feedback to clients as an expected component of psychological testing is a rather recent phenomenon. Indeed, it was in 2002 when the American Psychological Association stated formally that psychologists have an obligation to provide feedback to assessment clients, and in a manner that is understandable and useful to them (APA,

2002). But even then, Smith, Wiggins, and Gorske lamented in 2007 the dearth of literature

devoted to how actually to go about providing test feedback to clients.

The MMPI-2 is one of the most widely-administered clinical assessment instruments, and

it has been researched extensively, with its scores showing excellent psychometric properties in

the hundreds of validation studies that have been conducted throughout the years.   Feedback

from clinical assessment utilizing the MMPI-2, clinical interviews, and other measures and is

routinely given to assessment clients according to clinician surveys. However, little research has

been conducted regarding MMPI-2 feedback validity or its utility to the client, despite the

extensive validity research involving empirical correlates (see Graham, 2012). The research that

has been done regarding clinical utility of MMPI-2 assessment feedback has been framed in the

growing body of literature on personal growth and alleviation of distress from a self-contained

assessment, such as seen in models of "collaborative assessment" and "therapeutic assessment"

(see Fischer, 1970; Fischer 2000; Hilsenroth & Cromer, 2007; and Levak, Siegel, & Nichols,

2011 for an overview of these models).

Psychological Assessment Feedback Recommendations

Butcher (2005) offers a detailed account of how he believes a clinician should provide

assessment feedback. Regarding which information should be provided, Butcher recommends

against giving low base rate information and making rare predictions. Accordingly, he indicates

that feedback should be presented to the client in descending order of statistical likelihood. He

states that the clinician should be selective when determining which information to share,

providing information that is deemed to be the most pertinent. Butcher recognizes that the client

might have little insight into personal accountability for problems, disagreeing with some pieces

of feedback. He recommends that the clinician deal with disagreement by allowing the client

frequent opportunities to ask questions, which should reduce the amount that clients fixate on irrelevant or inconsequential points, or even incorrect interpretations, during the feedback session. Similarly, Erdberg (1979) suggests that MMPI data should be presented by first providing a description of the client's current behavior and experience of life. Then, the clinician is to provide some hypotheses to the client regarding various kinds of conditioning events that may have resulted in the client's current experience. See also Ward (2008) for an examination of significant events in the assessment feedback experience.

Regarding how individual pieces of feedback should be worded, Leenaars, Bringmann, and Balance (1978) suggest that feedback should be worded in a positive manner, expressing the presence rather than the absence of a trait. Positivity of feedback can also refer to how desirable the trait in question is. Some authors have promoted a "sandwich" approach to feedback provision, which entails provision of complimentary feedback followed by less positive feedback and then more complimentary feedback. A more contemporary perspective is to use the elicit-provide-elicit model as seen in Motivational Interviewing, in which the examiner and client take turns giving examples from the client's life and objective testing data (Gorske, 2008).

These schools of thought regarding the assessment and feedback provision process provide general guidelines for how feedback can be given to clients in what is considered by them to be the optimal or most therapeutic method. Finn provides a more comprehensive model for how he believes feedback should be given from assessments, paying close attention to the questions with which a client comes in, as well as how much the clinician believes the individual pieces of feedback will be self-discrepant for the client. (Note that Finn's model is largely based on Fischer's collaborative, individualized assessment; see Fischer, 1970 and Fischer, 2000.) Finn's Therapeutic Assessment model has been applied mostly to the MMPI-2, though he

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provides examples from Rorschach assessment and states that it could be applied to other instruments as well. According to the model, the clinician is to order the pieces of feedback from lowest to highest levels of perceived self-discrepancy. However, no research has been conducted to determine "baseline" measures for what types of feedback are likely to be self-discrepant, and for whom. In addition, no research has been conducted to determine how clinicians make these determinations of self-discrepancy, including the relative role of inference type and client variables. Finn's and other models provide little practical guidance for the clinician in how one should go about determining if an individual piece of feedback would or would not be self-discrepant to a given client. Because a reader can infer from his writings that this is considered by Finn to be one of the primary mechanisms of therapeutic growth and change for clients, it is important to understand self-discrepancy and to be able to provide practical, empirically-based guidance to clinicians. However, the model has been supplemented by other writers, including Levak, Siegel, and Nichols (2001), who presented specific text for potential feedback statements from MMPI-2 scale elevations.

<div align="center">Therapeutic Assessment</div>

Finn specifically argues that starting with some piece of positive information during the feedback session is not always the best practice, especially for those with low self-esteem, as this would contradict these clients' schemata and self-stories. This position is consistent with Ackerman, Hilsenroth, Baity, and Blagys's (2000) recommendation to begin a feedback process with interpretive statements that are congruous to the client's sense of self. Finn explains this phenomenon using the theoretical framework of self-verification theory (Swann, 1996; Swann 1997; Swann, Stein-Seroussi, & Geissler, 1992; Swann; Wenzlaff, Krull & Pelham, 1992). Thus, Finn's method for providing feedback to clients fundamentally involves a collaborative

revision of the client's self-story to integrate assessment findings. In line with his opposition to an "oracular" approach to assessment feedback, Finn prefers the term "Summary/Discussion Session." Finn discusses the empirical support (Hanson, Claiborn, & Kerr, 1997) for a more interactive, discursive approach to feedback provision as opposed to a "unilateral, assessor-driven presentation of test findings" (Finn, 2007, p. 10). Indeed, a growing research base has shown support for the therapeutic benefits of a collaborative model to assessment feedback within a therapy context, or even as a stand-alone intervention (e.g., Finn & Tonsager, 1992; Newman & Greenway, 1997).

When presenting assessment information from an MMPI-2 to the client, Finn (1996) recommends that the clinician first decide upon the five most important pieces of information to impart to the client immediately, preferably those statements that will have the most beneficial impact on the client at that time. Using information gleaned from the assessee's MMPI-2 code type and scale scores, the clinician is to make a judgment about the client's overall level of psychological awareness and overall ability to incorporate new information. Finally, MMPI-2 feedback is presented to the client in order from (clinician-perceived) highest to lowest level of client awareness, such that "level 1" information elicits a response of "I knew that" from the client; "level 2" information" is an extension of client-known information about the self that is seen as plausible to the client; and "level 3" information is likely to be rejected during feedback because it is so novel or threatening. For example, a highly socially anxious individual would most likely find a statement such as "public speaking is probably quite intimidating for you" as level 1 information, whereas "while engaged in social situations, you might find yourself paying attention to your heart rate and thus forget what others have said" might be level 2 information, and "you are a highly social person who enjoys being the life of the party" might be level 3

information. Finn cites unpublished empirical support (Schroeder, Hahn, Finn, & Swann, 1993) for this method, asserting that "clients are most able to integrate and make use of assessment information" when presented in this order (2007, p. 8).

Finn's Therapeutic Assessment is therefore based on a taxonomy of feedback based on (perceived) self-discrepancy. Finn's model is premised upon a presentation of information to the client sequentially, moving through each of the three (ostensibly) discrete levels. However, no research is cited in support of the taxonicity of these categories, or of the number of categories representing self-discrepancy of feedback. For example, clients could, in theory, view feedback as either self-discrepant or self-congruent, without any intermediate level or levels. However, it is not disputed that this model is convenient, practical, and a useful framework, regardless of latent continuity or discontinuity. Similarly, there is no information regarding how clinicians rate feedback statements for self-discrepancy in general (i.e., without contextual information about the client; a baseline rating) or based on individual differences among clients (i.e., diagnostic impressions or other clinical judgments). Despite Finn's exhortation to utilize a method of feedback ordering based on ascending client self-discrepancy, he provides little information regarding how actually to go about performing this ordering apart from clinical judgment. Finn (1996) states that the clinician should use (unspecified) information gleaned from the client's MMPI-2 code-type and scale score to determine the client's level of psychological awareness and self-discrepancy of feedback information. Finn and Kamphuis (2006) elaborate on this point by stating that the Content Scales and Harris-Lingoes scales of the MMPI-2 are useful in determining self-discrepancy of information for the client because of the higher degree of face validity on these scales. No other specific recommendations are made

regarding how clinicians should make these judgments, important client or assessment result characteristics to consider, or other recommendations on how to word feedback statements.

Despite the lack of formal taxometric data of his model of self-discrepancy of feedback, Finn's model was partially supported by Schroeder, Hahn, Finn, and Swann's (1993) study showing that mildly discrepant feedback from the Multidimensional Personality Questionnaire (MPQ) resulted in a subjectively better experience for the participants. Participant ratings of experience of positive affect, self-discovery, self-confirming experience, and overall impactfulness were higher for those participants in the mildly discrepant condition. However, Goodyear (1990) found that clients receiving interpretive feedback have moderately better outcomes ($d = .62$; four comparisons in two studies) than clients not receiving such feedback, which could indicate a non-specific benefit of feedback provision independent of the process utilized.

Factors Affecting Feedback Acceptance

Many factors have been shown to affect how assessment feedback is accepted by participants, including individual differences, perceptions of the assessment tools, perception of the examiner, and the wording of the feedback. As mentioned above, the more favorable the feedback is, the more readily it is accepted by participants generally, which some researchers have termed the "Pollyanna principle" (see Frey, 1981; Furnham & Schofield, 1986). This phenomenon has also been termed the "credibility gap" in the feedback literature, where participants who received positive feedback consistently rate that feedback as being more believable and even desirable (Jacobs, Jacobs, Feldman, & Cavior, 1973). For example, Ruzzene and Noller (1986) found that flattering feedback (whether accurate or inaccurate) was consistently rated as more accurate than negative feedback (whether accurate or inaccurate).

However, this is not always the case with depressed individuals or those who consider themselves to be neurotic or depressed (Furnham, 1989; Layne & Ally, 1980). Layne and Ally sorted undergraduate participants into neurotic and stable groups based on a neuroticism questionnaire and then had them rate the accuracy of feedback that was either "neurotic" or "stable," based on rationally-rated (by experimenters) extreme statements from the neuroticism questionnaire. Consistent with the Layne and Ally findings, individuals classified as having low self-esteem were more likely than individuals with high self-esteem to rate negative feedback as true of themselves even despite no significant differences between the low and high self-esteem groups on positive feedback self-discrepancy. Even in studies showing no difference in acceptance rates of feedback between depressed and non-depressed individuals (e.g., Vestre & Caulfield, 1986), depressed individuals have been shown to perceive feedback using neutral personality trait terms as more negative and personally meaningful (consistent with specific domains of maladjustment in their lives). Laboratory studies involving induced mood have also shown differences in processing of feedback. For example, Ingram (1984) found that individuals who had been primed by a negative mood state (told that they had "failed" a fake ability test) processed feedback more deeply when given negative feedback statements.

In addition to these mood-related variables, other personality factors have been shown to correlate with participant acceptance of feedback statements. When receiving (false) feedback, participants have been shown to be more accepting of Barnum statements as true of themselves if they have a strongly external locus of control or if they score highly on measures of social desirability (Dana & Graham, 1976; Furnham, 1989). Private self-consciousness is another personality trait examined in the context of feedback acceptance; Davies (1994) describes people who are high in private self-consciousness as being "habitually attentive to the covert, inner

aspects of the self—their thoughts, feelings, goals, intentions, and other subjective experiences" (see also Fenigstein, Scheier, and Buss, 1975). In his study, Davies found that people high in private self-consciousness consistently rated true feedback as being more accurate and false feedback as less accurate than people low in private self-consciousness; Furnham (1989) found that individuals high in introspection had this same pattern of feedback acceptance relative to individuals low in introspection. There are some conceptual similarities between private self-consciousness and mindfulness, which are described by Brown & Ryan (2003). Logically extending from the Davies findings regarding private self-consciousness, the certainty with which people hold self-views affects acceptance of feedback: Inman (2002) found this in a study involving participants varying in levels certainty of their own creative abilities. Feedback statements highly self-discrepant provided to people with very certain self-views were readily challenged, whereas people with lower self-view certainty were more ambivalent and less likely to seek additional feedback in this study. Similarly, situational uncertainty can breed increased likelihood to accept feedback (Snyder & Clair, 1977). Extraverts have also been shown to be more accepting of positive feedback and rejecting of negative feedback (Furnham, 1989).

Though outside the scope and context of the present study, perception of the test administered and the (credibility of) person administering the test have been shown to relate to acceptance of feedback (see Furnham & Schofield, 1986 and Halperin, Snyder, Shenkel, & Houston).

<center>Present Study</center>

The present study aims to connect these diverse strands of research within humanistic psychological clinical practice, cognitive psychology, and psychological assessment by examining the factors that influence (perceived) client acceptance of feedback statements.

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Although models for understanding feedback self-discrepancy have been identified (e.g., Finn's three-level model), there has been little systematic study of self-discrepancy in MMPI-2 feedback, and none with the MMPI-2-RF. By learning more about self-discrepancy in MMPI-2-RF feedback, clinicians can become more aware of biases or blind spots, thus aiding in tailoring feedback to clients in a manner more amenable to them (i.e., finding it less self-discrepant, credible, and personally meaningful).

The major goals of this research project were to ascertain whether (1) clinicians' ratings of client self-discrepancy of various pieces of feedback are reasonably consensual, (2) whether these ratings vary by client characteristics (such that they are significantly different from baseline ratings), and (3) if there are differences among ratings based on item content (MMPI-2-RF scale from which the inference derives or rationally-developed content domain membership). Finally, practical recommendations for clinicians based on the results of this study and recommendations for the use of Finn's method with the MMPI-2-RF are provided. It was hypothesized that (1) clinicians would have a moderate-to-high inter-rater agreement across the client variables, whereas inter-rater agreement would be lower for baseline (i.e., no client variable given) and use (ratings for how likely the given clinician is to use a given feedback statement in clinical practice) ratings. It was also hypothesized that (2) client variables related to behavioral problems (e.g., low agreeableness, external locus of control) would translate to higher levels of self-discrepancy ratings as compared to baseline; RC4 items (which typically describe anti-social, impulsive, and irresponsible behaviors) were also hypothesized to be rated as more self-discrepant in general. Similarly, it was hypothesized that (3) items dealing with externalizing symptoms and psychotic symptoms would be less consensual among the raters than items that deal with internalizing symptoms or general personality traits, owing to differences in

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clinician comfort giving these types of feedback and working with the types of client populations which would generate these types of feedback statements.

CHAPTER II

METHOD

Raters

Clinician raters used in this study were all mental health clinicians who have completed

or are currently completing a Ph.D. program in clinical psychology at Central Michigan

University. All raters had attained at least a Bachelor's degree at the time of the study; eight had

a Master's degree and four had a Ph.D. Fourteen raters (11 women) completed this study,

ranging in age from 24 to 34 ($M = 27.43$, $Mdn = 27.00$, $SD = 2.50$). The raters' estimated total

number of hours providing clinical care (assessment and therapy, combined) ranged from 20 to

3000 ($M = 1201.43$, $Mdn = 800.00$, $SD = 986.54$), completing an average of 63.21 feedback

sessions ($Mdn = 19.00$, $SD = 94.59$). As a whole, the raters' estimated average number of

feedback statements presented during a feedback session was 14.86 ($Mdn = 7.50$, $SD = 16.82$)

with an average feedback session length of 53.21 mins. ($Mdn = 60.00$, $SD = 22.24$); only one

rater stated that she does not do any assessments as part of routine practice currently, whereas the

other raters reported that an average of 41.07% ($Mdn = 40.00\%$, $SD = 27.75$) of their time is

spent doing assessment-related clinical work.

Additionally, raters identified their theoretical orientation in two ways: first, they rated on

a scale of 1 to 7 (least to most *like me*) how closely they associated with (1) Psychodynamic

(PD), (2) Cognitive-Behavioral (CB), and (3) Humanistic/Existential/Person-Centered practice

(HEP), and then choosing which of the three orientations most closely matched their own.

Thirteen of the raters identified as most closely associating with CB practice, with one rater

associating with HEP. For the likert-type ratings, CB had a mean rating of 6.43 ($Mdn = 7.00$, *SD*

= .85), HEP had a mean rating of 4.29 (*Mdn* = 4.50, *SD* = 1.07), and PD had a mean rating of 2.36 (*Mdn* = 2.36, *SD* = .93).

<div align="center">Materials</div>

Demographic questionnaire

Raters accessed an internet-based survey in order to complete their ratings. Each of the clinician raters first completed demographic questionnaire including questions regarding training and clinical experiences, strategies and approaches to providing feedback to clients, as well as their theoretical orientation (see above). See Appendix A for the demographics questionnaire.

Feedback Statement Item Development

A 187-item pool of statements that are likely candidates for MMPI-2-RF feedback was assembled by the author for this study from a variety of sources, including interpretive and administration manuals for the MMPI-2/-2-RF (Ben-Porath & Tellegen, 2008; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; Graham, 2006; Graham, 2012; Levak, Siegel, & Nichols, 2011). These feedback statements were written by the author to include statements that were derived from each of the MMPI-2-RF Restructured Clinical (RC) scales. The feedback statements were created by taking a given clinical inference from an RC Scale, such as "cynical," and converting it into a statement that a clinician might say to a client that would convey this meaning (i.e., free of technical jargon and in a complete sentence in the second person). In this way, "cynical" became "You feel that the world is a 'dog-eat-dog' place." Two trained raters then assigned each of the 207 items in the initial feedback statement pool to the RC Scale with which the statement is most closely associated; these two raters did not agree on 58 feedback statements, and so a third rater was used to break ties. Of these 58 feedback statements, 20 of

<div align="center">14</div>

them were not agreed upon by at least two raters, so these items were eliminated from the final

item pool, resulting in 187 total items. The RC scales had the following number of feedback

statements: RCd (demoralization; 9); RC1 (somatic complaints; 10); RC2 (low positive

emotions; 25); RC3 (cynicism; 17); RC4 (anti-social behavior ; 30); RC6 (ideas of persecution;

19); RC7 (dysfunctional negative emotions; 39); RC8 (aberrant experiences; 14); and RC9

(hypomanic activation; 24). Additionally, items were sorted into content-based domains as an

additional categorization and analytic strategy because many RC scales' elevations could

generate similar feedback statements (this was the cause of disagreement in RC scale item

sorting above). The content domains were developed rationally; sorting was completed by the

study author. The content domains had the following number of feedback statements: mood

symptoms (34); behavioral symptoms (19); psychotic symptoms (21); impairment of functioning

(16); personality traits (37); bodily symptoms (12); interpersonal functioning (23); and cognitive

symptoms (25).

External Validity of Feedback Statements

The external validity of the pool of feedback statements was also examined by examining

the feedback statements at the item level. Firstly, every client characteristic (context) had RC

Scale and content domain items that were different from baseline; further, every RC Scale and

content domain had at least half of their items differ from baseline in at least one context. Of the

187 total feedback statements, 144 of them were different from baseline ratings in at least one

context. When examining the use ratings at the item level, it was clear that the items utilized in

this study would be representative of the types of feedback statements that these clinicians would

use in their practice. All of the feedback statements had use ratings with a median use rating of 3

or greater (use ratings were rated on a scale from 1-7, with 7 being "extremely likely to use").

Additionally, all of the 187 feedback statements had use ratings of greater than or equal to 4 from at least five of the 14 raters. Mean ratings for use ranged from 3.07 (item #108—"You experience little pleasure from your body.") to 6.5 (items #18—"You have a hard time showing emotion or telling others how you feel." and #43—"You have a hard time keeping your attention on one thing for very long."). Finally, only 16 items had a mean use rating of lower than 4, and only 7 items had a median use rating of less than 4.

Procedure

Each rater identified each feedback statement as either Level 1 (*extremely likely to be accepted as true by the client about himself as worded*), Level 2 (*moderately likely to be accepted as true by the client about himself given some thought, though not seen as obviously true*), or Level 3 (*extremely unlikely to be accepted as true by the client about himself as worded*). This rating system is consistent with Finn's (2007) levels; raters were provided with brief instruction about Finn's levels to orient them to the rating system. Each of the raters had previously received graduate-level classroom instruction on Finn's method of feedback presentation during the program's required Adult Objective Personality Assessment course. Raters first rated client self-discrepancy of each inference (instructions stated that inferences *should be considered in isolation*), without any other information about the hypothetical client other that than the presently-rated item was assessed and deemed to be true of him. In addition, this stage included ratings of how likely it is (on a scale of 1 to 7) that the clinician would actually utilize the phrasing of each particular piece of feedback (with superficial modification of wording permissible). The rating scale used was 1 to 7 instead of 1 to 3 to allow for greater variability of ratings. For each inference, the raters were instructed to assume that he or she has determined that that inference is applicable to the client and that it has been deemed appropriate

to provide that piece of feedback to the client. Following this set of ratings, the clinicians rated

each of the statements again under each of the contextual conditions described below, proceeding

through each of the 187 clinical inferences for the six conditions (high introversion, etc.). See

Appendix B for item-level statistics, Appendix C for rater instructions, and Appendix D for the

inference item pool.

Contextual factors / Rating conditions

The conditions in addition to the "baseline" condition included six client variables

(contextual factors) that could affect clinicians' determination of self-discrepancy for the test

inferences. The raters were instructed to assume that the client variables were assessed

accurately via a clinical interview and/or other assessment procedures. The six client variables

included the following clinician-perceived client attributes: (1) demoralized / low self-esteem,

(2) positive impression managing, (3) interpersonally dominant / low agreeableness, (4) high

anxiety sensitivity / low distress tolerance / high neuroticism, (5) external locus of control / low

sense of agency / low psychological-mindedness / little insight into psychological problems, and

(6) high introversion. These client variables were chosen based on the consideration of variables

that have been shown to relate to feedback acceptance (see above) and rational, clinical

judgment. The research literature, which spans several decades, includes several conceptually-

similar personality variables due to synonymous constructs and the evolution of technical

terminology. In addition, some terms are more salient than others within one's clinical

vernacular; for all of these reasons, multiple terms were used for most conditions. See Appendix

C for rater instructions.

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Analyses

In order to address the three main research questions of (1) rater consensus, (2) context effects, and (3) item content effects, the following data analytic strategy was employed. Rater consensus was calculated both at the pair-wise level and the group level, in order to determine how any given pair of clinicians agreed as well as how the clinicians, as a whole, agreed. Context effects were determined using t-tests to determine if there were statistically significant differences among the contexts to determine patterns of similarity in how clinicians adjusted their ratings based on client variables, as well as to determine if a given client variable had an impact on their ratings above and beyond their baseline ratings. Item content effects were calculated similarly.

CHAPTER III

RESULTS

The results of this study will be presented in the following order: (1) agreement among

the clinician raters in their ratings of client self-discrepancy (rater consensus); (2) variability of

clinician ratings due to client variables; and (3) variability of clinician ratings based on the

content of the feedback statements (item content).

Rater Consensus

Rater consensus was calculated two ways: first, alpha coefficients were calculated with

each rater entered into a reliability analysis as an "item," and each self-discrepancy rating entered

as an observation; then, mean pair-wise (between clinicians) correlations across self-discrepancy

ratings (with Fisher's z-transformation) were calculated. By calculating rater consensus in these

two ways, we can examine consensus at the level of individual differences (mean pair-wise), as

well as consensus at the aggregate level, without as much individual difference taken into

account (alpha level). Table 1 provides a summary of these consensus values. First, rater

agreement was assessed for each client personality variable via the mean pair-wise method. For

this analysis, the 14 vectors (one for each rater) of 187 raw ratings were inter-correlated, creating

a 14x14 matrix for each of the 7 contexts. For each of the 7 contexts, the 91 correlations [n × (n

- 1) ÷ 2, or 14 × 13 ÷ 2] were averaged (utilizing Fisher's z-transformation), giving the values in

the "z-r" column for Context in Table 1. The mean pair-wise correlations for context ranged

from .12 for external locus of control to .41 for high neuroticism. The mean correlation (mean of

the seven context means) across all seven contexts was .29. Thus, any two individual raters had

moderate agreement as to the self-discrepancy ratings for a given context. Next, rater agreement

as a whole was assessed at the context level; alpha values ranged from .66 (external locus of control) to .91 (high neuroticism), with an average across contexts of .83. At the group level, rater consensus was generally quite high.

Table 1. *Overall Rater Consensus for Contexts, MMPI-2-RF Scales, and Content Domains.*

Contexts			RC Scales			Content Domains		
Contextual Factor	*z-r*	*α*	*MMPI-2-RF Scale*	*z-r*	*α*	*Content Category*	*z-r*	*α*
Baseline	0.33	0.87	RCd	0.19	0.65	Mood	0.24	0.79
Low Self-Esteem	0.39	0.90	RC1	0.24	0.78	Behavior	0.34	0.83
Positive IM	0.27	0.82	RC2	0.16	0.68	Psychotic	0.20	0.74
Low Agreeableness	0.20	0.77	RC3	0.23	0.76	Impairment	0.25	0.72
High Neuroticism	0.41	0.91	RC4	0.26	0.80	Personality	0.26	0.81
External LOC	0.12	0.66	RC6	0.26	0.80	Bodily	0.25	0.77
High Introversion	0.33	0.87	RC7	0.21	0.75	Interpersonal	0.29	0.82
			RC8	0.16	0.65	Cognitive	0.21	0.76
			RC9	0.23	0.69			
Grand Mean	0.29	0.83	Grand Mean	0.22	0.73	Grand Mean	0.26	0.78

Note. "IM" = Impression Managing; "*z-r*" = mean pair-wise correlation (*z*-transformed); "LOC" = Locus of Control."

Next, rater consensus was re-calculated at the content category level to better understand which types of statements were most and least consensual (across contexts). The alpha and mean correlation values for content category across context are presented in Table 1; these values correspond to the marginal means of the values in Tables 2-5, which break consensus down even further to the context by content category level (that is, rater consensus for any given context with any given content category). When pair-wise rater consensus was examined across contexts

for RC Scales, correlations ranged from .16 for RC8 and RC2 to .26 for RC4 and RC6; across all RC Scales, average rater consensus was .22. When pair-wise rater consensus was examined across contexts for content domain, correlations ranged from .20 for psychotic symptoms to .34 for behavior; across all content domains, average rater consensus was .26. When group-level rater consensus was examined for RC Scales, alpha values ranged from .65 for RC8 to .80 for RC4 and RC6, with a mean across RC Scales of .73. When group-level rater consensus was examined for content domains, alpha values ranged from .72 for impairment to .83 for behavior, with a mean across content domains of .78. Considering only 14 clinicians were utilized for this study, rater consensus was higher than expected.

As stated above, rater consensus was further analyzed by examining the interaction of context and content categorization (RC Scales and content domain). Again, this was done via the alpha method and the mean pair-wise correlation method as described above. Tables 2 and 3 and Tables 4 and 5 display the correlation and alpha values for RC Scale by context and for content domain by context, respectively. The same general methodology was employed for these analyses; however, they were done separately for each pairing of context and RC Scale/content domain. For example, for the mean pair-wise method of consensus calculation for RC Scales, 63 inter-correlation matrices (7 contexts × 9 RC Scales) were constructed, giving the correlation of each pairing of clinicians. So, the 9 feedback statements derived from RCd rated by Rater 1 within the Baseline Context were correlated with all of the other 13 raters' ratings of these 9 items within the Baseline Context and then averaged (utilizing Fisher's *z*-transformation). This mean correlation thus represents the average agreement of each rater with every other rater for the items derived from each RC scale with each Context. Each cell of Table 2 (and Table 4) thus represents an average of (a maximum of) 91 correlations [n × (n - 1) ÷ 2, or 14 × 13 ÷ 2].

The first cell of Table 2 thus shows a correlation of .39, meaning that average correlation of each pair of raters for statements from RCd within the Baseline context was .39, indicating a moderate level of agreement at the pair-wise level.

The mean pair-wise correlations for RC Scale by Context ranged from .01 (RC8 × external locus of control) to .42 (RC4 by positive impression managing). In our discussion of rater consensus at the RC Scale level across all contexts, we stated that RC6 had the lowest relative mean pair-wise correlation. With a more nuanced level of analysis, RC6 no longer has the lowest correlations; rather, RC8 and RC2 have the lowest relative correlations when interaction with context is considered. However, external locus of control still produced highly non-consensual ratings, regardless of item content interaction. Regardless of item content, raters were relatively consensual for baseline, low self-esteem, low agreeableness, and high introversion items, with few exceptions.

The alpha values for RC Scale by Context ranged from 0 (RC9 × external locus of control) to .89 (high introversion × RC3, RC6, and RC9). Baseline ratings and ratings within the low self-esteem context were highly consensual regardless of item content, exhibiting the smallest ranges of alpha values and the highest marginal mean alpha values. As with the results above, clinicians disagreed on self-discrepancy ratings for items within the external locus of control context, exhibiting the two lowest alpha values: zero agreement for RC9 and an alpha of .33 for RC8. Taken together, the alpha values displayed in Table 3 show that certain client characteristics render otherwise-consensual ratings of self-discrepancy based on item content considerably less consensual.

Tables 4 and 5 shows the corresponding mean pair-wise correlations and alpha values, respectively, for the interaction of item content and context when content domains were used.

Table 2. *Mean Pair-wise correlations (z-transformed) of Clinician Ratings of MMPI-2-RF Scale by Context*

RC Scale	Baseline	Low Self-Esteem	Positive IM	Low Agreeableness	High Neuroticism	External LOC	High Introversion	*M*
				Context				
RCd	0.39	0.19	0.12	0.24	0.12	0.18	0.08	0.19
RC1	0.30	0.18	0.29	0.17	0.33	0.18	0.27	0.24
RC2	0.31	0.12	0.19	0.15	0.16	0.09	0.11	0.16
RC3	0.22	0.25	0.16	0.33	0.10	0.14	0.41	0.23
RC4	0.35	0.29	0.42	0.18	0.22	0.13	0.23	0.26
RC6	0.26	0.31	0.21	0.13	0.29	0.21	0.39	0.26
RC7	0.26	0.26	0.20	0.21	0.20	0.12	0.17	0.21
RC8	0.23	0.23	0.07	0.09	0.16	0.01	0.30	0.16
RC9	0.21	0.19	0.21	0.18	0.34	0.02	0.39	0.23
Mean	0.27	0.22	0.20	0.18	0.21	0.12	0.26	

Note. "RC" = Restructured Clinical. "IM" = Impression Managing. "LOC" = Locus of Control.

Table 3. *Alpha values of Clinician Ratings of MMPI-2-RF Scales by Context*

RC Scale	Baseline	Low Self-Esteem	Positive IM	Low Agreeableness	High Neuroticism	External LOC	High Introversion	*M*
				Context				
RCd	0.88	0.76	0.46	0.79	0.43	0.7	0.51	0.65
RC1	0.84	0.74	0.84	0.72	0.84	0.69	0.78	0.78
RC2	0.84	0.63	0.76	0.69	0.7	0.61	0.55	0.68
RC3	0.75	0.81	0.68	0.86	0.64	0.71	0.89	0.76
RC4	0.88	0.84	0.88	0.76	0.76	0.65	0.82	0.80
RC6	0.82	0.85	0.77	0.66	0.83	0.79	0.89	0.80
RC7	0.84	0.82	0.77	0.77	0.7	0.64	0.71	0.75
RC8	0.81	0.79	0.55	0.55	0.71	0.33	0.83	0.65
RC9	0.78	0.76	0.76	0.75	0.88	0	0.89	0.69
Mean	0.83	0.78	0.72	0.73	0.72	0.57	0.76	

Note. "RC" = Restructured Clinical. "IM" = Impression Managing. "LOC" = Locus of Control.

Table 4. *Mean pair-wise correlations (z-transformed) of Clinician Ratings of Content Domains by Context*

								Context
Domain	Baseline	Low Self-Esteem	Positive IM	Low Agreeableness	High Neuroticism	External LOC	High Introversion	*M*
Mood	0.27	0.34	0.25	0.22	0.28	0.07	0.26	0.24
Beh	0.45	0.39	0.48	0.22	0.28	0.08	0.40	0.34
Psych.	0.17	0.22	0.07	0.21	0.24	0.16	0.31	0.20
Imp.	0.25	0.37	0.28	0.03	0.36	0.09	0.33	0.25
Pers.	0.25	0.28	0.25	0.27	0.26	0.12	0.37	0.26
Bod.	0.43	0.31	0.13	0.18	0.17	0.21	0.29	0.25
Inter.	0.32	0.39	0.32	0.21	0.34	0.10	0.35	0.29
Cog.	0.24	0.28	0.15	0.20	0.22	0.25	0.15	0.21
Mean	0.30	0.32	0.25	0.19	0.27	0.14	0.31	

Note. "IM" = Impression Managing. "LOC" = Locus of Control.

Table 5. *Alpha values of Clinician Ratings of Content Domains by Context*

				Context				
Domain	Baseline	Low Self-Esteem	Positive IM	Low Agreeableness	High Neuroticism	External LOC	High Introversion	*M*
Mood	0.83	0.87	0.80	0.79	0.83	0.57	0.82	0.79
Beh	0.92	0.90	0.91	0.79	0.82	0.54	0.91	0.83
Psych.	0.74	0.78	0.51	0.78	0.81	0.74	0.86	0.74
Imp.	0.81	0.88	0.83	0.36	0.87	0.46	0.83	0.72
Pers.	0.81	0.84	0.81	0.83	0.82	0.66	0.89	0.81
Bod.	0.90	0.83	0.71	0.73	0.66	0.78	0.78	0.77
Inter.	0.86	0.89	0.85	0.78	0.87	0.60	0.88	0.82
Cog.	0.80	0.82	0.69	0.77	0.75	0.81	0.67	0.76
Mean	0.83	0.85	0.77	0.73	0.80	0.65	0.83	

Note. "IM" = Impression Managing. "LOC" = Locus of Control.

The same general pattern was shown in the content domain × context table as was seen in the RC

Scale by context table for alphas, with external locus of control resulting in rather low

consensuality regardless of content. The mean pair-wise correlations for content domain by

context ranged from .03 (impairment × low agreeableness) to .48 (behavioral symptoms ×

positive impression managing). The same relative pattern was also seen for alphas, though

higher alphas were obtained for content domains than RC scales in many cases and values

showed less variability within contexts; values ranged from .36 (impairment × low

agreeableness) to .92 (behavioral symptoms by baseline).

Context Effects

One of the central questions of this study was whether examinee characteristics influence

clinicians' ratings of client self-discrepancy to a degree that distinguishes these ratings from their

ratings without specific client characteristics (baseline ratings). Accordingly, the pattern of zero-

order correlations among baseline and contexts was examined; tests of mean differences between

baseline and context ratings were also conducted. The vectors that were inter-correlated were

the 187 mean values of the 14 clinicians' ratings within each context, thus creating seven vectors.

Correlations for baseline ratings with context ratings ranged from .16 to .79, with low self-

esteem ($r = .79$), high neuroticism ($r = .68$), high introversion ($r = .67$), and positive impression

management ($r = .60$) producing the correlations of largest magnitude, and low agreeableness ($r

= .16$) and external locus of control ($r = .32$) producing the correlations of the smallest

magnitude. This translates to a larger context effect for all 187 feedback statements as a whole

for low agreeableness and external locus of control. Conversely, this translates to less change in

clinician-perceived self-discrepancy of MMPI-2-RF feedback as a whole for clients who have

low self-esteem, high neuroticism, high introversion, or are positive impression managing. See

Table 6 for the full inter-correlation matrix for contexts.

Table 6. *Inter-correlations for Contextual Factors*

	Context						*M*
	Base-line	Low Self-Esteem	Pos. IM	Low Agree.	High Neurot.	Ext. LOC	
Baseline	--	--	--	--	--	--	0.57
Low Self-Esteem	0.79	--	--	--	--	--	0.63
Positive IM	0.60	0.66	--	--	--	--	0.51
Low Agreeableness	0.16	-0.13	0.01	--	--	--	0.06
High Neuroticism	0.68	0.86	0.63	-0.28	--	--	0.56
External LOC	0.32	0.16	0.25	0.60	0.02	--	0.28
High Introversion	0.67	0.84	0.70	-0.08	0.82	0.24	0.61

Note. Contexts are as follows: Baseline, Low Self-Esteem, Positive Impression Managing, Low Agreeableness, High Neuroticism, External Locus of Control, and High Introversion.

The first tests of mean difference among the contexts included all 187 items in the

analysis. Again, the vectors comprised mean clinician ratings. Three contexts' means

significantly differed from the baseline mean: positive impression managing (d = 1.09), external

locus of control (d = .62), and low agreeableness (d = .54). As seen also in the magnitudes of the

correlations mentioned above, the three contexts that did not differ significantly from baseline

were low self-esteem, high introversion, and high neuroticism. The three contexts that are more

closely related to internalizing symptoms were the ones that differed least from baseline, while

the contexts that are more closely related to externalizing symptoms were the ones that differed

most from baseline, perhaps reflecting a perception that most kinds of feedback statements are

less self-discrepant for internalizing clients than for externalizing clients. Interestingly, the low

agreeableness context did not produce the largest mean difference from baseline ratings, reflecting that clinicians did not simply rate feedback statements as more self-discrepant for a client who is more disagreeable (to a larger degree than the positive impression managing and external locus of control contexts). See Table 7 for the full matrix of mean differences among the contexts; for brevity, only effect sizes (Cohen's *d*) are presented.

Table 7. *Mean differences (Cohen's* d*) among Contexts*

	Context					
	Pos. IM ($M = 2.20$)	Ext. LOC ($M = 1.99$)	Low Agree. ($M = 1.98$)	Low S-E ($M = 1.80$)	High Intro. ($M = 1.78$)	Baseline ($M = 1.77$)
External LOC ($M = 1.99$)	*0.63*	--	--	--	--	--
Low Agree. ($M = 1.98$)	*0.60*	0.04	--	--	--	--
Low S-E ($M = 1.80$)	*0.94*	*0.49*	*0.43*	--	--	--
High Intro. ($M = 1.78$)	*1.06*	*0.58*	*0.50*	0.03	--	--
Baseline ($M = 1.77$)	*1.09*	*0.62*	*0.54*	0.07	0.04	--
High Neurot. ($M = 1.68$)	*1.20*	*0.77*	*0.69*	*0.24*	*0.23*	0.19

Note. Contexts are as follows: Baseline, Low Self-Esteem, Positive Impression Managing, Low Agreeableness, High Neuroticism, External Locus of Control, and High Introversion.

Next, the mean differences between baseline and the six contexts were examined with item content taken into account. Table 8 displays these 54 mean differences (9 RC Scales $\times$ 6 contexts). These vectors included the mean clinician ratings for the items corresponding to each of the respective RC scales for each of the six contexts compared with the vector of the corresponding items' mean clinician baseline ratings. For example, of the 187 feedback statements, nine belonged to RCd. The first effect size cell is representative of the size of the

mean difference between the nine mean clinician values for the first context (low self-esteem) and the nine mean clinician values from baseline. A positive effect corresponds to a mean for that context that is higher than the mean for baseline. Within the high introversion context, none of the RC Scales' items produced a mean difference that significantly differed from baseline, with d values ranging from .16 to .41. Positive impression managing produced the largest effects, with all RC Scales significantly differing from baseline except for RC1; the largest effect exhibited was for RCd items presented to a positive impression managing client. The same general pattern of differences from baseline continued when breaking the items down into content based on RC scale membership, such that the externalizing contexts produced greater effect sizes and had more RC scales with significant differences than the internalizing contexts. Two RC scales exhibited mean differences in only one context: only in the positive impression managing context did RC3 (d = .96) and RC6 (d = 1.04) items differ from baseline ratings.

When mean differences between contexts and baseline were broken down by item content using content domain instead of RC Scales, the same general pattern emerged with comparable effect sizes, though RC Scale effect sizes were generally larger. None of the content domains showed significant differences from baseline for high introversion or low self-esteem, whereas all of the content domains showed significant effects for positive impression managing. High neuroticism only produced a significant effect for cognitive symptom (d = .90) items. Positive impression managing was the only context that produced significant effects for four domains: behavioral symptoms (d = 1.00), psychotic symptoms (d = 1.51), personality traits (d = .61), and interpersonal functioning (d = .85). See Table 9 for the full table.

At the item level, 336 out of the 1,122 total item × context (187 items × 6 contexts) combinations were significantly different from baseline ratings, which corresponds to 30%. Of

these 336 items, 154 of them are unique; 82.35% of the 187 items were significantly different from baseline in at least one context. Not surprisingly, low agreeableness produced the most number of significant effects at the item level: 106 items, or 56.68% of the 187 items, were different from baseline. Low self-esteem produced differences in only 18 items (9.63%). See Table 10 for additional item-level summary information, including breakdowns by item content categorizations.

Item Content

We have discussed item content in a few different manners within this section, but these discussions were secondary to (a) the effects of client characteristics in modifying clinician ratings of self-discrepancy from their baseline ratings and (b) rater consensus. We will now turn to the results of analyses that examined how the categories of feedback statement content inter-related. Table 11 provides some examples of feedback statements that were highly consensual within each context for each level of self-discrepancy. These items had the same level rating from a vast majority of the clinicians. These levels were previously defined in terms of how the clinician predicts that the client will respond to any given piece of feedback presented to him, with higher levels indicating a greater resistance to the feedback from the client. Within this paradigm, the clinician is to integrate clinical, interview, and personality data about the client in order to gauge the potential level of resistance.

The types of client characteristics that the clinicians were asked to consider were chosen based on the previous literature in the areas of clinical assessment and feedback acceptance, as well as states and traits that are readily assessable via the MMPI-2-RF. These were, in abbreviated form

Table 8. *Tests of Mean Difference of Each RC Scale by Context from Baseline*

RC Scale	Baseline		Low Self-Esteem			Positive IM			Low Agreeableness			High Neuroticism			External LOC			High Introversion		
	M	SD	M	SD	d	M	SD	d	M	SD	d	M	SD	d	M	SD	d	M	SD	d
RCd	1.46	0.38	1.28	0.25	**0.60**	2.24	0.21	*2.47*	2.06	0.35	*1.74*	1.29	0.18	**0.74**	1.93	0.28	*1.46*	1.54	0.18	**0.28**
RC1	1.81	0.36	1.79	0.30	**0.06**	2.04	0.35	**0.69**	2.10	0.27	**0.97**	1.49	0.33	*1.06*	2.11	0.27	*1.01*	1.77	0.26	**0.12**
RC2	1.51	0.32	*1.30*	0.20	*0.79*	1.99	0.29	*1.62*	1.98	0.28	*1.60*	1.41	0.23	**0.36**	1.88	0.22	*1.37*	1.48	0.17	**0.11**
RC3	1.81	0.30	1.84	0.37	**0.11**	2.08	0.29	*0.96*	1.77	0.45	**0.10**	1.78	0.26	**0.03**	1.81	0.32	**0.01**	1.68	0.41	**0.37**
RC4	2.08	0.45	2.35	0.39	*0.65*	2.55	0.39	*1.13*	1.76	0.33	*0.81*	2.21	0.33	**0.44**	2.00	0.28	**0.21**	2.24	0.34	**0.41**
RC6	2.03	0.39	2.09	0.39	**0.15**	2.40	0.32	*1.04*	1.86	0.30	**0.51**	1.91	0.40	**0.27**	1.83	0.37	**0.53**	1.95	0.42	**0.20**
RC7	1.62	0.34	1.56	0.32	**0.19**	2.01	0.31	*1.19*	2.19	0.32	*1.76*	1.31	0.24	*1.14*	2.13	0.23	*1.74*	1.57	0.25	**0.17**
RC8	1.80	0.35	1.85	0.35	**0.13**	2.32	0.23	*1.76*	2.27	0.22	*1.61*	1.76	0.31	**0.17**	2.20	0.19	*1.42*	1.86	0.36	**0.16**
RC9	1.74	0.34	1.92	0.35	**0.55**	2.18	0.33	*1.34*	1.88	0.35	**0.42**	1.85	0.44	**0.29**	1.95	0.16	*0.81*	1.88	0.41	**0.38**

Note. Effect sizes (Cohen's *d*) are bolded; effect sizes that are statistically significant (at the *p* < .05 level) are italicized and underlined. "IM" = Impression Managing; "LOC" = Locus of Control.

Table 9. *Tests of Mean Difference of Each Content Domain by Context from Baseline*

Domain	Baseline		Low Self-Esteem			Positive IM			Low Agreeableness			High Neuroticism			External LOC			High Introversion		
	M	SD	M	SD	d	M	SD	d	M	SD	d	M	SD	d	M	SD	d	M	SD	d
Mood	1.59	0.33	1.58	0.40	**0.02**	2.18	0.31	*1.84*	2.02	0.37	*1.25*	1.45	0.34	**0.42**	2.05	0.23	*1.60*	1.67	0.33	**0.26**
Beh.	1.84	0.52	2.15	0.50	**0.63**	2.35	0.51	*1.00*	1.91	0.37	**0.14**	2.08	0.42	**0.51**	2.04	0.25	**0.48**	2.10	0.48	**0.53**
Psych.	1.96	0.33	2.05	0.35	**0.26**	2.39	0.23	*1.51*	2.07	0.35	**0.35**	1.88	0.36	**0.23**	2.04	0.32	**0.27**	1.97	0.40	**0.04**
Imp.	1.54	0.34	1.45	0.39	**0.26**	2.04	0.38	*1.43*	1.93	0.21	*1.38*	1.49	0.40	**0.14**	1.82	0.21	*1.00*	1.54	0.27	**0.01**
Pers.	1.92	0.36	1.98	0.41	**0.18**	2.14	0.37	*0.61*	1.86	0.42	**0.15**	1.85	0.38	**0.19**	1.93	0.28	**0.04**	1.83	0.45	**0.23**
Bod.	1.51	0.42	1.51	0.34	**0.00**	1.97	0.27	*1.34*	1.97	0.27	*1.33*	1.32	0.22	**0.58**	1.99	0.30	*1.36*	1.61	0.22	**0.33**
Inter.	2.02	0.39	2.00	0.48	**0.04**	2.35	0.42	*0.85*	1.93	0.39	**0.23**	1.93	0.45	**0.20**	1.98	0.25	**0.12**	1.88	0.45	**0.33**
Cog.	1.62	0.32	1.51	0.32	**0.35**	2.10	0.27	*1.64*	2.13	0.31	*1.66*	1.36	0.27	*0.90*	2.02	0.36	*1.20*	1.62	0.21	**0.01**

Note. Effect sizes (Cohen's *d*) are bolded; effect sizes that are statistically significant (at the *p* < .05 level) are italicized and underlined. "IM" = Impression Managing; "LOC" = Locus of Control. Domains are, in order presented, Mood symptoms, Behavior symptoms, Psychotic symptoms, Impairment, Personality, Bodily symptoms, Interpersonal functioning, and cognitive symptoms.

(see Method for the full description of the characteristics): low self-esteem, positive impression

managing, low agreeableness, high neuroticism, external locus of control, and high introversion.

The types of feedback statements that were chosen were those that could be generated from a

given client's MMPI-2-RF protocol; these feedback statements were then categorized based on

the Restructured Clinical (RC) scale from which it could be derived (and with which it is most

closely associated), as well as by item content domain (feedback statements relating to mood,

behavior, psychosis, impairment, personality, bodily symptoms, interpersonal functioning, and

cognitive symptoms).

In order to illustrate these levels and how they interact with client characteristics, we will

now turn to some examples of specific feedback statements that fell within each level of

perceived hypothetical client self-discrepancy (see Table 11 for more examples). These

examples were selected based on high levels of agreement (a majority of clinicians chose the

same level). For clients who exhibited low self-esteem, clinicians rated "You feel sad and

unhappy a lot of the time, sometimes bursting into tears for no reason" as a Level 1 statement;

"You often act rashly when feeling stressed out or in pain" as a Level 2 statement; and "When

you get angry, you tend to cut people down with words or sarcasm" as a Level 3 statement. For

clients who exhibited an external locus of control, clinicians rated "You feel like a victim of

circumstance" as a Level 1 item; "You feel off-balanced and confused" as a Level 2 statement;

and "You need more attention and affection than other people" as a Level 3 statement. We will

now turn to how the various categories of item content inter-related. Additional item-level

descriptive statistics can be found in Appendices B and D. Appendix B contains frequency

counts of clinician ratings for each feedback statement in the baseline context, the baseline mean

for each item across raters, and the mean use rating across raters. Appendix B also displays the

Table 10. *Feedback Statements with Mean Differences from Baseline*

Context	No. Items	*M d*	% Different
Low Self-Esteem	18	1.09	9.63%
Positive IM	73	1.24	39.04%
Low Agreeableness	106	1.29	56.68%
High Neuroticism	42	1.2	22.46%
External LOC	63	1.17	33.69%
High Introversion	34	1.04	18.18%

RC Scale	No. Items	*M d*	No. Unique	No. in Category	% Different
RCd	18	1.38	9	9	33.33%
RC1	8	1.05	5	10	13.33%
RC2	56	1.24	22	25	37.33%
RC3	18	1.16	14	17	17.65%
RC4	56	1.25	28	30	31.11%
RC6	20	1.04	11	19	17.54%
RC7	92	1.23	37	39	39.32%
RC8	20	1.13	9	14	23.81%
RC9	48	1.17	19	24	33.33%

Content Domain	No. Items	*M d*	No. Unique	No. in Category	% Different
Mood	71	1.32	28	34	34.80%
Behavior	43	1.31	17	19	37.72%
Psychotic	20	1.06	11	21	15.87%
Impairment	27	1.19	14	16	28.13%
Personality	62	1.1	32	37	27.93%
Bodily	21	1.14	9	12	29.17%
Interpersonal	31	1.18	21	23	22.46%
Cognitive	61	1.21	22	25	40.67%

Note. The values in the "No. Items" column represent the number of feedback statements in that context or content category that were statistically different ($p < .05$) from Baseline. The values in the "*M d*" column represent the mean effect size (Cohen's *d*) for those items that were different from Baseline. For RC Scales and Content Domains, because the 187 feedback statements were rated multiple times, the number of unique feedback statements that were different is listed for each category, with the percent different being the total number of feedback statements different from baseline out of the total number of possible non-unique statements ($6 \times$ number of items in the category).

Table 11. *Feedback Statements that Typify Each Level, by Context*

Level 1 Statements	Level 2 Statements	Level 3 Statements
Baseline		
You feel "on-edge" and tense much of the time. (#36, 1.07)	You try not to want things because you know you will never get what you want. (#105, 2.07)	You blame other people for your problems. (#104, 2.79)
Low Self-Esteem		
You feel sad and unhappy a lot of the time, sometimes bursting into tears for no reason. (#51, 1.00)	You have a hard time trusting other people, not confiding in others your secrets or problems. (#100, 1.79)	You feel that you need to manipulate others in order to get your needs met. (#169, 2.93)
Positive Impression Managing		
You use a lot of mental and physical energy trying to put on a brave face when you are not feeling well. (#93, 1.21)	When you become upset by someone or something, you blame yourself for allowing yourself to be affected. (#73, 2.00)	You have had outbursts of rage or hostility from even minor provocations. (#207, 2.86)
Low Agreeableness		
You feel a strong sense of justice and a need to right wrongs. (#96, 1.29)	You feel distant or separate from others. (#48, 2.00)	You need more attention and affection than other people. (#11, 2.86)
High Neuroticism		
Your thoughts are filled with fears of failure and criticism. (#33, 1.29)	You sometimes feel like you do not belong to this world, or that you things seem not quite real. (#16, 1.93)	You don't spend a lot of energy worrying about how your words or actions affect others. (#147, 2.64)

Table 11. *Feedback Statements that Typify Each Level, by Context* cont.

Level 1 Statements	Level 2 Statements	Level 3 Statements
External Locus of Control		
You can think of other people or events that have caused all or most of the problems in your life. (#151, 1.29)	You feel off-balanced and confused. (#21, 2.07)	You are sensitive to changes in your body, and these sensations frighten you. (#80, 2.43)
High Introversion		
You find social interactions emotionally draining even if they are positive; you need some alone time to feel recharged. (#86, 1.07)	When you get the urge or craving to do something, it is extremely difficult if not impossible for you to ignore it, eventually giving in. (#81, 1.93)	When someone or something makes you angry, you feel that that person or thing is evil. (#37, 2.86)

Note. The examples given in this table are based on actual self-discrepancy ratings, wherein the majority of clinicians rated a given statement as being of a given level. Mean clinician ratings of self-discrepancy of the given statements for the given client characteristic are given in parentheses, preceded by the item number (as seen in Appendices B and D).

modal level for clinician ratings in each of the experimental contexts, if the mean for that item in that context was different from the mean for that item in the baseline context (effect sizes for these tests of mean difference are presented in Appendix D, as well as the mean effect size for the significantly different contexts by item). The item content categories to which each feedback statement belongs are presented in Appendix B, and the statements themselves are presented in Appendix D.

Table 12. *Inter-correlations for Self-Discrepancy Ratings by MMPI-2-RF Scale*

RC Scale									Mean
	RCd	RC1	RC2	RC3	RC4	RC6	RC7	RC8	
RCd									0.71
RC1	0.71	--	--	--	--	--	--	--	0.57
RC2	0.91	0.48	--	--	--	--	--	--	0.67
RC3	0.58	0.56	0.48	--	--	--	--	--	0.73
RC4	0.53	0.49	0.40	0.86	--	--	--	--	0.65
RC6	0.43	0.36	0.24	0.77	0.83	--	--	--	0.52
RC7	0.85	0.70	0.86	0.73	0.61	0.47	--	--	0.78
RC8	0.68	0.65	0.55	0.72	0.69	0.56	0.68	--	0.66
RC9	0.83	0.66	0.79	0.78	0.80	0.66	0.91	0.75	0.79

Note. Restructured Clinical (RC) Scales are as follows: RCd (demoralization), RC1 (somatic complaints), RC2 (low positive emotions), RC3 (cynicism), RC4 (antisocial behavior), RC6 (ideas of persecution), RC7 (dysfunctional negative emotions), RC8 (aberrant experiences), and RC9 (hypomanic activation).

Inter-correlations and tests of mean difference were employed to examine how the various types of item content within the feedback statements inter-related. These analyses were first conducted using the mean values of all items across all contexts within each scale/content domain for each rater, resulting in vectors of 14 mean values (9 RC Scale vectors and 8 content domain vectors), which are presented in Table 12 (inter-correlations) and Table 13 (mean differences). RC Scale inter-correlations ranged from .24 (RC2 with RC6) to .91 (RCd and RC2,

as well as RC7 and RC9). There were strong correlations among scales primarily dealing with affect: RCd, RC2, RC7, and RC9. The feedback statements derived from RC6 (mean $r = .52$) and RC1 (mean $r = .57$) were least related to the feedback statements from the other RC Scales, whereas RC9 (mean $r = .79$) and RC7 (mean $r = .78$) were most related to the feedback statements from the other RC Scales. As for the inter-relatedness of the RC Scales as a whole, the mean pair-wise correlation was .69. The effect sizes (Cohen's d) are presented for the pair-wise mean differences of the RC Scales (t and p values are not presented for brevity) in Table 13. Effect sizes ranged from .05 (RC6 with RC8) to 2.70 (RCd with RC4). Three clusters of similar scales were present, such that every pair-wise combination within them was not significantly different: RCd, RC2, and RC7; RC1, RC6, RC8, and RC9; and RC1, RC3, RC7, and RC9. RC4 was different from every other scale (range of d values = .83 for RC8 to 2.70 for RCd), however.

These inter-correlations and tests of mean difference were also calculated for content domains, which are presented in Table 14 (inter-correlations) and Table 15 (mean differences). Content domain inter-correlations ranged from .30 (bodily symptoms with interpersonal functioning) to .95 (mood symptoms with cognitive symptoms). The interpersonal domain was the least like the other domains (mean $r = .53$), whereas the other seven domains had mean pair-wise correlations ranging from .73 (bodily symptoms) to .81 (mood symptoms). As for the inter-relatedness of the content domains as a whole, the mean pair-wise correlation was .74, which is comparable to the RC Scales (.69). Analyzing feedback statement content in this manner, we get an even clearer picture that clinicians viewed feedback relating to relationships and interpersonal functioning as more different from feedback relating to other types of symptoms than other types of symptoms are from each other, in terms of perceived client self-discrepancy. The effect sizes (Cohen's d) are presented for the pair-wise mean differences of the content

Table 13. *Effect sizes (Cohen's d) for mean differences among RC Scale Items, across Contexts*

	RC Scale							
	RC4 (*M* = 2.18)	RC6 (*M* = 2.01)	RC8 (*M* = 2.01)	RC9 (*M* = 1.91)	RC1 (*M* = 1.87)	RC3 (*M* = 1.83)	RC7 (*M* = 1.77)	RCd (*M* = 1.68)
RC6 (*M* = 2.01)	*1.03*	--	--	--	--	--	--	--
RC8 (*M* = 2.01)	*0.83*	0.05	--	--	--	--	--	--
RC9 (*M* = 1.91)	*1.34*	0.56	0.41	--	--	--	--	--
RC1 (*M* = 1.87)	*1.12*	0.56	0.47	0.16	--	--	--	--
RC3 (*M* = 1.83)	*2.24*	*1.41*	*0.93*	0.48	0.16	--	--	--
RC7 (*M* = 1.77)	*2.38*	*1.59*	*1.15*	0.74	0.74	0.39	--	--
RCd (*M* = 1.68)	*2.70*	*1.96*	*1.52*	*1.14*	*1.14*	*0.90*	0.49	--
RC2 (*M* = 1.65)	*2.47*	*1.81*	*1.52*	*1.17*	*1.17*	*0.92*	0.58	0.14

Note. Effect sizes that are statistically significant (at the $p < .05$ level) are italicized and underlined.

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domains (again, *t* and *p* values are omitted for brevity) in Table 15. Effect sizes ranged from .03 (impairment with bodily symptoms) to 1.87 (behavior with impairment). As with the RC Scales, the analysis of pair-wise mean differences for content domain revealed clusters of domains that were not significantly different from each other: behavior, psychotic symptoms, personality, and interpersonal functioning, as well as mood symptoms, cognitive symptoms, impairment, and bodily symptoms. When analyzed this way, it becomes clear that feedback statements involving the content of the former group of client variables are viewed as less likely to be self-discrepant than feedback statements involving the latter group of client variables.

An examination of clinicians' ratings of likelihood to use the content categories' feedback statements is another manner in which we can investigate how clinicians approached the task of assigning self-discrepancy ratings, an external validity check on the pool of potential feedback statements created for this research project, and further evidence for how categories of feedback "hang together." Firstly, the means for use ratings for all 8 content domains and 9 RC Scales were above 4.60 (on a scale of 1-7, with 7 being "extremely likely to use"), providing some evidence for the external validity of the item pool utilized. For content domain, mean ratings ranged from 4.73 (psychotic symptoms) to 5.60 (impairment symptoms); for RC Scales, mean ratings ranged from 4.60 (RC4) to 5.66 (RCd). RC Scale effect sizes ranged from .03 (RC1 with RC8) to 1.77 (RC2 with RC4). The same general pattern emerged from the RC Scale effect sizes (seen in Table 16) as was seen in Table 13, such that, generally, scales RCd, RC2, RC7, and RC9 were similar, as were scales RC1, RC3, RC6, RC8, and RC9. Table 17 shows the effect sizes for mean differences in use ratings by content domain; effect sizes ranged from .03 (mood with cognitive symptoms, as well as interpersonal functioning with personality). Here again we have rather clear clusters of similar ratings, such that behavior symptoms, impairment, bodily

Table 14. *Inter-correlations for Self-Discrepancy Ratings by Content Domains*

	Content Domain							Mean
	Mood	Behavior	Psychotic	Impairment	Personality	Bodily	Interpersonal	
Mood	--	--	--	--	--	--	--	0.81
Behavior	0.75	--	--	--	--	--	--	0.78
Psychotic	0.67	0.85	--	--	--	--	--	0.71
Impairment	0.87	0.77	0.69	--	--	--	--	0.76
Personality	0.81	0.87	0.71	0.70	--	--	--	0.77
Bodily	0.84	0.78	0.65	0.84	0.73	--	--	0.73
Interpersonal	0.43	0.61	0.65	0.50	0.66	0.30	--	0.53
Cognitive	0.95	0.78	0.70	0.81	0.84	0.75	0.49	0.79

Table 15. *Mean differences (Cohen's d) for Content Domains, across Contexts*

	Content Domain						
	Behavior (*M* = 2.07)	Psychotic (*M* = 2.05)	Interpersonal (*M* = 2.01)	Personality (*M* = 1.93)	Mood (*M* = 1.79)	Cognitive (*M* = 1.77)	Bodily (*M* = 1.70)
Psychotic (*M* = 2.05)	0.08	--	--	--	--	--	--
Interpersonal (*M* = 2.01)	0.30	0.23	--	--	--	--	--
Personality (*M* = 1.93)	0.78	0.71	0.50	--	--	--	--
Mood (*M* = 1.79)	*1.43*	*1.39*	*1.22*	*0.82*	--	--	--
Cognitive (*M* = 1.77)	*1.68*	*1.64*	*1.48*	*1.06*	0.13	--	--
Bodily (*M* = 1.70)	*1.51*	*1.47*	*1.33*	*1.03*	0.39	0.31	--
Impairment (*M* = 1.69)	*1.87*	*1.84*	*1.68*	*1.32*	0.50	0.42	0.03

Note. Effect sizes that are statistically significant (at the $p < .05$ level) are italicized and underlined.

Table 16. *Effect sizes (Cohen's* d*) for Mean Differences among Use Ratings by RC Scale*

	RC Scale							
	RCd ($M = 5.66$)	RC2 ($M = 5.62$)	RC7 ($M = 5.47$)	RC9 ($M = 5.22$)	RC3 ($M = 5.13$)	RC1 ($M = 4.94$)	RC8 ($M = 4.91$)	RC6 ($M = 4.74$)
RC2 ($M = 5.62$)	0.06	--	--	--	--	--	--	--
RC7 ($M = 5.47$)	0.31	0.27	--	--	--	--	--	--
RC9 ($M = 5.22$)	0.70	0.70	0.50	--	--	--	--	--
RC3 ($M = 5.13$)	*0.81*	*0.81*	0.64	0.17	--	--	--	--
RC1 ($M = 4.94$)	*1.01*	*1.02*	*0.87*	0.44	0.28	--	--	--
RC8 ($M = 4.91$)	*1.05*	*1.06*	*0.91*	0.49	0.32	0.03	--	--
RC6 ($M = 4.74$)	*1.33*	*1.36*	*1.23*	0.78	0.59	0.27	0.24	--
RC4 ($M = 4.60$)	*1.67*	*1.77*	*1.70*	*1.14*	*0.90*	0.51	0.48	0.23

Note. Effect sizes that are statistically significant (at the $p < .05$ level) are italicized and underlined.

Table 17. *Effect sizes (Cohen's d) for Mean Differences among Use Ratings by Content Domain*

	Content Domain						
	Impairment ($M = 5.60$)	Bodily ($M = 5.46$)	Mood ($M = 5.43$)	Cognitive ($M = 5.42$)	Behavior ($M = 5.01$)	Interpersonal ($M = 4.90$)	Personality ($M = 4.89$)
Bodily ($M = 5.46$)	0.21	--	--	--	--	--	--
Mood ($M = 5.43$)	0.27	0.06	--	--	--	--	--
Cognitive ($M = 5.42$)	0.29	0.08	0.03	--	--	--	--
Behavior ($M = 5.01$)	*0.90*	0.73	0.69	0.68	--	--	--
Interpersonal ($M = 4.90$)	*1.14*	*0.99*	*0.95*	*0.93*	0.18	--	--
Personality ($M = 4.89$)	*1.19*	*1.04*	*1.01*	*0.99*	0.21	0.03	--
Psychotic ($M = 4.73$)	*1.21*	*1.07*	*1.04*	*1.03*	0.40	0.26	0.24

Note. Effect sizes that are statistically significant (at the $p < .05$ level) are italicized and underlined.

symptoms, mood symptoms, and cognitive symptoms were similar to each other, and such that behavior, personality, psychotic symptoms, and interpersonal functioning were similar to each other. We see the same gradient of likelihood to use as we saw with self-discrepancy ratings.

Supplementary Analyses

In addition to these analyses, hierarchical regressions were conducted to verify that item content was predictive of each of the six contextual factors above and beyond the baseline and use ratings. In Model 1, baseline and use ratings were entered in a block, with dummy-coded RC scale membership entered in a block into the second model. The same analysis was run with dummy-coded item content domain entered into the second block. All 24 (6 contexts $\times$ 2 models per context $\times$ 2 operationalizations of item content) models were significant; all of the second models predicted a significant amount of variance in contextualized ratings above and beyond baseline and use ratings. Though these analyses will not be discussed in detail, the results are included in Appendix E. These analyses were conducted to establish that clinicians' ratings for feedback self-discrepancy within contexts were not explainable solely by their baseline ratings and their use ratings, which can be thought of as their own personal reactions to the item content.

CHAPTER IV

DISCUSSION

Summary of Findings

A brief review of the major findings is presented here in reference to the *a priori* study

hypotheses; following this summary, discussion the implications of the research findings will be

presented with regard to the three main research questions, as well as a discussion of

implications for external validity, limitations of the study methodology, and future directions for

this line of research. Several hypotheses were advanced in this study. Firstly, the hypothesis

that raters would be moderately to highly consensual across the contextual factors was supported.

Additionally, the hypothesis that psychotic symptoms would be less consensual among the raters

was supported, though the hypothesis that externalizing symptoms would be less consensual

among the raters was not supported. The hypothesis that contexts involving behavioral problems

(external locus of control and low agreeableness) would be more self-discrepant was supported,

with these two contexts having the highest mean ratings of self-discrepancy. Similarly, the

hypothesis that RC4 items would be rated as more self-discrepant was also supported, again

having the highest mean level of self-discrepancy across contexts.

Implications of Research Findings

Rater Consensus

The results of the analyses of rater consensus, both at the pair-wise and group levels, shed

light upon where additional practical guidance could be of the most benefit to clinicians seeking

additional information about how best to go about providing psychological assessment feedback

based on the type of item content, client characteristics, and the interaction of these two domains.

Specifically, the item content areas that show the lowest levels of clinician consensus are those that experienced clinicians could provide information from their clinical experience as to how best to assess client self-discrepancy based on the clinical information available. For example, there was a near-zero (.01) mean pair-wise correlation and a rather low alpha (.33) for RC8 (aberrant experiences) items presented to a client with an external locus of control. This is a case of feedback statements that are considered to be relatively more self-discrepant than other types of feedback statements, as well as a client characteristic that also produced relatively higher self-discrepancy ratings. Because there were such vastly different conceptualizations of how this type of client would react to this feedback, it is likely that a clinician who has worked with many clients who have exhibited symptoms on the psychotic spectrum could provide insight to less-experienced clinicians regarding feedback acceptance. This is especially likely to be useful information given that the raters were quite consensual for the baseline ratings, but the agreement dropped drastically with that characteristic, and to a degree not seen in any of the other client characteristics. Because of the low base rate of psychotic spectrum problems, a clinician who has not had a great deal of experience with this population and suddenly needs to give this type of feedback to a client could benefit from practical guidance.

Conversely, clinicians similarly conceptualized client self-discrepancy for clients with low self-esteem and introversion especially. The relatively high alpha values seen for these contexts indicate that, across most item content areas, clinicians were in agreement and probably found that these were easier decisions to make in terms of assignation of self-discrepancy ratings. However, even within these largely consensual contexts, there were some areas of much lower consensus that could be potential, more specific targets for additional instruction in the literature about how best to conceptualize the self-discrepancy of these types of statements for

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these types of clients. Notably, RC9 statements presented to a person with an external locus of control, as well as RCd and RC2 statements presented to someone high in introversion. These two examples are especially interesting considering the strong conceptual links between the content from these scales and the client personality traits. Here, it would be important in future studies to tease apart individual differences in perceived self-discrepancy from knowledge of psychopathology and personality, as well as from comfort giving that type of feedback and comfort working with clients with that characteristic.

Additionally, rater agreement was indicative of rather high levels of consensuality given the nature of the task of assigning perceived hypothetical client self-discrepancy ratings while given only one piece of information about this client: no demographic data, referral reason or source, assessment data, or other information was provided about the client. However, rater agreement was not so high that we do not see the effect of individual differences among clinicians, which could be attributable either to random error or to differences in clinically-relevant domains (training, experience with certain types of clients, etc.). Due to the nature of clinical work, we would not expect that any two clinicians would agree highly about every clinical decision (as seen in the mean pair-wise correlations); however, general trends with aggregated clinician data should converge more highly (as seen in the alpha values). In addition to these implications, the level of agreement seen throughout the study at the aggregate level, with multiple client variables, provides some provisional support to the general level framework that Finn advanced.

Context effects

The results of analyses for the effects of context on the ratings of self-discrepancy shed light on the conceptual framework from which the clinicians operated; that is, the inter-

relatedness of the client characteristics was examined, as well as if a given client characteristic is sufficient to alter the clinicians' baseline view of the self-discrepancy of a given feedback statement. It was clear that clinicians utilized a conceptualization process that considered low self-esteem, high neuroticism, high introversion, and positive impression managing as being similar, whereas external locus of control and low agreeableness were seen as similar in terms of effects on a client's self-discrepancy. Low agreeableness was the most different from the other contexts, with a near-zero average correlation (mean $r = .06$). This could be due in part to lower levels of inter-rater reliability in these ratings, but it is also likely that this client variable is seen as somewhat different from the other client variables, which is not surprising considering one of the facets of the variable as described to the clinicians (in addition to interpersonally dominant, etc.) deals directly with a tendency to not agree with people.

It is important to note that clinicians did not produce mean values for the low self-esteem, high neuroticism, and high introversion contexts that were statistically significantly different from the baseline mean value. Thus, on the whole, the clinicians saw no difference in how they would perceive client self-discrepancy for a client with these characteristics than for a client about whom they knew nothing. This could be an area where some nuanced instruction could be provided by experts in the assessment field if they do not believe that this should be the case. For example, because Finn speaks of the client's ability to accept feedback or incorporate new information (due to confusion, intelligence, and acute distress), it might be important to emphasize more heavily the nuanced role that demoralization can play in one's ability to accept feedback, even if the feedback is about mood symptoms or acute distress. Conversely, positive impression managing mean ratings differed from baseline regardless of the type of content; because this is both something that is readily assessed on the MMPI-2-RF and because it had

such a striking effect, this area could also benefit from additional instruction as to how to conceptualize positive impression managing motivation with the interaction of feedback content of different types.

Item Content

The results of the analyses on the item content shed light on the inter-relatedness of the content areas of the feedback statements, as well as the content areas that had a substantial impact on rater agreement. Clinician raters similarly conceptualized across contexts the feedback statements dealing with behavior, impairment, bodily symptoms, mood symptoms, and cognitive symptoms as similar, as well as behavior, personality, psychotic symptoms, and interpersonal functioning as similar. It is unclear why these two clusters emerged, especially as this is different from the clusters seen when analyzed using RC Scale membership: the first cluster included RCd, RC2, RC7, and RC9, whereas the second included RC1, RC3, RC6, RC8, and RC9. However, it was a bit clearer as to the content areas that differed from each other across contexts. For example, we would not necessarily expect that clinicians would similarly conceptualize self-discrepancy for RC6 feedback statements with RCd, RC2, or RC7 feedback statements.

There were 33 feedback statements that did not differ from baseline in any context; these are perhaps the most interesting items because they were unaffected by any of the client characteristics. Most of these items had a relatively high mean rating for baseline self-discrepancy, and most of them dealt with symptoms consistent with severe psychopathology and/or conditions associated with low insight, such as interpersonal suspiciousness and paranoia, hallucinations, mania or extreme impulse-control problems, and personality or behavioral descriptions consistent with chronic pain and psychosomatic reactions. These items are perhaps

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representative of feedback statements that would not generally be given in a typical assessment feedback session or early session in psychotherapy, but would require a great amount of rapport and therapeutic trust built up over time with a client.

External Validity

To help verify whether the results of this study could be extrapolated, generalized, and/or applied to clinical practice, a variety of steps were taken. First, the methodology employed had a "control" condition with the baseline ratings to allow for analysis of the effects of the client characteristics on self-discrepancy ratings. In addition to the control condition, likelihood to use ratings were assessed for each item to help ensure that the types of feedback statements included in the analyses were representative of what clinicians might actually use in routine clinically practice (or, at least that the statements were *not* ones that they would be extremely unlikely to use in routine clinical practice). The methodology also allowed for the examination of whether the ratings in the ratings in the "experimental" conditions were not solely explainable by the clinicians' feelings about the items: having the baseline and use ratings allowed for analyses partialling these ratings out of the contextualized ratings. This gives additional information regarding the effect of the client characteristics on clinicians' ratings while also parsing how the clinician feels about the feedback statements from how they perceive a hypothetical client with a given characteristic would accept or reject as true about himself a given piece of feedback. The results of the hierarchical regressions (see Appendix E) confirmed that item content was explanatory of a significant amount of the variance in the contextualized ratings above and beyond the variance explained in those ratings by the baseline and use ratings.

In addition to the external validity examined above, the findings of this study can be used to provide some initial validation of the paradigm put forth by Finn in terms of its practical use.

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No data had been presented on whether clinicians could assign feedback statements into each of these levels across a wide swath of item content and client characteristics; it could have been that clinicians, for many types of feedback and clients, would have a very skewed distribution of ratings. This was not borne out by the data in this study: raters utilized all three levels, over 99% of the 1,309 items (187 items $\times$ 7 contexts) were univariate normal (without repeated items across contexts). Additionally, there were mean differences of significant magnitude in both the positive and negative direction, indicative of client characteristics that would facilitate acceptance and those that would impede acceptance of various statements. However, the aim of this study was not to examine the nature of this distribution in terms of continuity or discontinuity (that is, taxonicity), but rather to see if the ratings from multiple clinicians would produce normal distributions, indicative of individual differences in the clinicians, as well as the importance of considering the client characteristics (and not just the item content) when determining perceived self-discrepancy.

Study Limitations

There are several limitations to this preliminary study of how clinicians perceive client self-discrepancy. Firstly, there was no client data used in this study: no clients took the MMPI-2-RF and had their ratings of personal self-discrepancy compared with what clinicians rated the client's self-discrepancy to be based on the MMPI-2-RF results (or other data). Additionally, the sample size of clinicians was rather limited in size and range of clinicians in the field; that is, only 14 clinicians participated in the study, and they were all graduate students. Further, the graduate student clinician raters were also quite homogeneous in theoretical orientation (Cognitive-Behavioral); one could postulate that different results could be obtained from a sample of clinicians from a wider spectrum of theoretical orientations, supervised by a wider

spectrum of supervisors, and trained differently in assessment and feedback provision (e.g., from an explicitly humanistic paradigm like the one Finn espouses).

From a content validity perspective, there is the limitation that there is no possible way to use the entire "universe" of feedback statements that could be derived from an assessment (even if limited to just one instrument), including the infinite ways that a piece of feedback can be worded. Whereas wording the feedback statements in the format of "You are [characteristic]" rendered the statements' wording specific, concrete, and realistic, this could have introduced some error into the data due to clinicians initially thinking of themselves when choosing their ratings; however, at the same time, this might have facilitated a greater empathic state while rating. Whereas the feedback statements were adapted from popular sources of interpretive information from the MMPI-2-RF, and were written in a manner to reduce technical jargon, no explicit attempts were made to control for or statistically analyze the positive wording (both presence vs. absence of the characteristic and flattering vs. stigma-laden) of the feedback statements. Similarly, no attempts were made to control for or statistically analyze the base rates of the characteristics described in the feedback statements given. Similarly, it is not known how the clinicians utilized the "Level 2" rating; it could have been a "wastebasket" rating in cases where the clinician did not know how the client might perceive that piece of feedback, as well as being used in the cases of the clinician believing that that piece of feedback would not really ever be applicable to that client.

In a real assessment situation, a limited number of feedback statements would be provided (if at all), which generate context effects upon each other; that is, the ordering, valence, and (apparent) validity of each feedback statement affect how a feedback recipient perceives the veracity of each statement. A clinician can consider these variables when providing the

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feedback, whereas in this study, the feedback statements were considered in isolation, perhaps representing a more "upper-bound" estimate of perceived hypothetical client self-discrepancy because the discrepancy could be attenuated by rapport and facilitated trust based on previous statements, etc. Finally, for the regression analyses predicting ratings from various demographic and condition variables, the 1-3 rating scale based on Finn's level was treated as continuous, although it could be argued that it is either ordinal or categorical.

Future Directions

In future studies, there are several directions that could improve upon the methodology and expound upon the results of this study, clarifying its findings. First, a larger sample of clinicians with a greater range of clinical experience would have been preferable. Next, it would be useful to develop a pool of feedback statements that were derived from and refined by focus groups of clinicians. It would also be important to have a validity component as described above. Similarly, it would be a useful component of validity ratings to have a focus group of clinicians rate at which elevation of which scale(s) they would consider using a given feedback statement. Validity from a different perspective could be examined by using a rating scale of feedback items that has a wider range (1-7, perhaps), allowing for a more truly continuous scale; this would permit validation of the existence of latent levels in the manner in which Finn describes. Also, a rating scale with a wider range would probably be necessary if a formal taxometric analysis were to be undertaken to assess latent taxonic structure of self-discrepancy ratings.

In order to improve upon the external validity of this study, a methodology that incorporates relative ratings would be useful. That is, feedback statements could be sorted, ranked, etc., such as with the q-sort method. This could potentially be very useful in examining

the inherent stigma of a set of given feedback statements or feedback ratings for specific clinical presentations that have more information than just a single characteristic. A logical extension of this study would be to utilize the q-sort methodology with a set of feedback statements that could be given from an assessment instrument, present clinicians with assessment data from that instrument, and then have raters q-sort those statements, comparing across conditions. Another such logical extension of this study would be a study that utilizes college students who take a personality test or broadband measure and also rates the degree to which he would agree with feedback statements that could be derived from that measure, perhaps taking into account the use rating results of this study.

APPENDICES

APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

Sex: Male   Female

Age: _____

Highest degree attained: Bachelor's Master's Ph.D./Psy.D

Approximate number of direct client (face-to-face) clinical hours (combined): _____

Approximate number of assessment feedback sessions completed: _____

Of assessment and therapy, percentage spent on assessment: _____

Comfort level giving "bad" news to clients from

       1 (very uncomfortable) to 7 (very comfortable): _____

Approximate average number of feedback statements given during a feedback session: _____

Approximate length of a feedback session (in minutes): _____

Association with following theoretical orientations from 1 to 7:

       Psychodynamic

       Cognitive Behavioral

       Humanistic/Existential/Person-Centered

Closest Theoretical Orientation:

       Psychodynamic   Cognitive-Behavioral   Humanistic/Existential/Person-Centered

APPENDIX B

SELECTED ITEM-LEVEL DESCRIPTIVE STATISTICS

Item	BL Level Frequency			Means		Modal Level by Context if Different from BL						Content Categorization	
#	L1	L2	L3	BL	Use	C1	C2	C3	C4	C5	C6	RC Scale	Content
1	2	8	4	2.14	3.64							9	1
2	11	3	0	1.21	5.57		2	2		2		7	6
3	4	9	1	1.79	3.57		3					3	5
4	2	10	2	2.00	4.64						2	6	7
5	4	8	2	1.86	5.00		3					4	5
6	5	8	1	1.71	4.86		3				3	4	2
7	0	7	7	2.50	4.07	3	3	1				4	5
8	9	5	0	1.36	5.50	2		1	3		1	4	2
9	3	10	1	1.86	5.43							2	5
10	0	4	10	2.71	3.43					3	2	6	8
11	2	9	3	2.07	4.86			3				3	5
12	11	3	0	1.21	6.29					2		7	2
13	12	2	0	1.14	6.43		2	3		1		7	8
14	1	7	6	2.36	5.21							8	3
15	2	3	9	2.50	4.14							6	3
16	2	11	1	1.93	4.29		3					8	3
17	2	10	2	2.00	5.29		3					6	7
18	8	6	0	1.43	6.50				2			3	5
19	3	10	1	1.86	5.36		2	1				9	4
20	10	4	0	1.29	6.21		2	2	1	3		7	6
21	8	4	2	1.57	4.86		2	2		2		8	3
22	6	8	0	1.57	5.64		3					7	1
23	10	4	0	1.29	6.00		2	3		2		7	1
24	4	6	4	2.00	4.64		3	1				4	4
26	6	8	0	1.57	5.71							6	8
27	3	9	2	1.93	4.57		3	1				3	5
29	11	3	0	1.21	6.21		3	3		2		7	1
30	2	11	1	1.93	5.50	1		3	1		1	2	8
31	4	7	3	1.93	4.93		3					d	5
33	8	5	1	1.50	5.79		3	2		2		7	8
34	5	9	0	1.64	5.36		3			3		4	2
35	9	5	0	1.36	6.00		2	2		3		7	8
36	13	1	0	1.07	6.29		1			1	1	d	1

Item	BL Level Frequency			Means		Modal Level by Context if Different from BL						Content Categorization	
#	L1	L2	L3	BL	Use	C1	C2	C3	C4	C5	C6	RC Scale	Content
37	0	7	7	2.50	3.64			2			3	6	3
38	6	7	1	1.64	5.57							3	7
39	8	6	0	1.43	5.36		3	3		2		8	8
40	4	9	1	1.79	4.79							3	8
41	6	6	2	1.71	5.79			3				7	2
42	6	7	1	1.64	4.79		2					9	1
43	12	2	0	1.14	6.50		2	2		2		9	2
46	3	8	3	2.00	4.86	1						2	4
47	4	6	4	2.00	4.57			3				d	8
48	8	5	1	1.50	5.71		3	2				8	3
49	4	10	0	1.71	5.36			2	1		1	7	5
50	7	6	1	1.57	5.86							6	3
51	12	2	0	1.14	5.86		3	3		2		d	1
52	7	6	1	1.57	6.14	1		2	1			2	1
53	3	8	3	2.00	5.00			1				9	5
54	0	5	9	2.64	4.00						2	8	3
55	2	11	1	1.93	5.14			3	1	3		7	8
56	2	11	1	1.93	5.00			3	1	3		7	8
57	3	8	3	2.00	4.93							6	3
58	7	5	2	1.64	5.14		3	1	2			6	3
59	2	9	3	2.07	5.00							9	5
60	8	6	0	1.43	5.57			2				3	4
61	1	9	4	2.21	3.93			1				4	5
63	0	4	10	2.71	3.71			2		2		4	7
64	2	11	1	1.93	4.93		1	3				2	5
66	8	6	0	1.43	6.07			3		3		7	1
67	6	7	1	1.64	5.07							2	1
68	6	3	5	1.93	4.14			1		1		4	5
69	5	9	0	1.64	5.93			2	1	2		7	8
70	2	11	1	1.93	5.50						1	3	7
71	5	9	0	1.64	5.14	3	2	1	2		3	4	5
72	10	4	0	1.29	5.29			2		2		7	1
73	5	7	2	1.79	5.36			2	1	3		7	1
75	7	4	3	1.71	5.14		3					9	1
76	3	7	4	2.07	4.93							6	3
77	10	4	0	1.29	5.43		2					d	4
78	1	5	8	2.50	4.36			1				4	2
79	8	5	1	1.50	5.93			3		2		7	7
80	6	6	2	1.71	5.71			3		3		1	6

	BL Level Frequency			Means		Modal Level by Context if Different from BL						Content Categorization	
#	L1	L2	L3	BL	Use	C1	C2	C3	C4	C5	C6	RC Scale	Content
81	6	7	1	1.64	5.57		2					9	5
82	8	5	1	1.50	5.93							9	4
83	5	8	1	1.71	5.57			3	1			9	7
84	4	7	3	1.93	5.36			2	1			d	4
85	6	6	2	1.71	4.93	1		2				2	8
86	9	5	0	1.36	5.93		2			2		2	5
87	0	5	9	2.64	3.21			2		2		4	7
88	7	5	2	1.64	5.43			2				2	8
89	7	6	1	1.57	6.07	1		2	1	2		7	8
90	2	8	4	2.14	4.43				2			6	3
91	7	6	1	1.57	5.29							4	5
93	9	5	0	1.36	5.50			3		1		2	4
94	9	5	0	1.36	6.07		3	2				d	4
95	11	3	0	1.21	6.21		2	2		1		2	4
96	6	7	1	1.64	4.79			1				4	5
97	4	7	3	1.93	5.93							1	6
98	8	5	1	1.50	5.43			3	1	2		7	8
99	10	2	2	1.43	5.79							2	1
100	3	9	2	1.93	4.79						1	3	5
101	1	4	9	2.57	4.21			1				4	7
102	1	11	2	2.07	5.14			3	1			7	1
103	5	8	1	1.71	5.43		3					4	7
104	0	3	11	2.79	4.14			3		2		6	5
105	0	13	1	2.07	4.50	2			2		1	2	5
106	4	6	4	2.00	4.29							6	3
107	4	8	2	1.86	4.86			3				7	7
108	0	10	4	2.29	3.07				2			1	6
109	4	8	2	1.86	3.93	3	3	1	3		3	4	2
110	10	3	1	1.36	5.79		2			2		7	1
111	4	10	0	1.71	5.00		3		1	2		7	1
112	3	7	4	2.07	3.64			1				4	2
113	3	6	5	2.14	3.79							6	3
114	7	7	0	1.50	5.07		2	2		2		2	5
115	0	4	10	2.71	4.29					2	2	9	5
116	11	3	0	1.21	6.07	1	3		3	2	2	9	2
118	4	10	0	1.71	5.64						1	3	5
119	0	6	8	2.57	5.36							4	2
120	3	11	0	1.79	5.36			3		2		8	3
121	3	11	0	1.79	5.36							9	7

Item	BL Level Frequency			Means		Modal Level by Context if Different from BL						Content Categorization	
#	L1	L2	L3	BL	Use	C1	C2	C3	C4	C5	C6	RC Scale	Content
122	4	10	0	1.71	5.50			2	1			7	8
124	11	3	0	1.21	5.79		2	2		2		2	1
125	3	10	1	1.86	5.21		3					6	7
126	5	8	1	1.71	5.50		3	1				3	1
127	8	6	0	1.43	5.64		3	2		3		2	1
128	9	4	1	1.43	5.64	3	3	1	3		2	9	1
129	4	6	4	2.00	4.86		3	1				9	7
130	10	3	1	1.36	5.79		2			2	2	9	8
131	0	10	4	2.29	4.71			3	1			7	7
132	1	10	3	2.14	4.93			3				3	7
133	8	6	0	1.43	5.86		3	3		3		2	8
134	4	10	0	1.71	5.86			3	1		1	9	5
135	7	7	0	1.50	6.00			3				9	7
136	8	5	1	1.50	4.86			3				3	5
139	8	6	0	1.43	5.50			2		3		1	1
140	5	9	0	1.64	5.86			3	1	2	1	9	5
141	10	4	0	1.29	5.86		3	3		3		7	8
142	7	7	0	1.50	5.57		2	3	1			7	8
143	12	2	0	1.14	6.36		3	2		2		d	1
144	0	5	9	2.64	4.79			2				4	2
145	1	11	2	2.07	4.71							1	5
146	6	8	0	1.57	5.36			3	1	2	1	7	1
147	1	7	6	2.36	4.36			1		1		4	7
148	2	9	3	2.07	5.07			3	1			1	6
150	13	1	0	1.07	6.36		3	2		1		2	6
151	3	7	4	2.07	4.43			1		1		6	5
152	0	11	3	2.21	4.71	3	3	2			2	4	7
153	12	2	0	1.14	6.21		1					2	6
154	5	9	0	1.64	4.79	2	3		2	3	2	9	2
155	10	4	0	1.29	5.43							1	6
156	4	4	6	2.14	4.21							9	4
157	12	2	0	1.14	6.14		1	2		2		2	4
158	6	7	1	1.64	5.14		3			3		8	3
159	5	9	0	1.64	5.43			3			1	2	2
160	2	12	0	1.86	4.64				1			7	5
161	5	5	4	1.93	5.29			1		1		3	5
162	7	6	1	1.57	5.50	2	2					9	2
163	11	3	0	1.21	6.36		3	3		3		7	4
164	10	4	0	1.29	5.50							6	8

Item	BL Level Frequency			Means		Modal Level by Context if Different from BL						Content Categorization	
#	L1	L2	L3	BL	Use	C1	C2	C3	C4	C5	C6	RC Scale	Content
165	1	10	3	2.14	4.71			3	1		1	7	1
166	14	0	0	1.00	6.21		1	2		1	1	2	6
167	6	6	2	1.71	4.57							1	6
168	6	7	1	1.64	5.93							3	5
169	0	3	11	2.79	3.50			3				4	7
170	3	9	2	1.93	5.21		3					4	7
171	12	1	1	1.21	6.14		3	3				2	4
172	7	7	0	1.50	5.43		2					4	7
174	10	3	1	1.36	5.21			2				1	6
175	1	2	11	2.71	3.71			3				4	2
177	3	5	6	2.21	4.14							1	2
178	5	7	2	1.79	5.50							8	3
179	3	7	4	2.07	4.79				1			6	3
180	5	9	0	1.64	4.50							8	3
181	12	1	1	1.21	5.79		3	2		2		2	1
182	8	5	1	1.50	4.93		2					3	8
183	6	6	2	1.71	5.64		3					4	4
184	4	9	1	1.79	4.57						1	7	7
185	9	5	0	1.36	5.07		3	2		2	2	8	8
186	10	4	0	1.29	6.07		3	2				d	4
187	4	8	2	1.86	5.21		3	1				7	1
188	7	6	1	1.57	5.29	2		1	2		2	9	5
189	0	5	9	2.64	4.36			2		2		3	5
190	6	6	2	1.71	4.64					3	2	8	3
191	3	3	8	2.36	3.50			1				4	2
192	1	13	0	1.93	5.57	1		3	1			2	1
193	5	9	0	1.64	5.57		3		1			7	1
194	12	2	0	1.14	5.50		2	3		2		7	1
196	3	9	2	1.93	4.93							8	1
197	4	7	3	1.93	4.21							8	3
201	11	3	0	1.21	5.79	3	3	1	2	2	2	4	2
202	5	8	1	1.71	5.86			3	1	3	1	6	8
203	1	9	4	2.21	3.86							7	1
204	5	8	1	1.71	5.71							7	1
205	1	4	9	2.57	4.00				2		2	7	5
206	5	5	4	1.93	3.29			1				9	5
207	2	7	5	2.21	4.86		3					4	1

Note. "L1"-"L3" refer to Levels 1-3. "BL" = Baseline. Contexts are: (1) low self-esteem, (2) positive impression managing, (3) low agreeableness, (4) high neuroticism, (5) external locus of control, and (6) high introversion.

APPENDIX C

INSTRUCTIONS TO RATERS

General Instructions:

We are interested in how clinicians provide assessment feedback to clients. Specifically, we are interested in what types of feedback are considered by the clinician to be readily accepted by those clients to whom feedback is given. Therefore, we are asking you to provide ratings of how acceptable you think that clients will find the various pieces of feedback presented. For every piece of feedback that you will be rating, consider each statement in isolation. In addition, please assume that for each piece of feedback, you have determined that that statement is applicable to the client to whom you are providing feedback, and that you have determined that it is appropriate to tell the client that piece of feedback as part of the assessment.

*For this study, you will use a system of rating feedback statements developed by researchers and clinicians as a method of giving feedback based on likelihood of acceptability by the client. This method first asks you to rate each feedback statement as belonging to one of three levels: **Level 1** statements are those that "verify clients' usual ways of thinking about themselves and that will be accepted easily in the feedback session. When told this information, a client will generally say, 'That sounds exactly like me.'" **Level 2** statements are those that "modify or amplify clients' usual ways of thinking about themselves, but that are unlikely to threaten self-esteem or cherished self-perceptions. When told this type of information, a client might say, 'I've never thought about myself quite this way before, but I can see how what you're saying fits.'" **Level 3** statements are those that "are so novel or discrepant from clients' usual ways of thinking about themselves that they are likely to be rejected in feedback sessions. Typically, Level 3 findings are quite anxiety provoking for clients, and thus are likely to mobilize their characteristic defense mechanisms."*

Baseline Ratings:

Please rate the following statements on a scale of 1 (extremely likely to be accepted as true by clients, in general) to 3 (not at all likely to be accepted as true by clients, in general). Please also rate the following statements on a scale of 1 (extremely likely that I would actually use this feedback statement, with minimal alterations in wording permissible) to 7 (extremely unlikely that I would actually use this feedback statement, with minimal alterations in wording permissible). Again, assume that for all statements, you have determined that it is true of the client and that it is appropriate to provide this feedback statement to the client.

Context Ratings:

     Now, we will be asking you to consider various client characteristics as you rate how readily acceptable you believe each feedback statement will be. As always, you are to assume that each piece of feedback does apply to the client, and that you have determined it to be appropriate to provide this feedback statement to the client.

     Please rate the following statements on a scale of 1 (extremely likely to be accepted as true of a client who _____) to 3 (not at all likely to be accepted as true of a client who _____). While rating the following statements, please consider that the client is _____; please assume that you determined this to be true of this client based on your clinical interview (your clinical impressions as well as objective responses by the client to your questions) with the client, as well as the sum total of the results of the assessment.

APPENDIX D

ITEM-LEVEL EFFECT SIZES FOR CONTEXTS

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
			RCd					
31	You do not respond well to stressful situations.	1.93		0.86				
36	You feel "on-edge" and tense much of the time.	1.07		1.34			1.17	0.89
47	You feel broken, damaged, or unlovable.	2.00			2.17			
51	You feel sad and unhappy a lot of the time, sometimes bursting into tears for no reason.	1.14		1.99	1.65		1.62	
77	You wonder why you feel the way you do and have the problems you do.	1.29		1.13				
84	When you find yourself feeling stressed, you don't have a lot strategies to cope with the feelings.	1.93			1.13	-0.87		
94	You are finding that you become overwhelmed by things now that never used to bother you.	1.36		1.07	1.21			
143	You feel sad and unhappy.	1.14		1.72	2.04		1.39	
186	Despite your best efforts, you are unable to find ways to feel better.	1.29		1.31	1.36			
			RC1					
80	You are sensitive to changes in your body, and these sensations frighten you.	1.71			0.87		0.94	
97	You develop physical problems when feeling stressed.	1.93						
108	You experience little pleasure from your body.	2.29				-0.98		
139	You are afraid of death and illness.	1.43			0.98		1.03	
145	You have a hard time seeing how stress, mood, and thoughts can affect you physically.	2.07						

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
148	You become more distressed than others when you notice physical pain, sensations, or changes in your own body, finding them hard to ignore.	2.07			1.10	-1.65		
155	You are very aware of the possibility of death or decline in health.	1.29						
167	You have a hard time saying where your pain is located; it seems to shift from place to place.	1.71						
174	Aging and declining health are scary to you.	1.36			0.89			
177	You have been told that you avoid your duties by "playing sick."	2.21						

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Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
9	You are more pessimistic than most of the people around you.	1.86						
30	You feel that you often don't have the right to ask for what you want or need.	1.93	-1.22		1.60	-1.41		-1.05
46	You feel that you have nothing left to lose.	2.00	-1.11					
52	You find that it is hard to make yourself happy or enjoy activities anymore.	1.57	-1.18		1.44	-0.84		
64	You put off letting others know when you are upset until you are absolutely sure that you justified in doing so.	1.93		-0.91	1.63			
67	Your experience of life is that the world is boring, dull, and unimpressive.	1.64						
85	You feel that the future is bleak, with nothing to look forward to.	1.71	-1.16		1.32			
86	You find social interactions emotionally draining even if they are positive; you need some alone time to feel recharged.	1.36		0.94			1.32	
88	You feel that there is nothing to look forward to.	1.64			1.38			

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
93	You use a lot of mental and physical energy trying to put on a brave face when you are not feeling well.	1.36			0.82		0.86	
95	You find yourself having more problems getting things done than you used to.	1.21		1.10	1.83		0.83	
99	You often feel bored with activities or your life in general.	1.43						
105	You try not to want things because you know you will never get what you want.	2.07	-0.96			-1.23		-1.01
114	You try not to want things too much because you know you will be disappointed.	1.50		0.85	1.01		0.93	
124	You don't find life rewarding and pleasurable anymore.	1.21		1.79	1.45		1.05	
127	You often feel like a failure, and you have a low opinion of yourself.	1.43		1.48	1.54		1.76	
133	You are not confident in your abilities or self-worth.	1.43		1.58	2.16		0.82	
150	Your lack of energy interferes with your ability to get even very important things done.	1.07		1.45	0.97		1.17	
153	You find yourself becoming tired or lacking energy for no apparent cause throughout the day.	1.14		1.22				
157	You are finding that you have a harder time getting going or starting projects than you used to have.	1.14		1.12	1.16		0.99	
159	You find yourself observing what's going on around you instead of taking part.	1.64			0.92			-1.43
166	You often feel so tired that you don't have enough energy to get through even the basic tasks of the day.	1.00		1.47	1.44		1.29	0.92
171	Even the little tasks in life are too much to handle right now.	1.21		1.01	1.30			
181	Sometimes you feel that you are just not able to experience joy or happiness.	1.21		1.29	1.36		1.03	

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
192	You have a hard time accepting compliments because of self-consciousness or feeling unworthy.	1.93	-1.01		1.61	-1.68		
	RC3							
3	You feel that the world is a "dog-eat-dog" place.	1.79		0.89				
11	You need more attention and affection than other people.	2.07			1.16			
18	You have a hard time showing emotion or telling others how you feel.	1.43				1.05		
27	You see other people as exploitative, uncaring, or untrustworthy.	1.93		1.06	-1.27			
38	You feel that it is hard to know whom to trust.	1.64						
40	You find yourself constantly thinking about and doubting the motivations of others.	1.79						
60	You feel like you have no one who could help you if you needed something.	1.43			0.99			
70	You keep others at a distance to protect yourself.	1.93						-1.64
100	You have a hard time trusting other people, not confiding in others your secrets or problems.	1.93						-1.21
118	When you need direction, you think it over deeply instead of seeking out others for their advice or support.	1.71						-1.68
126	You find yourself being angry at the world.	1.71		1.55	-0.86			
132	You tend to trust people too readily.	2.14			1.18			
136	You have been told that you are naive or more gullible than most people.	1.50			1.10			
161	You see other people as looking out only for their own interests.	1.93			-1.36		-0.86	
168	You find it very difficult to "let your guard down."	1.64						
182	You feel like a victim of circumstance.	1.50		1.02				

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
189	You have higher standards for other people than yourself.	2.64			-0.97		-1.00	

| | RC4 | | | | | | | |

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
5	You feel, or you have been told, that you have an "addictive personality."	1.86		1.24				
6	You often act rashly when feeling stressed out or in pain.	1.71		1.57				0.88
7	You feel a strong need to punish others if they have hurt you.	2.50	0.82	1.05	-1.72			
8	You do not act a certain way just because other people or the community expect you to act that way.	1.36	1.32		-1.65	1.38		0.86
24	You have problems at the workplace because of what others have called a bad attitude, contrariness, or because you broke the rules.	2.00		1.17	-1.46			
34	You have used or abused drugs to quiet your mind or numb yourself from feeling badly.	1.64		1.52			0.88	
61	You find it intolerable to be in a subordinate position.	2.21			-1.41			
63	You don't notice or care about how others are feeling much of the time.	2.71			-0.87		-1.44	
68	If you were not compelled to by family or the law to enter therapy, you would never do so because you know that you are not at fault.	1.93			-1.38		-0.90	
71	You like to challenge the way other people say to do things.	1.64	0.88	1.00	-1.22	1.29		1.16
78	To get out of trouble or avoid conflict, you have no qualms about lying.	2.50			-1.20			
87	You enjoy pointing out the faults in others and arguing your point, even if there is no real benefit to it.	2.64			-0.98		-1.24	
91	When you are angry with someone, you do not come right out and tell that person how you are feeling.	1.57						

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
96	You feel a strong sense of justice and a need to right wrongs.	1.64			-1.21			
101	When you get angry, you tend to cut people down with your words or sarcasm.	2.57			-1.92			
103	You have problems getting along well with coworkers and supervisors.	1.71		1.55				
109	You have been told that you would step on others' backs to get ahead in life, and you would agree with this.	1.86	1.26	1.84	-1.38	1.04		1.13
112	You feel that rules and laws are meant for "sheep" and the weak, not you.	2.07			-1.71			
119	You are at risk for becoming addicted to or using substances in a dangerous way.	2.57						
144	You take your anger out on other people.	2.64			-1.48			
147	You don't spend a lot of energy worrying about how your words or actions affect others.	2.36			-0.81		-0.90	
152	You feel alienated from other people and become hostile toward them.	2.21	0.96	1.16	-1.45			-0.98
169	You feel that you need to manipulate others in order to get your needs met.	2.79			-1.23			
170	You have relationships that are stormy and dramatic.	1.93		1.32				
172	Your personal and family relationships often involve fighting, arguing, and hurt feelings.	1.50		1.19				
175	You are more willing than others to do whatever it takes to get what you want, including lying or cheating.	2.71			-1.17			
183	You have problems holding down a job.	1.71		1.00				
191	You like to know and exploit the flaws or weaknesses of those in authority.	2.36			-1.41			
201	You have had problems with the authorities, perhaps leading to legal problems.	1.21	1.61	2.04	1.09	1.44	0.98	1.05

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
207	You have had outbursts of rage or hostility from even minor provocations.	2.21		1.16				

| | RC6 | | | | | | | |

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
4	You have a hard time ever being sure that you know what other people mean or intend; you have been told that you don't "read people" very well.	2.00						-0.83
10	You think a lot about needing to protect yourself from other people by being mean to them first.	2.71					-0.97	-0.81
15	You frequently have an intuitive sense that others are plotting against you or wish harm upon you, even if you have never met them.	2.50						
17	You tend to have problems in relationships due to suspiciousness or jealousy.	2.00		1.63				
26	You feel judged by others much of the time.	1.57						
37	When someone or something makes you angry, you feel that that person or thing is evil.	2.50			-0.98			0.82
50	You feel that people don't understand you, and they treat you unfairly.	1.57						
57	You feel like you are no longer in control of your life completely; someone or something else is affecting your thoughts and/or actions.	2.00						
58	You harbor some resentment toward or bear grudges against your family.	1.64		1.00	-1.01	0.98		
76	You see others as being out to get you.	2.07						
90	You find it difficult or even undesirable to forget about the bad things other have done to you.	2.14				-0.88		
104	You blame other people for your problems.	2.79			-1.01		-1.30	
106	You have some very strong beliefs that others insist are just not true.	2.00						

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
113	People around you have become confused or annoyed by your belief that they were threatening you when they did not feel they were doing so.	2.14						
125	You have a very hard time forming a trusting, loving relationship with others.	1.86		1.00				
151	You can think of other people or events that have caused all or most of the problems in your life.	2.07			-1.18		-1.21	
164	You feel that others are far more critical of you than necessary.	1.29						
179	You have been told by different people that you are too quick to assume that others' words or actions were about you when in reality they had nothing to do with you.	2.07				-1.31		
202	You think a great deal about if others will turn you down or reject you.	1.71			0.85	-0.98	1.18	-0.81
RC7								
2	You find yourself becoming very tired because you are tense all the time.	1.21		1.16	0.81		1.38	
12	You spend a great deal of time planning, practicing, and doing repetitive tasks.	1.21					0.98	
13	You have problems making up your mind and making decisions.	1.14		1.16	1.86		1.04	
20	You have a lot of muscle tension or pain because of being tensed or anxious much of the time.	1.29		0.98	1.21	-0.85	1.24	
22	You find yourself monitoring your surroundings for potential threats to your well-being or safety.	1.57		0.82				
23	You feel nervous or afraid much of the time.	1.29		1.65	1.86		1.59	
29	Even when things are going well, you are still nervous or worried.	1.21		1.30	1.19		2.00	

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
33	Your thoughts are filled with fears of failure and criticism.	1.50		0.87	1.96		0.86	
35	You have a hard time "switching off" or "shutting out" negative thoughts.	1.36		0.94	1.55		1.60	
41	You work very hard to gain others' approval.	1.71			1.88			
49	You find it difficult to be spontaneous or "let loose."	1.71			0.89	-1.40		-0.81
55	You worry a lot about making mistakes, because if you make one, it will be a disaster.	1.93			1.08	-1.39	1.03	
56	You are often so caught up in your own negative thoughts that you don't realize what's going on around you, even when you're trying to focus.	1.93			0.91	-1.05	0.91	
66	You feel deeply guilty when something goes wrong, even if you had nothing to do with it.	1.43			2.49		1.48	
69	You find yourself rehashing the past or worrying about the future instead of focusing on the present.	1.64			0.86	-1.62	1.19	
72	You feel overwhelmed by too much attention.	1.29			1.32		1.48	
73	When you become upset by someone or something, you blame yourself for allowing yourself to be affected.	1.79			0.90	-0.86	0.82	
79	You try very hard to not warrant critical remarks or negative feedback.	1.50			1.38		0.94	
89	You rehash your mistakes or shortcomings a lot in your mind.	1.57	-0.84		1.84	-0.84	1.27	
98	You have a hard time trusting that you have done something well enough or that you have made the right decision.	1.50			1.08	-0.87	1.02	
102	You are highly self-critical and harbor a lot of guilt over trivial things.	2.07			1.38	-1.97		
107	You have been told that you are passive, a "push-over," or a "doormat" in relationships.	1.86			1.57			

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
110	You feel your moods very intensely.	1.36		0.87			1.46	
111	Most of the time, you feel a sense of dread or impending doom.	1.71		1.06		-1.68	0.98	
122	You find that the world is scary because nothing is certain.	1.71			1.19	-1.16		
131	You have a great need to be taken care of by others.	2.29			0.84	-0.96		
141	You have tried many times to stop thinking about uncomfortable or fearful thoughts, but you still have them for a large part of the day.	1.29		1.42	1.19		2.06	
142	You often feel that the world and the future are unpredictable and scary.	1.50		1.01	1.35	-0.82		
146	You feel overwhelmed easily by too much attention.	1.57			0.98	-1.23	0.83	-0.85
160	You will put off asking for what you want until you are absolutely sure that you actually deserve it.	1.86				-1.68		
163	You avoid doing many things you would like to do because of fear or anxiety.	1.21		1.55	1.46		1.86	
165	You have a "thin skin," being quite sensitive to critical remarks or areas of potential improvement.	2.14			1.62	-1.25		-1.00
184	You find it hard to connect with other people at the level that they want of you.	1.79						-0.98
187	You find yourself becoming irritated by very minor things to the point that people often call you grouchy or have to "walk on eggshells" around you.	1.86		1.24	-1.09			
193	When the outcome is unsure, your instinct is to believe that something bad will happen.	1.64		0.81		-0.96		
194	You find yourself becoming speechless when talking to others.	1.14		1.42	1.27		1.34	
203	Even when things are going well, you find yourself feeling strangely cold, angry, or disgusted.	2.21						

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
204	You find yourself becoming lost in the details of things, losing sight of the original purpose or goal.	1.71						
205	You are afraid to look at people or ideas from different perspectives.	2.57				-0.89		-0.82
	RC8							
14	Sometimes it can be hard for you to know what is real and what isn't.	2.36						
16	You sometimes feel like you do not belong to this world, or that you things seem not quite real.	1.93		1.35				
21	You feel off-balanced and confused.	1.57		0.92	1.24		0.81	
39	Sometimes you have thoughts or flashes of images that seem to come from nowhere; you cannot stop thinking about these things despite your best efforts.	1.43		0.96	1.06		1.66	
48	You feel distant or separate from others.	1.50		0.87	1.84			
54	You sometimes have a hard time thinking in a realistic way.	2.64						-0.82
120	You have a hard time keeping your mind on one thought, which in turn makes it hard for other people to understand you sometimes.	1.79			0.91		1.09	
158	You have seen or heard things or people that other people cannot see or hear.	1.64		1.79			0.90	
178	When feeling very upset, you are apt to "disconnect from yourself" or start day-dreaming.	1.79						
180	You sometimes feel like you are looking at the world from a distance.	1.64						
185	You fear that you are losing your mind or going crazy.	1.36		1.46	0.98		1.38	1.00
190	You believe that you have special abilities that other people do not have.	1.71					0.82	0.82
196	You find it hard to tell how you are feeling at any given time.	1.93						

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
197	You are more likely to believe in the paranormal or conspiracies than most other people.	1.93						

	RC9							
1	You have periods of days at a time where you are easily annoyed, hostile with others, or aggressive for no apparent reason.	2.14						
19	You find it hard to commit to a course of action or people.	1.86			1.22	-1.18		
42	Your thoughts have raced so much that you have a hard time following them, and others cannot understand your speech.	1.64		1.17				
43	You have a hard time keeping your attention on one thing for very long.	1.14		1.01	0.86		1.16	
53	You tend to go for the big, grand idea rather than taking a slow, steady approach toward solving a problem	2.00			-0.86			
59	You find that doing things that others would consider reckless or dangerous the only way to feel alive and get rid of an overwhelming sense of boredom.	2.07						
75	Your mood shifts quickly from good to bad; you have a reputation for being "moody."	1.71		1.09				
81	When you get the urge or craving to do something, it is extremely difficult if not impossible for you to ignore it, eventually giving in.	1.64		0.98				
82	You sometimes take on so many responsibilities that it is impossible to complete them all.	1.50						
83	You find it hard to assert your needs, tell others no, or take charge of a situation.	1.71			1.71	-0.98		
115	You won't admit to making small mistakes.	2.71					-1.07	-1.18

Item	Inference	BL M	LSE	PIM	LA	HN	ELOC	HI
116	You like to seek out excitement and enjoy risky or dangerous situations.	1.21	1.14	1.36		2.22	1.16	2.06
121	You find yourself becoming bored or restless in relationships.	1.79						
128	You have been told that you have a quick temper or that you are a "hothead."	1.43	1.04	1.68	-1.14	1.61		1.29
129	You have been told that you like to argue for the sake of arguing, and you come across as being too critical.	2.00		0.93	-1.20			
130	Sometimes your thoughts shift so quickly that you cannot keep up with them.	1.36		1.15			1.19	0.82
134	You avoid situations where you have to compete against other people.	1.71			1.08	-0.98		-0.98
135	You go way out of your way to avoid conflict with others.	1.50			0.81			
140	You avoid taking risks or "putting yourself out there."	1.64			1.76	-0.96	0.88	-0.96
154	Sometimes you feel a tension building inside you that can only be released by doing something mind-altering, dangerous, risky, or otherwise stimulating.	1.64	1.29	2.09		1.29	0.88	1.10
156	You have been told that you show poor judgment in many areas of your life.	2.14						
162	You have been so energetic that it concerned loved ones.	1.57	0.83	0.83				
188	You like to stir up excitement when bored.	1.57	0.99		-0.85	0.83		0.83
206	You can think of many examples of supposed 'experts' who didn't know what they were talking about. In fact, your skills far outweighed those of the expert even without any formal training.	1.93			-1.36			

Note. "BL" = Baseline. Contexts are: (1) low self-esteem, (2) positive impression managing, (3) low agreeableness, (4) high neuroticism, (5) external locus of control, and (6) high introversion.

APPENDIX E

HIERARCHICAL REGRESSION RESULTS

					Predicting Low Self-Esteem						
Model	*DVs*	R^2	ΔR^2	*part*	*F*	*p(F)*	*p(ΔF)*	*b*	*β*	*t*	*p(t)*
1	BL	0.66	0.66	0.33	182.35	**	**	0.63	0.54	7.74	**
	Use	--	--	-0.19	--	--	--	-0.20	-0.31	-4.46	**
2	BL	0.81	0.14	0.25	72.93	**	**	0.49	0.07	7.47	**
	Use	--	--	-0.14	--	--	--	-0.14	-0.23	-4.08	**
	RC1	--	--	0.08	--	--	--	0.23	0.11	2.34	**
	RC2	--	--	0.00	--	--	--	-0.01	-0.01	-0.10	0.92
	RC3	--	--	0.12	--	--	--	0.32	0.19	3.57	**
	RC4	--	--	0.24	--	--	--	0.62	0.48	7.12	**
	RC6	--	--	0.15	--	--	--	0.40	0.26	4.42	**
	RC7	--	--	0.07	--	--	--	0.18	0.15	2.21	**
	RC8	--	--	0.10	--	--	--	0.30	0.16	3.15	**
	RC9	--	--	0.17	--	--	--	0.44	0.31	5.23	**

					Predicting Positive Impression Managing						
Model	*DVs*	R^2	ΔR^2	*part*	*F*	*p(F)*	*p(ΔF)*	*b*	*β*	*t*	*p(t)*
1	BL	0.37	0.37	0.28	54.15	**	**	0.41	0.46	4.73	**
	Use	--	--	-0.11	--	--	--	-0.09	-0.18	-1.88	0.06
2	BL	0.48	0.11	0.24	16.35	**	**	0.36	0.40	4.38	**
	Use	--	--	-0.07	--	--	--	-0.06	-0.11	-1.25	0.21
	RC1	--	--	-0.15	--	--	--	-0.36	-0.22	-2.83	**
	RC2	--	--	-0.14	--	--	--	-0.27	-0.25	-2.52	**
	RC3	--	--	-0.15	--	--	--	-0.31	-0.24	-2.70	**
	RC4	--	--	0.01	--	--	--	0.02	0.02	0.20	0.84
	RC6	--	--	-0.05	--	--	--	-0.10	-0.08	-0.86	0.39
	RC7	--	--	-0.16	--	--	--	-0.30	-0.33	-2.95	**
	RC8	--	--	-0.04	--	--	--	-0.08	-0.06	-0.69	0.49
	RC9	--	--	-0.09	--	--	--	-0.19	-0.17	-1.73	0.09

				Predicting Low Agreeableness							
Model	*DVs*	R^2	ΔR^2	*part*	*F*	*p(F)*	*p(ΔF)*	*b*	*β*	*t*	*p(t)*
1	BL	0.09	0.09	0.30	9.03	**	**	0.43	0.49	4.23	**
	Use	--	--	0.25	--	--	--	0.20	0.42	3.59	**
2	BL	0.41	0.32	0.39	12.05	**	**	0.59	0.67	6.76	**
	Use	--	--	0.21	--	--	--	0.17	0.36	3.68	**
	RC1	--	--	-0.02	--	--	--	-0.04	-0.03	-0.31	0.76
	RC2	--	--	-0.05	--	--	--	-0.11	-0.10	-0.95	0.35
	RC3	--	--	-0.20	--	--	--	-0.41	-0.32	-3.37	**
	RC4	--	--	-0.24	--	--	--	-0.48	-0.49	-4.16	**
	RC6	--	--	-0.28	--	--	--	-0.38	-0.32	-3.14	**
	RC7	--	--	0.04	--	--	--	0.07	0.08	0.63	0.53
	RC8	--	--	0.06	--	--	--	0.14	0.10	1.09	0.28
	RC9	--	--	-0.14	--	--	--	-0.27	-0.25	-2.41	0.02

				Predicting High Neuroticism							
Model	*DVs*	R^2	ΔR^2	*part*	*F*	*p(F)*	*p(ΔF)*	*b*	*β*	*t*	*p(t)*
1	BL	0.52	0.52	0.24	97.83	**	**	0.43	0.40	4.72	**
	Use	--	--	-0.22	--	--	--	-0.21	-0.36	-4.26	**
2	BL	0.72	0.20	0.17	45.48	**	**	0.31	0.28	4.18	**
	Use	--	--	-0.16	--	--	--	-0.16	-0.27	-3.98	**
	RC1	--	--	-0.01	--	--	--	-0.02	-0.01	-0.18	0.86
	RC2	--	--	0.04	--	--	--	0.11	0.08	1.12	0.27
	RC3	--	--	0.12	--	--	--	0.30	0.19	2.98	**
	RC4	--	--	0.23	--	--	--	0.57	0.47	5.85	**
	RC6	--	--	0.12	--	--	--	0.31	0.21	3.01	**
	RC7	--	--	-0.02	--	--	--	-0.05	-0.05	-0.60	0.55
	RC8	--	--	0.09	--	--	--	0.25	0.15	2.35	*
	RC9	--	--	0.17	--	--	--	0.41	0.31	4.25	**

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
				Predicting External Locus of Control							
1	BL	0.12	0.12	0.29	12.10	**	**	0.33	0.48	4.25	**
	Use	--	--	0.13	--	--	--	0.08	0.21	1.87	0.06
2	BL	0.37	0.25	0.35	10.34	**	**	0.41	0.60	5.93	**
	Use	--	--	0.12	--	--	--	0.08	0.21	2.03	*
	RC1	--	--	0.05	--	--	--	0.10	0.08	0.92	0.36
	RC2	--	--	-0.04	--	--	--	-0.07	-0.08	-0.75	0.45
	RC3	--	--	-0.14	--	--	--	-0.22	-0.22	-2.29	*
	RC4	--	--	-0.07	--	--	--	-0.10	-0.13	-1.11	0.27
	RC6	--	--	-0.16	--	--	--	-0.26	-0.28	-2.69	**
	RC7	--	--	0.11	--	--	--	0.15	0.22	1.79	0.08
	RC8	--	--	0.11	--	--	--	0.19	0.18	1.87	0.06
	RC9	--	--	-0.04	--	--	--	-0.06	-0.07	-0.68	0.50

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
				Predicting High Introversion							
1	BL	0.51	0.51	0.22	95.50	**	**	0.36	0.37	4.31	**
	Use	--	--	-0.24	--	--	--	-0.21	-0.39	-4.55	**
2	BL	0.62	0.11	0.17	28.70	**	**	0.28	0.29	3.64	**
	Use	--	--	-0.18	--	--	--	-0.17	-0.31	-3.93	**
	RC1	--	--	0.01	--	--	--	0.01	0.01	0.11	0.91
	RC2	--	--	-0.04	--	--	--	-0.08	-0.07	-0.82	0.41
	RC3	--	--	-0.02	--	--	--	-0.05	-0.04	-0.46	0.65
	RC4	--	--	0.16	--	--	--	0.35	0.32	3.37	**
	RC6	--	--	0.04	--	--	--	0.10	0.08	0.93	0.35
	RC7	--	--	-0.02	--	--	--	-0.04	-0.04	-0.45	0.65
	RC8	--	--	0.04	--	--	--	0.10	0.06	0.87	0.38
	RC9	--	--	0.08	--	--	--	0.18	0.15	1.82	0.07

Predicting Low Self-Esteem

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
1	BL	0.66	0.66	0.33	182.35	**	**	0.63	0.54	7.74	**
	Use	--	--	-0.19	--	--	--	-0.20	-0.31	-4.46	**
2	BL	0.73	0.06	0.29	52.99	**	**	0.57	0.49	7.31	**
	Use	--	--	-0.17	--	--	--	-0.18	-0.28	-4.29	**
	Beh	--	--	0.19	--	--	--	0.36	0.23	4.83	**
	Psy	--	--	0.07	--	--	--	0.13	0.09	1.82	0.07
	Imp	--	--	-0.04	--	--	--	-0.08	-0.05	-1.01	0.31
	Per	--	--	0.08	--	--	--	0.12	0.10	1.95	*
	Bod	--	--	-0.01	--	--	--	-0.02	-0.01	-0.25	0.80
	Int	--	--	0.04	--	--	--	0.08	0.06	1.14	0.25
	Cog	--	--	-0.05	--	--	--	-0.09	-0.06	-1.34	0.18

Predicting Positive Impression Managing

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
1	BL	0.37	0.37	0.28	54.15	**	**	0.41	0.46	4.73	**
	Use	--	--	-0.11	--	--	--	-0.09	-0.18	-1.88	0.06
2	BL	0.43	0.06	0.27	14.75	**	*	0.41	0.46	4.71	**
	Use	--	--	-0.11	--	--	--	-0.09	-0.19	-1.96	*
	Beh	--	--	0.02	--	--	--	0.03	0.02	0.31	0.76
	Psy	--	--	0.00	--	--	--	0.00	0.00	-0.04	0.97
	Imp	--	--	0.07	--	--	--	-0.10	-0.08	-1.16	0.25
	Per	--	--	-0.18	--	--	--	-0.23	-0.25	-3.21	**
	Bod	--	--	-0.10	--	--	--	-0.17	-0.11	-1.75	0.08
	Int	--	--	-0.03	--	--	--	-0.05	-0.04	-0.61	0.55
	Cog	--	--	-0.07	--	--	--	-0.09	-0.09	-1.24	0.22

Predicting Low Agreeableness

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
1	BL	0.09	0.09	0.30	9.03	**	**	0.43	0.49	4.23	**
	Use	--	--	0.25	--	--	--	0.20	0.42	3.59	**
2	BL	0.18	0.09	0.34	4.34	**	**	0.52	0.59	5.02	**
	Use	--	--	0.25	--	--	--	0.20	0.42	3.72	**
	Beh	--	--	-0.11	--	--	--	-0.16	-0.13	-1.65	0.10
	Psy	--	--	0.00	--	--	--	0.00	0.00	0.04	0.97
	Imp	--	--	-0.07	--	--	--	-0.10	-0.08	-0.98	0.33
	Per	--	--	-0.18	--	--	--	-0.22	-0.24	-2.65	**
	Bod	--	--	-0.01	--	--	--	-0.01	-0.01	-0.13	0.90
	Int	--	--	-0.15	--	--	--	-0.21	-0.19	-2.15	*
	Cog	--	--	0.08	--	--	--	0.10	0.09	1.13	0.26

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)

Predicting High Neuroticism

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
1	BL	0.52	0.52	0.24	97.83	**	**	0.43	0.40	4.72	**
	Use	--	--	-0.22	--	--	--	-0.21	-0.36	-4.26	**
2	BL	0.64	0.12	0.17	35.17	**	**	0.31	0.29	3.73	**
	Use	--	--	-0.21	--	--	--	-0.20	-0.34	-4.58	**
	Beh	--	--	0.26	--	--	--	0.47	0.32	5.87	**
	Psy	--	--	0.10	--	--	--	0.18	0.12	2.21	*
	Imp	--	--	0.05	--	--	--	0.09	0.06	1.10	0.27
	Per	--	--	0.12	--	--	--	0.19	0.17	2.77	**
	Bod	--	--	-0.05	--	--	--	-0.10	-0.06	-1.08	0.28
	Int	--	--	0.14	--	--	--	0.25	0.18	3.16	**
	Cog	--	--	-0.06	--	--	--	-0.10	-0.08	-1.43	0.15

Predicting External Locus of Control

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
1	BL	0.12	0.12	0.29	12.10	**	**	0.33	0.48	4.25	**
	Use	--	--	0.13	--	--	--	0.08	0.21	1.87	0.06
2	BL	0.20	0.09	0.33	4.98	**	0.01	0.39	0.57	4.97	**
	Use	--	--	0.14	--	--	--	0.09	0.23	2.06	*
	Beh	--	--	-0.07	--	--	--	-0.08	-0.08	-1.02	0.31
	Psy	--	--	-0.08	--	--	--	-0.09	-0.10	-1.23	0.22
	Imp	--	--	-0.20	--	--	--	-0.23	-0.23	-2.92	**
	Per	--	--	-0.22	--	--	--	-0.20	-0.29	-3.21	**
	Bod	--	--	-0.03	--	--	--	-0.03	-0.03	-0.38	0.71
	Int	--	--	-0.18	--	--	--	-0.19	-0.23	-2.63	**
	Cog	--	--	-0.04	--	--	--	-0.04	-0.05	-0.57	0.57

Predicting High Introversion

Model	DVs	R^2	ΔR^2	part	F	p(F)	p(ΔF)	b	β	t	p(t)
1	BL	0.51	0.51	0.22	95.50	**	**	0.36	0.37	4.31	**
	Use	--	--	-0.24	--	--	--	-0.21	-0.39	-4.55	**
2	BL	0.57	0.06	0.22	25.56	**	**	0.37	0.37	4.36	**
	Use	--	--	-0.22	--	--	--	-0.20	-0.37	-4.42	**
	Beh	--	--	0.16	--	--	--	0.25	0.19	3.16	**
	Psy	--	--	0.02	--	--	--	0.02	0.02	0.31	0.76
	Imp	--	--	-0.05	--	--	--	-0.09	-0.06	-1.07	0.28
	Per	--	--	-0.06	--	--	--	-0.08	-0.07	-1.11	0.27
	Bod	--	--	-0.01	--	--	--	-0.02	-0.02	-0.27	0.79
	Int	--	--	-0.03	--	--	--	-0.05	-0.04	-0.69	0.49
	Cog	--	--	-0.05	--	--	--	-0.07	-0.06	-0.92	0.36

Note. * indicates significance at $p < .05$; ** indicates significance at $p < .01$. Comparison groups in the dummy coding were RCd for RC Scales and Mood for content domains.

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