

## 12 Measuring Self-Enhancement: From Self-Report to Concrete Behavior

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### OVERVIEW

Self-enhancement is the tendency to exaggerate one's positive qualities. In the context of questionnaire styles, self-enhancement is typically referred to as socially desirable responding and is tapped by measures such as the Marlowe-Crowne scale (Crowne & Marlowe, 1964). A second category of measures incorporates a criterion by contrasting self-evaluations with intrapsychic or external criteria. By contrast, we highlight two behavioral methods: (1) a reaction-time technique, and (2) a knowledge overclaiming technique. Paulhus's overclaiming method relies on the fact that self-enhancers tend to claim knowledge of nonexistent foils (e.g., people, places, events). Holden's response-latency method exploits the fact that the response times of fakers exhibit a pattern distinct from those of individuals who respond honestly. Our taxonomy of assessment methods is discussed in terms of the continuum running from self-report to concrete behavioral measures.

### INTRODUCTION

The chapters in this collection illustrate that social and personality psychologists tend to address the issue of behavior in rather different ways.

This difference is not surprising given the variety of ways in which the two fields differ in method and theory (Tracy, Robins, & Sherman, in press). Social psychologists tend to view behavior as a concrete outcome reflecting the difference in psychological state induced by an experimental manipulation. In that field, behavior appears to have an exalted status in the hierarchy of scientific credibility. Because it is more tangible, and can be scored more objectively, concrete behavior is commonly viewed as more valid.

By contrast, personality psychologists tend to view behavior as only one of a family of indicators. Two other modes of measuring psychological constructs are considered at least as credible. Ratings by knowledgeable informants, for example, are viewed as superior in some respects (see McCrae & Weiss, 2007; Vazire, 2007). Self-reports too have a variety of advantages that help explain why they remain the single most popular method for measuring personality traits (Paulhus & Vazire, 2007).

The traditional complaint against self-report measures is their vulnerability to self-presentation effects. The general tendency for people to self-enhance continues to raise concerns that self-reports are contaminated with an extraneous source of variance. Thus interest in the concept of self-enhancement arose in the context of controlling for bias in self-reports. That reason alone justifies the prolonged attention given to the development of valid self-enhancement measures. However, the tendency to self-enhance in self-reports has also turned out to be of interest in its own right. For both these reasons, the search continues for improved measures of self-enhancing tendencies.

In this chapter, we consider the potential for indexing self-enhancement via behavioral measures. To properly situate this possibility, our chapter will compare the full range of options from self-report to concrete behavioral methods. We begin with traditional social desirability scales, which rest on the notion that individuals who tend to give extremely desirable responses are not to be trusted. Next we consider measures that incorporate a criterion by contrasting self-evaluations with intrapsychic or external criteria. Closer to the behavioral end of the continuum, the overclaiming approach taps the tendency to claim knowledge of nonexistent items. Finally, we turn to the response latency approach, which is purely behavioral in nature. Our conclusion favors the overclaiming and response latency methods.

Note that our choice of the term self-enhancement is purposely restrictive. We consider those indexes measuring the promotion of positive qualities. We do not include measures of minimizing one's faults. The latter would include concepts such as malingering, self-effacement, and defensiveness and denial (see Paulhus, Fridhandler, & Hayes, 1997).

## STANDARD METHODS

### Socially Desirable Responding

Socially desirable responding is the term applied to positive self-presentation on self-report questionnaires (for a review, see Paulhus, 1991). When asked to rate their own personalities, people tend to bias their ratings in the favorable direction (Edwards, 1970). When measured as a stable individual difference, this tendency is often called a *social desirability (SD) response style*<sup>1</sup> (Jackson & Messick, 1962). The broader concept of *SD response set* includes context-driven motivations to respond desirably. Whether construed as a set or style, the purpose for measuring SDR is concern over dissimulation. A respondent who scores high on an SDR measure is likely to have responded desirably on other questionnaires administered at the same time.

This concern extends to response tendencies beyond a simple favorability bias. People may purposely fabricate an unfavorable image, for example, misrepresenting themselves as mentally ill (Baer et al., 1992) or incompetent (Furnham & Henderson, 1982). Again, we do not address such tendencies in this chapter.

*Factors of SDR.* Early factor analyses had suggested that socially desirable responding was not a uniform unidimensional construct (Edwards, 1970; Wiggins, 1959). Some coherence was brought to the field by Paulhus's (1984) comprehensive factor analyses. He found that extant SDR measures could be arrayed in a two-factor space framed by axes labeled *Self-Deception* and *Impression Management*. The label, *Impression Management*, was based on the rationale argued by Sackeim and Gur (1978): Exaggerated claims for desirable behaviors that are public must be consciously tailored: After all, such responses such as "I always pick up my litter" must be made with full awareness of distorting the truth. Items on the *Self-Deception* scale, by contrast, concern more ambiguous internal events ("My first impressions about people always turn out to be right."). Such claims are more easily rationalized without blatant awareness.

These two sets of items were incorporated into early versions of the *Balanced Inventory of Desirable Responding* (Paulhus, 1986). The correlation between the two subscales was positive but only modest in size.

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<sup>1</sup> Abbreviating the term further to "social desirability" leads to misleading characterizations such as "high in social desirability." That terminology should be reserved for labeling individuals who possess desirable attributes.

The Self Deception scale was later subdivided into Self-Deceptive Enhancement and Self-Deceptive Denial (Paulhus & Reid, 1991).

That development eventuated in the development of Version 6 of the BIDR (Paulhus, 1991). The standard version comprised the Impression Management and Self-Deceptive Enhancement scales. The BIDR-6 has enjoyed wide usage and now approaches the popularity of the Marlowe-Crowne scale. The commercial version, BIDR-7 (also known as the Paulhus Deception Scales), is distributed for financially profitable applications (Paulhus, 1998b). A comprehensive measure that incorporates content domains (agency & communion) is now under development (Paulhus, 2002; 2005).

The acknowledgement of content in SDR measures reinforces long-standing concerns that they contain more substance than style (e.g., McCrae & Costa, 1983). The difficulty of distinguishing SDR from forthright self-descriptions provided by people with socially desirable attributes was exemplified in a series of studies by Graziano and Tobin (2002).

Indeed, it is difficult to conceive of measuring SDR without asking respondents about their personality or abilities. One exception is worth noting. The final item on Costa and McCrae's (1992) NEO-PI-R is "Were you being honest in completing this questionnaire?". The psychometric properties of the self-report measures were weaker among those answering "no" (Carter, Herbst, Stoller, Kidorf, King, Costa, & Brooner, 2001).

*Krueger's Method.* More sophisticated is the idiosyncratic-weighting method (Krueger, 1998; Sinha & Krueger, 1998). Here, self-enhancement is indexed by the correlation between a respondent's self-ratings and his or her desirability ratings of the same items. Effectively, this method weights each item rating by its desirability as judged by the respondent. By contrast, other methods assume implicitly that the social consensus regarding the social desirability of items is shared by all respondents.

The method also has the advantage of adaptability because the weights can be adjusted to address group and context differences. For example, judgments of social desirability differ between psychopaths and non-psychopaths (Kitching & Paulhus, 2008). The disadvantage in such research is that respondents have to judge the same items twice: Once for the desirability ratings; then again for their self-ratings. Moreover, the order of these two tasks influences the self-ratings (Kitching & Paulhus, 2009).

One might argue that this method has a behavioral aspect. Implicitly, respondents are demonstrating the degree to which they value their own responses. In a sense, they are providing a key template for their own responses.

### Contrast Methods: Intrapyschic and External Criteria

The methods in this section differ from SDR measures in several respects. Whereas SDR measures infer self-enhancement from the positivity of self-descriptions, the contrast measures compare self-descriptions with a credible criterion. Because a direct comparison is involved, the latter measures promise to be more effective than are SDR scales in distinguishing distortion from truth.

The primary application of SDR measures has been to determine whether to trust answers on concurrently administered self-report scales. Contrast methods were targeted at something deeper, namely, a characterological tendency toward self-favorability. Issues garnering the most attention are whether self-enhancement is commonplace, adaptive, and unitary.

The Taylor and Brown (1988) review provoked interest in measuring the concept of self-enhancement via contrast methods. Measured in this fashion, self-enhancement can be demonstrated even on anonymous self-descriptions (Baumeister, 1982; Brown, 1998). As such, the phenomenon corresponds to the private audience component of SDR (Paulhus & Trapnell, 2008).

Three issues have dominated the literature. One is the ideal operationalization. A second addresses the adaptiveness of self-enhancement. The third concerns the breadth and structure of self-enhancement.

*Competing Operationalizations.* Although the concept might seem straightforward, much controversy has arisen over the choice of operationalization. Here, we will entertain two that warrant special attention.

*Intrapyschic Comparisons.* The most popular choice has been to index self-enhancement as the tendency to view oneself more positively than one views others. [Kwan, John, Kenny, Bond, and Robins (2004) refer to this operationalization as *social comparison*.] A well-replicated body of research indicates that a majority of people tend to rate themselves above average on lists of evaluative traits (e.g., Brown, 1998). If pervasive, this tendency certainly implies an illusion: After all, it is not possible for a large majority of people to actually be better than average.<sup>2</sup>

To index a general tendency, self-enhancement scores are typically aggregated across a wide set of evaluative traits. Respondents may be asked for separate ratings of self and others or, alternatively, a direct comparison of themselves relative to the average other. A number of

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<sup>2</sup> Although impossible if everyone were referring to the same dimension, individuals tend to define evaluative traits (e.g., intelligence) in an idiosyncratic fashion to ensure that they score high (Dunning, 2005). In that sense, everyone can legitimately report being above average.

studies have confirmed that individuals scoring high on such indexes of self-enhancement tend to be well adjusted (Brown, 1986; Kurt & Paulhus, 2008; Taylor Lerner, Sherman, Sage, & McDowell, 2003).

Note, however, that this operationalization makes it difficult to distinguish self-enhancement from true differences in positive traits. After all, many people are actually above average—even across a large set of traits (Colvin & Block, 1994). In short, the intrapsychic operationalization lacks a reality criterion against which the validity of the self-descriptions can be evaluated.

*External Criterion Discrepancies.* This limitation led a number of other researchers to operationalize self-enhancement as a *criterion discrepancy*, that is, the overestimation of one's positivity relative to a credible criterion. This category of measures includes both difference scores and residual scores. Rather than absolute values, higher numbers indicate the degree to which respondents' self-ratings exceed their criterion scores. Almost invariably, discrepancy measures of self-enhancement have shown negative associations with long-term adjustment outcomes (e.g., Colvin, Block, & Funder, 1995; John & Robins, 1994; Kwan et al., 2004; Paulhus, 1998a; Robins & Beer, 2001; Shedler, Mayman, & Manis, 1993; but see Bonanno, Field, Kovacevic, & Kaltman, 2002).

The most sophisticated version is the SRM approach developed by Virginia Kwan and her colleagues (Kwan, John, Kenny, Bond, & Robins, 2004). It fully exploits the statistical sophistication of Kenny's (1994) social relations model (SRM). The technique decomposes personality ratings into perceiver effects, target effects, and unique self-perception components.

SRM analyses typically draw on round-robin data: That is, all participants rate each other. In one typical application, all members of a task group rate each other and themselves (Paulhus & Reynolds, 1995). All three rating components showed a significant contribution to rating scores.

To measure self-enhancement, Kwan and colleagues took the SRM approach one step further. They included controls for several factors that plague its competitors. The criterion discrepancy method omits a control for the tendency to rate targets high versus low. The intrapsychic method omits a control for the tendency to receive high versus low ratings. The SRM method controls for both in asking, "Is the target's self-rating higher than would be expected from his/her tendency to give and receive high ratings?"

*Adaptiveness of Self-Enhancement.* As noted above, Taylor and Brown (1988) claimed that tendencies toward self-enhancement ("positive

illusions”) were adaptive in most respects. Two decades of further research have revealed that the validity of that claim turns on the choice of operationalizations of self-enhancement.

For example, the Taylor-Brown claim appeared to be supported by such research as the Brown (1986) study: He showed that individuals who claimed to be above average across a wide variety of traits also scored high on a standard self-esteem scale. A number of subsequent studies have supported the Taylor-Brown claim for adaptive outcomes (e.g., Bonanno et al., 2002; Sedikides et al., 2004).

Critics pointed specifically to Taylor and Brown’s use of the intrapsychic operationalization, which lacks a reality criterion against which the validity of the self-descriptions can be evaluated (Colvin et al., 1995; Robins & John, 1997). Critics also pointed to the problem of using self-report outcomes when studying self-report predictors. If individual differences in self-favorability bias contaminate both the predictor and outcome, this common method variance will induce an artifactual positive correlation (Colvin & Block, 1994). For that reason, many critics have insisted that the criterion measures for adaptiveness be independent external measures such as peer-rated adjustment (Paulhus, 1998a), expert ratings of adjustment (Colvin et al., 1995), or school grades (Gramzow, Elliot, Asher, & McGregor, 2003; Robins & Beer, 2001).

Such criticism led many researchers to turn to the criterion discrepancy operationalization of self-enhancement. When external criteria were used to evaluate outcomes, discrepancy measures of self-enhancement showed long-term maladaptive outcomes (e.g., Colvin et al., 1995; John & Robins, 1994; Paulhus, 1998a; Robins & Beer, 2001).

Even with the discrepancy operationalization, however, the outcomes of self-enhancement are not uniformly negative. For example, Paulhus (1998a) investigated reactions to self-enhancers in two longitudinal studies where small groups met weekly for a total of 7 weeks. Results showed that, although high self-enhancers were initially perceived favorably, those perceptions became more and more negative over time. Paulhus concluded that self-enhancing tendencies were a “mixed blessing” (p. 1207).

This mixed blessing was also evident in subsequent research reported by Robins and Beer (2001). They showed, in two studies, that self-enhancing tendencies had short-term affective benefits but did long-term damage to self-esteem and task engagement as disconfirmation of overly positive self-assessments became evident. Even with concrete behavioral criteria, then, the research seems to dispute claims that self-enhancement has any long-term adaptive outcomes.



Recently, Kurt and Paulhus (2008) have provided a head-to-head comparison of the intrapsychic and criterion discrepancy methods. They also expanded the outcomes to include four different measures of psychological adjustment. Results showed that, in the same sample, intrapsychic measures had positive associations and discrepancy measures had negative associations with externally evaluated adjustment—except self-rated self-esteem.

In sum, the literature indicates that the criterion discrepancy measure is more valid than the intrapsychic method for tapping chronic self-enhancement. Based on research with the more valid measure, we conclude that chronic self-enhancement is linked to maladaptive attributes. The jury is still out on the direction of causation.

Three exceptions are noteworthy. One is that chronic self-enhancement may promote intrapsychic forms of adjustment such as self-esteem and happiness. Second is that self-enhancement may promote short-term interpersonal adjustment in the sense of engagement with strangers. Third, self-enhancement may pay off in severe settings (e.g., refugee victims), where a formidable self-confidence is required for psychological survival.

In sum, no absolute conclusion can be drawn regarding the Taylor-Brown claim for the adaptiveness of self-enhancement. In retrospect, this outcome is not surprising: It simply confirms the inherent complexity of defining psychological adjustment (Asendorpf & Ostendorf, 1998; Paulhus, Fridhandler, & Hayes, 1997; Scott, 1968).

*Structure of Self-Enhancement.* Does the domain of self-enhancement make a difference? Recent work is converging on the importance of distinguishing between agentic and communal content. Paulhus and John (1998) initiated this work with a factor analysis of self-criterion discrepancies. The two primary factors mapped clearly onto the agency versus communion distinction.

Other researchers have elaborated on this distinction (e.g., Lonqvist, Verkasalo, & Bezmenova, 2007). It has proved especially useful in the study of cross-cultural issues (Church et al., 2006; Kurman, 2001).

A recent chapter by Paulhus and Trapnell (2008) illustrated the parallel between the structure of socially desirable responding measures and that of self-enhancement measures. In both cases, the distinction between agentic and communal content helped organize the available measures. The organizational robustness of these two dimensions may derive from the underlying impact of agentic and communal values (Trapnell & Paulhus, in press).



## THE OVERCLAIMING TECHNIQUE (OCT)

The methods reviewed so far have both advantages and disadvantages. SDR scales offer easy administration but lack a criterion. Criterion discrepancy measures appear more credible but are impractical in standard administration settings because they require collection of the criterion. The overclaiming technique (OCT) was designed as a compromise between these approaches (Paulhus, Harms, Bruce, & Lysy, 2003).

The OCT also incorporates departure from reality, but in a different fashion from the criterion discrepancy method. Respondents are asked to rate their familiarity with a set of persons, places, items, or events. Twenty percent of the items are foils: that is, they do not actually exist. Such responses can be scored via signal detection method to yield both accuracy and bias scores for each respondent.

Respondents receive high accuracy scores to the extent that they claim real items and disclaim foils. A high bias score ensues from an overall tendency to claim items—especially foils. In short, the credibility of this measure derives from the argument that claiming nonexistent items is an a priori index of self-enhancement.

A variety of formulas are provided by Paulhus et al. (2003). Of these, the most intuitively evident are the so called “common-sense measures.” Accuracy is the difference between the hit rate (PH) and the false-alarm rate (PA). Bias is indexed by PFA (or the mean of PH and PFA). The inclusion of PH in the latter formula is based on the assumption that those who self-enhance on the foils also self-enhance on the reals: that is, such respondents inflate their familiarity ratings on both sets of items.

### Item Content

The original overclaiming questionnaire comprised 15 items in each of 10 academic categories (e.g., science, law, philosophy, history, literature, language). A series of studies demonstrated that the accuracy index predicted verbal IQ scores in the .40–.60 range (Paulhus & Harms, 2004). The bias index correlated moderately (.25–.38) with trait self-enhancement measures such as narcissism and the Self-Deceptive Enhancement scale (Paulhus et al., 2003). When the items concerned such lay topics such as sports, music, and films, the bias link was more nuanced. Correlations with narcissism were significant only for topics that the respondent valued. Interestingly, the accuracy scores predicted IQ for virtually any of the lay topics.

Several advantages of the OCT have already been demonstrated. For example, the validity of accuracy scores is sustained under faking conditions, where bias scores increase (Paulhus & Harms, 2004). On the other hand, bias validities are sustained under warning conditions, where the presence of foils is made salient (Paulhus et al., 2003).

A recent practical application is to the field of marketing surveys (Nathanson, Westlake, & Paulhus, 2007). In the traditional approach to indexing product familiarity, a survey with a list of product names is administered. But foils are rarely included. We developed a marketing survey comprising 12 product categories (e.g., wine, cars, fashion designers, cosmetics brands). Following the OCT, 20% of the items in each category were foils. We administered the consumer version under a variety of instructional sets. Our results indicated that the validity of the accuracy index held up even when the bias index was inflated, for example, under instructions to fake good.

Some work has begun on clarifying the processes underlying overclaiming. What would make individuals claim knowledge of nonexistent foils under anonymous circumstances? Preliminary evidence suggests both motivational and cognitive elements at work. Independent of narcissism scores, bias scores tend to correlate with a global memory bias.

In short, the overclaiming technique offers an efficient and robust method for indexing self-enhancement. It is robust across a variety of administration conditions. Finally, the method is largely nonthreatening and unobtrusive because the apparent purpose is a survey of personal familiarities.

## RESPONSE LATENCIES

As an assessment tool for detecting response biases, response times have a long history. Consider that in 1908, Munsterberg (p. 86) stated that deceptive responses have an “involuntary retardation by emotional influence.” Although intuitively appealing as a indicator of dissimulation, empirical evidence for the use of *raw* response latencies as indicators of lying suggests that the effects tend to be small and subject to moderating influences (DePaulo et al., 2003). A more refined approach to the use of response times arose in the 1980s: It sought to reduce the low signal-to-noise ratio inherent in latency data (Fazio, 1990). In particular, as information processing models came to be applied to personality, schema theory and notions of self-schema led to the use of adjusted rather than raw response times for assessing standing on personality traits (Erdle & Lalonde, 1986).

Consider that a schema is a cognitive structure that directs the acquisition, organization, and application of knowledge; that a self-schema is one based on past experiences and representative of the self; and that a personality trait represents a structural component of a schema (Fekken & Holden, 1992). A prominent self-schema (e.g., a salient personality trait), will induce differential processing of schema-relevant and schema-irrelevant information. Schema-consistent information will be accepted faster (and rejected more slowly) and schema-inconsistent information will be rejected faster (and accepted more slowly). As a result, individuals at the high end of a personality trait will endorse a relevant positively-keyed personality item more quickly than they reject it and will reject a relevant negatively-keyed personality item more quickly than they endorse it.

Of course, the response time for a specific individual answering a specific item is determined by myriad factors, many of which are not directly relevant to the personality trait being measured (Holden, Fekken, & Cotton, 1991). Most specific about these factors is Rogers's (1974a, b) independent stage model of responding to personality items. In identifying distinct stages for stimulus encoding, stimulus comprehension, self-referent decision making, and response selection, he served to highlight various item properties that influence the speed of processing for specific stages. Examples of item factors included item length, item ambiguity, item controversiality, number of response options, and so forth. Holden et al. extended Rogers's model by identifying corresponding person factors that affect processing speed for these same stages. Examples of person factors included reading speed, verbal ability, schema organization, motor speed, and so forth. Subsequent work by Holden and colleagues demonstrated that the key factors in measuring personality traits are not the main effects attributable to items or to persons but, rather, the interaction of the schema-relevant item and the respondent's relevant schema.

In addition to controlling for main effects for items and for persons, the use of response times must also take into account whether a respondent endorses or rejects a trait-relevant personality item (Erdle & Lalonde, 1986). Endorsement and rejection represent opposite sides of the "inverted-U RT" effect found for decision times for self-ratings of adjective descriptors (Kuiper, 1981) and personality items (Akrami, Hedlund, & Ekehammar, 2007). Further, because single latencies tend to be unreliable, more reliable response latencies are obtained by averaging over related trait-specific items. When these adjustments are undertaken (see Appendix for a detailed example), response latencies will demonstrate appropriate patterns of validity for scales of personality and psychopathology in adults,

children, and psychiatric patients (Holden et al., 1991) and will generally demonstrate the presence of construct validity (Fekken & Holden, 1994; Holden & Fekken, 1993).

Although relevant for assessing personality self-schemas, this response latency approach for response times has been extended to adopted schemas associated with faking (Holden & Hibbs, 1995; Holden & Kroner, 1992; Holden, Kroner, Fekken, & Popham, 1992). Individuals faking good will take relatively longer in providing responses that make them look bad rather than good. (Individuals faking good will provide some negative information about themselves. If they offer only favorable responses, standard validity scales will detect this.) Respondents who fake bad will take relatively longer to give answers that make them look good rather than bad. (Again, individuals faking bad will offer some positive responses to avoid being caught by standard validity scales.) In short, these within-respondent response latency differences represent relatively longer response times for answers that are incompatible with a faking schema than for compatible answers, and these response time differences can generate summary scores that successfully differentiate between honest and dissimulating respondents.

Holden (1995), for example, demonstrated this response incompatibility effect for faking in samples drawn from two distinct populations. Using a job application scenario, 64 university students were randomly assigned to complete a validated personnel selection test under either honest instructions or instructions to maximize their chances of being hired (i.e., fake) for a government job. Item content for the test included 81 items related to delinquency (e.g., employment trouble, illegal drug use). Not surprisingly, individuals instructed to maximize their chances of being hired scored an average of more than one standard deviation lower on an overall measure of delinquency. Importantly, however, although giving keyed responses to many fewer delinquency items, fakers were relatively much slower in providing these relatively fewer "delinquent" responses (i.e., answers incompatible with their schema to fake). Similar findings emerged for a second sample comprising 100 unemployed adults actively seeking employment who were also randomly assigned either to answer honestly or to fake.

More recent research has attempted to explore and expand on the associations between response latencies and faking, but not always successfully. Although some have argued that socially desirable responding is a response-editing process that requires more time than that for honest responding (Holtgraves, 2004; McDaniel & Timm, 1990), there is no evidence to indicate that controlling response times can prevent or reduce faking. Holden, Wood, and Tomashevski (2001) limited response

time to 1.5 s per personality test item and found that the deleterious effects of faking on validity were not diminished. Further, Holden (2005) set a limit of 0.5 s per item and similarly reported that the disruption of validity by faking remained unabated. It appears, therefore, that faking is a primitive process requiring little cognitive load.

In an innovative undertaking using a variation of the Implicit Association Test, Gregg (2007) sought to refine the schema incompatibility effect on response times by enhancing antagonistic responding associated with not answering truthfully. To date, this approach has focused on distinguishing liars and truth-tellers for obviously true and false factual (e.g., “The sky is blue”; “The sky is purple”) and self-descriptive (e.g., “My name is Ron”; “My name is George”) statements. Reported effect sizes were very impressive. Whether this technique can be applied to faking on personality items is unknown but certainly worthy of future investigation.

In sum, we place the response latency approach at the behavioral end of the continuum. Unlike rational scale construction strategies, which emphasize a one-to-one correspondence between verbal reports and reality, response latencies are more indirect because they tap into personality-relevant cognitive processes. In this regard, response latencies, particularly statistically adjusted, aggregated ones, seem less susceptible to deliberate response distortion than standard verbal reports of behavior.

## SUMMARY

This chapter has focused on the potential for measuring self-enhancement via behavioral as opposed to self-report methods. To this end, we organized extant methods into three categories, in increasing order of emphasis on concrete external criteria. These were social desirability scales, criterion comparison methods (intrapsychic and external criterion measures), and behavioral approaches (overclaiming and response latency techniques).

We conclude that the behavioral element of the latter two methods advances their credibility as indexes of self-enhancement. The response latency method is clearly superior to the others with respect to behavioral concreteness. The validity of the overclaiming technique rests on the proposition that any claim to recognize foils is inherently indicative of exaggeration. In both cases, self-reports are still required but it is the behavioral coding of these reports that leads us to recommend them over alternative measures of self-enhancement.

APPENDIX: AN EXAMPLE OF THE COMPUTATION OF ADJUSTED RESPONSE LATENCIES

Note: Data would normally comprise many more items and respondents.

**Personality Items:**

1. I like to be the first to apologize after an argument.
2. I get a kick out of seeing someone I dislike appear foolish in front of others.
3. If public opinion is against me, I usually decide that I am wrong.
4. I get annoyed with people who never want to go anywhere different.
5. I live from day to day without trying to fit my activities into a pattern.

Raw response time latencies (in seconds) for five respondents:

	Item						
Respondent	1	2	3	4	5	Mean	SD
1	4.12	19.82	4.50	6.42	5.06	7.98	6.67
2	9.61	10.43	6.81	6.59	5.83	7.85	2.03
3	3.95	10.66	4.51	14.23	3.40	7.35	4.84
4	4.45	9.45	0.30	3.79	4.28	4.45	3.27
5	10.77	76.31	12.14	6.29	4.50	22.00	30.52
Mean	6.58	25.33	5.65	7.46	4.61		
SD	3.33	28.80	4.32	3.95	0.90		

Step 1. Reset maximum latencies to 40 seconds and minimum latencies to 0.5 seconds (values outside this range are regarded as outliers that will unduly influence analyses).

	Item						
Respondent	1	2	3	4	5	Mean	SD
1	4.12	19.82	4.50	6.42	5.06	7.98	6.67
2	9.61	10.43	6.81	6.59	5.83	7.85	2.03
3	3.95	10.66	4.51	14.23	3.40	7.35	4.84
4	4.45	9.45	0.50	3.79	4.28	4.49	3.20
5	10.77	40.00	12.14	6.29	4.50	14.74	14.47
Mean	6.58	18.07	5.69	7.46	4.61		
SD	3.33	12.96	4.26	3.95	0.90		

Step 2. Standardize within a respondent to adjust for irrelevant person factors such as reading speed, verbal ability, motor speed, etc.

Respondent	Item					Mean	SD
	1	2	3	4	5		
1	-0.58	1.77	-0.52	-0.23	-0.44	0.00	1.00
2	0.86	1.27	-0.51	-0.62	-1.00	0.00	1.00
3	-0.70	0.68	-0.59	1.42	-0.82	0.00	1.00
4	-0.01	1.55	-1.25	-0.22	-0.07	0.00	1.00
5	-0.27	1.75	-0.18	-0.58	-0.71	0.00	1.00
Mean	-0.14	1.40	-0.61	-0.05	-0.61		
SD	0.62	0.45	0.39	0.84	0.36		

Step 3. Standardize within an item to correct for irrelevant item factors such as item length, complexity, order, etc. [Note: For experimental groups, standardizing within an item should use item means and standard deviations associated with a control or normative group]. Results are standardized times that represent latencies relative to the respondent and relative to the item.

Respondent	Item					Mean	SD
	1	2	3	4	5		
1	-0.71	0.82	0.23	-0.22	0.46	0.12	0.60
2	1.61	-0.30	0.25	-0.68	-1.08	-0.04	1.05
3	-0.90	-1.60	0.06	1.74	-0.58	-0.26	1.27
4	0.20	0.32	-1.63	-0.20	1.48	0.03	1.12
5	-0.21	0.76	1.10	-0.64	-0.28	0.15	0.75
Mean	0.00	0.00	0.00	0.00	0.00		
SD	1.00	1.00	1.00	1.00	1.00		

Step 4. These are standardized times. Reset maximum latencies to 3.00 and minimum latencies to -3.00 (values outside this range are regarded as outliers that will unduly influence analyses). [Not necessary for this example].

Step 5. Aggregate data by computing mean latencies within a respondent. Usually done separately for endorsements and rejections of a specific trait (or response style) and done separately for answering true and for answering false to true/false items.

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