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**ABSTRACT**

Recent experiments have shown that people process information about themselves more efficiently than other kinds of information. To investigate individual differences in the processing of self-relevant information, subjects (N=41) rated the self- and other-applicability of 90 traits and completed nine standard personality scales. Several measures were derived from the trait ratings: one represented the degree to which judgments set the subject apart from others in a favorable direction and another served as an index of the favorability of self-applicability judgments. These derived measures yielded significant correlations with several personality scales including Repression-Sensitization and Social Desirability. The findings suggest that those higher in self-esteem spend less time thinking about themselves, a factor that may represent a cognitive aspect of self-esteem. (Author/JAC)

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INFORMATION ABOUT ONESELF

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## Individual Differences in the Processing of Information About Oneself

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Recent experiments have shown that people process information about themselves more efficiently than other kinds of information. That is, they process self-relevant information more rapidly, and retrieve it more reliably. While most self-referent cognition research has focused upon general cognitive processes associated with self-reference (e.g., Markus, 1977; Rogers, Kuiper and Kirker, 1977), little research has examined individual differences in the way people process and remember information about themselves. Because self is the central construct associated with many dimensions of personality (e.g., self-esteem, self-consciousness, etc.), a consideration of individual differences in self-referent cognition should prove fruitful to the understanding of personality.

In a previous report (Breckler and Greenwald, 1981), we described a procedure that yielded a variety of self-referent cognition effects. Subjects indicated self- and other-applicability for 90 traits with judgment latency being recorded for each rating. Subjects were later given a recognition test for some of the previously judged traits plus some new (foil) traits. Examination of the judgment latency data revealed that self-applicability ratings were made faster (a) with increasing self-applicability of traits and (b) for traits on the self-applicability extremes. In addition, judgments that set the subject apart from others in a favorable direction were made rapidly.

Analyses of recognition accuracy showed a preponderance of false alarms (positive recognition for previously not seen traits), replicating an effect reported by Rogers, Rogers, and Kuiper (1979). Subjects tended to give incorrect positive recognition judgments to highly self-descriptive traits that were not previously shown. Subjects also tended to give more false alarms for traits on the self-applicability extremes and for traits that set the subject apart from others in a favorable direction.

These results suggested that a self-description is important to one's self-concept only to the extent that the attribute makes the self distinctive or sets self apart from others. This provides evidence in support of McGuire's distinctiveness principle in his research on the spontaneous self-concept (McGuire and Padawer-Singer, 1976), and Snyder and Fromkin's (1980) work on uniqueness.

Informal examination of the data revealed individual differences associated with many of the reported effects. For example, there were individual differences in the average extent to which subjects' judgments set them apart from others. The purpose of the present study was to more formally investigate individual differences in the processing of self-relevant information.

### Method

41 subjects rated self- and other-applicability for each of 60 traits on computer-administered 100-point scales. Judgment latencies were recorded. Subjects were later tested for recognition of 30 of these traits plus 30 new (foil) traits. This part of the procedure was identical to the one reported above (see Breckler and Greenwald, 1981 for more details). Nine standard personality scales were administered to subjects following the trait rating task. The selected scales were ones that are directly concerned with aspects of the self. These included: The Rosenberg (1965) self-esteem scale, the Janis-Field self-esteem scale (in Hovland and Janis, 1959), the Beck depression inventory (Beck et al., 1961), the Marlowe-Crowne Social Desirability scale (Crowne and Marlowe, 1964), the Private and Public Self-Consciousness scale (Fenigstein, Scheier, and Buss, 1975), the Repression-Sensitization scale (short version developed by Epstein and Fenz, 1967), Snyder's (1974) Self-Monitoring scale, Rotter's (1966) Internal-External Locus of Control scale, and Troidahl and

Powell's (1965) Dogmatism scale (derived from Rokeach, 1960).

Administration of Personality Scales. A novel method for the administration of personality scales was employed in the study. Traditionally, personality scales are administered as "paper-and-pencil" measures. For any particular scale, all items (sometimes with filler items) are presented to subjects on a few sheets of paper. The major problem with this procedure is that subjects may exhibit self-presentational or other scale-associated response biases because all items for each scale are grouped together.

In the present study all the items for all the scales were stored on computer disk. Scale items were presented by randomly selecting (without replacement) from this population of items, until it was exhausted. Subjects viewed the items on a video display and responded to them via a keyboard response panel. In this way items from the same scale were not likely to appear consecutively. The procedure permitted the same flexibility of response formats found in paper-and-pencil measures (e.g., True-False, multiple choice, marking a scale), but the same response format was not likely to appear for more than a few items in a row. Use of this computer-controlled, random-selection-of-items procedure also prevented subjects from skipping items and minimized or eliminated potential coding and scoring errors.

Some Derived Measures. In addition to the individual differences measures associated with the personality scales, several measures were derived from the trait rating procedure.

1. Self-Distinctiveness. The first derived measure represented the degree to which trait judgments for self set the subject apart from others (Self-Distinctiveness), and was calculated by first squaring the difference between each trait's rated self-applicability and its rated other-applicability, and then averaging separately for each subject across all trait ratings.

2. Favorability of Self-Distinctiveness. The second derived measure represented the degree to which trait judgments for self set the subject apart from others in a favorable direction (Favorability of Self-Distinctiveness), and was derived in the following way: The trait words we used were drawn from Anderson's (1968) list of 555 traits. For each trait, Anderson has reported a mean "likableness" rating which is equivalent to trait favorability. These ratings were converted to standard ( $z$ ) scores. Thus a trait falling below the mean favorability would have a negative  $z$ -score and a trait falling above the mean favorability would have a positive  $z$ -score. The magnitude of the  $z$ -score is the distance (in standard deviation units) of the trait's favorability score above or below the mean. The derived measure was calculated by first subtracting the trait's rated other-applicability from its self-applicability, multiplying this difference by the trait's favorability  $z$ -score, and then averaging separately for each subject across all trait ratings. Thus, a large positive number for this measure would indicate a subject who judged self as distinctive in a favorable direction, while a large negative number would show a subject who set self apart from others in a nonfavorable direction.

3. Self-Favorability. The third derived measure served as an index of the favorability of self-applicability judgments (Self-Favorability), and was calculated as the estimated slope when self-applicability of traits was predicted from trait favorability in a simple linear regression for each subject. Values for this measure represent the predicted increase in self-applicability for each unit increase in favorability of traits.

4. Self Judgment Latency. This measure was the average time a subject spent rating the self-applicability of traits.

5. Recognition Accuracy. Two final measure represented each subject's average recognition accuracy for previously judged traits and for new (foil) traits, respectively. Larger values for this measure represent accurate, confident recognition.

### Results and Discussion

The interinventory correlations can be found in Table 1 (the Self-Consciousness scale yielded measures 4, 5, and 6). The correlations between the personality scales and derived measures can be found in Table 2. Intercorrelations among the derived measures are in Table 3. Examination of the Tables reveals several substantial correlations. The Self-Distinctiveness and Favorability of Self-Distinctiveness measures were correlated with Social Desirability and Private Self-Consciousness; increasing Self-Distinctiveness is associated with increasing Social Desirability and increasing Private Self-Consciousness. The Self-Favorability measure was correlated with Repression-Sensitization, Social Desirability, and both self-esteem measures; increasing Self-Favorability is associated with the repression end of the R-S scale, with higher social desirability, and higher self-esteem.

Factor analysis of the correlation matrix revealed two factors associated with self-esteem. The first factor consisted of Self-Favorability, Favorability of Self-Distinctiveness, and Social Desirability. This factor appears to represent the evaluative aspects of self-esteem. A second cluster of scales included Repression-Sensitization, Private and Public Self-Consciousness, and to a lesser degree, Self-Esteem and Social Desirability. Signs of the loadings indicated that the factor was associated with Repression, low public self-consciousness, low private self-consciousness, high self-esteem, and high social desirability scores. This clustering of personality scales represents the degree to which people think about themselves in an evaluative manner. In particular, it suggests that people higher in self-esteem spend less time thinking about themselves. This factor appears to represent a cognitive aspect of self-esteem.

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Table 1

Interinventory Correlations

	1	2	3	4	5	6	7	8	9	10
1. Repr'n-Sensit'n										
2. Soc'l Desirab'y										
3. Locus of Control										
4. Priv Self-C'ness										
5. Publ Self-C'ness										
6. Social Anxiety										
7. Self-Monitoring										
8. Dogmatism										
9. Beck Depression										
10. Self-Est (R'berg)										
11. Self-Est (J & F)										

$r_p < .05$ ; N = 41 except for correlations involving measure #11, for which N = 19; Decimal points omitted.

Table 2

Correlations Between Derived Measures and Personality Scales

	<u>Scale</u>										
	1	2	3	4	5	6	7	8	9	10	11
Self-Dist'ness											
Fav of Self-Dist'ness											
Self Fav'bility											
Self Judg Lat'cy											
Rec. Acc. (seen)											
Rec. Acc. (foil)											

$r_p < .05$ ; N = 41 except for correlations involving measure #11, for which N = 19; Decimal points omitted.

Table 3

Intercorrelations Among Derived Measures

	1	2	3	4	5
1. Self Dist'ness					
2. Fav. of Self Dist'ness	.86*				
3. Self Fav'bility	.44*	.62*			
4. Self Judg Lat'cy	-.20	-.09	.02		
5. Rec. Acc. (Seen)	.11	.11	.08	.05	
6. Rec. Acc. (Foil)	-.21	-.08	.12	.10	-.07

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Notes: \*p < .05; Decimal points omitted.