Trait actualization and self-reference effects

JOHN H. MUELLER

University of Calgary, Calgary, Alberta, Canada

and

TIM R. GROVE

Adams State College of Colorado, Alamosa, Colorado

Subjects made self-reference judgments about the same trait adjectives from two perspectives, once in terms of the *real* self and once in terms of the *ideal* self. Traits could then be partitioned into four categories: those descriptive of both real- and ideal-self concepts, descriptive of real self only (not in the ideal-self concept), descriptive of ideal self only (not in the real-self concept), and those in neither the real- nor the ideal-self concept. Unactualized traits (real only or ideal only) took more time for self-descriptiveness decisions than did actualized (both) traits. Ideal-self decisions were made faster in general than were real-self decisions, for both actualized and unactualized traits. Traits judged to be descriptive of the real self (both or real only) were recalled better than those not descriptive of real self (ideal only and neither); in particular, subjects were best at remembering undesirable features of the real self and desirable features of the ideal self.

Deciding that an adjective describes oneself generally yields better retention of that adjective than would be the case for making a synonym judgment, and self-reference decisions are generally made more quickly than other decisions (see, e.g., Greenwald & Pratkanis, 1984, and Rogers, Kuiper, & Kirker, 1977). The generality of self-reference effects (i.e., faster decisions and/or better retention) has been used to make inferences about the structure of the self concept. For example, Derry and Kuiper (1981) argued that if the self concept is distorted so that certain information is missing, then self-referencing that material will not be effective. This content-specificity hypothesis was supported when depressed subjects showed self-reference benefits for depressed-content adjectives (e.g., *bleak*, *gloomy*), but not for non-depressed-content adjectives (e.g., *energetic*, *amiable*).

In the present research, we used the self-reference paradigm to study traits that constitute the subject's *ideal* self. Most previous work (e.g., Higgins, 1987; Markus & Nurius, 1986; Ogilvie, 1987) has been concerned with the motivational value of such an ideal, as it guides present and future activities. That perspective thus aims at the impact of affect that is generated as progress either occurs or does not occur toward that ideal or goal (see, e.g., Nahinsky, 1958). However, our interest is in the information processing value of the ideal self as a construct or schema. In one recent study, traits judged for "I am" (real self) and other traits judged for "I would like to be" (ideal self) were recalled equally well, and both were

recalled better than items involved in synonym or length decisions (Grove & Mueller, 1988).¹

Strictly speaking, this might seem at odds with the content-specificity view, because at least some ideal-self traits are not in the real self. However, a number of studies (e.g., Bower & Gilligan, 1979) have shown that decisions about familiar or well-known others can produce processing benefits comparable to self-reference, presumably because familiar others involve well-developed schemas as well. Therefore, processing benefits can be expected if the ideal self is a well-integrated cognitive structure, whether the content is actually a part of the real-self concept or not.

The present study consisted of an effort to identify just what traits might be in the real- and ideal-self concepts alone, as opposed to being desired of the ideal-self and also true of the real-self, and to determine how those only in the ideal-self concept affect the encoding and retrieval of experiences. This is of concern because disparities between the real and ideal self, rather than real-self content per se, have been emphasized by various theorists. We adapted a procedure that has been useful in identifying trait distinctiveness (Mueller, Ross, & Heesacker, 1984). Some traits seem to be more general in that they are true of a number of people as well as a given person (i.e., shared), whereas other traits are more specific to that one person (unshared). When subjects are required to judge each adjective twice, once for self-descriptiveness, and then again for other-descriptiveness, traits can be classified as descriptive of (1) both self and others, (2) self but not others (self only), (3) others but not self (other only), or (4) neither. This classification potentially yields different results than can be obtained by merely asking subjects how much a trait characterizes them, because a trait that may be quite salient (e.g., friendly) can still be

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one that the person shares with many other people (cf. Mueller, Thompson, & Dugan, 1986).²

In the present experiment, we applied this double-judgment task to two targets, the real self and the ideal self, so that some traits would be judged to be in one of the following: (1) both the real- and the ideal-self concepts, (2) the real self, (3) the ideal self, and (4) neither the real- nor the ideal-self concepts. In this framework, unactualized traits (i.e., those that are real only or ideal only) may be somewhat more distinctive than those that are actualized (both). Furthermore, different affective content may be associated with ideal-only traits and real-only traits (the former being desirable but unachieved, whereas the latter are probably undesired but true), and the substantive differences in affect may alter self-reference benefits. We sought to determine whether actualized traits differed from unactualized traits in speed of processing or retention, and to what extent these differences vary with self-esteem.

METHOD

Subjects

The subjects were 98 students (65 women) enrolled in introductory psychology courses, participating for extra credit in their course.

Materials

There were 40 words for each of three levels of social desirability—*likeable* (e.g., *cooperative*, *friendly*), *neutral* (e.g., *methodical*, *withdrawn*), and *unlikeable* (e.g., *cruel*, *selfish*), with meaningfulness level equated for the three subsets (Anderson, 1968).

Procedure

The rating phase involved a self-descriptiveness judgment for each adjective from two perspectives, once in terms of real self and once for ideal self. The 120 adjectives were randomly ordered for each subject, and they were presented one at a time on a video monitor controlled by a microcomputer, accompanied by one of two questions: "Are you actually" or "Would you like to be." Subjects indicated "yes" or "no" by pressing a key on the keyboard. The subjects were instructed to answer rapidly, on the basis of a first impression. For half of the subjects, all 120 words were rated for the real self first and then all were rated again for the ideal self, whereas for the other subjects the order was reversed. Following the second rating task, there was an unannounced free recall test.

The next phase of the experiment was the "Self-Consciousness Questionnaire" (Fenigstein et al., 1975). This instrument has three subscales that provide estimates of private self-consciousness (proneness to examine motives, moods, etc.), public self-consciousness (monitoring of appearance to others), and social anxiety (arousal in the presence of others). Higher levels of private self-consciousness sometimes are associated with increased self-reference effects.

This was followed by the "Need for Cognition Scale" (Cacioppo, Petty, & Kao, 1984). This questionnaire assesses the extent to which an individual engages in and enjoys effortful cognitive activity (e.g., "I really enjoy a task that involves coming up with new solutions to problems"). This dimension has not been examined very often in the self-reference domain, but it seems of potential interest as a general measure of reflection.

The final phase of the experiment was the Coopersmith (1967) "Self-Esteem Inventory," which consists of 58 statements such as "I'm pretty sure of myself," "I can usually take care of myself," and so forth. This measure seems likely to be critical with regard to mismatches between the content of the real- and ideal-self concepts, and this was the attribute of greatest interest.

RESULTS

The primary data are summarized in Table 1, by real-ideal subtype and trait desirability. The *both* items are those for which the subject said "yes" to both the real- and the ideal-self questions, the *real only* items are those for which the subject said "yes" to the real-self judgment and "no" to the ideal-self judgment, the *ideal only* items are those for which the subject said "no" to the real-self judgment and "yes" to the ideal-self judgment, and the *neither* items are those for which the subject said "no" to both targets. The data were initially analyzed in $2 \times 2 \times 3$ analyses of variance, for real self (yes, no) $\times$ ideal self (yes, no) $\times$ likeability, all three factors being within subjects. In addition, the dependent variable in each of the cells in Table 1 was correlated with each of the five individual differences measures, with significant ($p < .05$) relationships indicated in the table.

Endorsements

Predictably the pattern for trait desirability showed that likeable items were judged as "I am" and "I want to be" (both) or at least as "I want to be" (ideal only), whereas the unlikeable items were "not me" and/or "not the way I want to be." The endorsement data will be examined further in conjunction with self-esteem below.

Latencies: Real-Self as Target

Overall, there was a real-self main effect, since decisions about traits descriptive of the real self (i.e., both and real only combined, $M = 1,512$ msec) were made

Table 1
Endorsement Pattern, Decision Latencies (in Milliseconds), and Percent Recall, by Trait Distinctiveness and Trait Likeability

Desirability Level	Both	Real Only	Ideal Only	Neither
Endorsements				
Likeable	35.2 ^{c,D,E}	0.5	3.9 ^{C,d,e}	0.4
Middle	10.9 ^{A,D}	8.5 ^{C,d,e}	3.4 ^{C,e}	17.1 ^{a,c,D,E}
Unlikeable	1.1	5.8 ^{C,d,e}	0.7 ^C	32.4 ^{a,c,E}
Real-Self Latency				
Likeable	1,165 ^{d,e}	1,322	1,921 ^d	1,695
Middle	1,553 ^{b,d}	1,804	1,979	1,618 ^c
Unlikeable	1,294	1,705 ^d	1,430	1,273 ^{A,C,e}
Ideal-Self Latency				
Likeable	959 ^d	1,150 ^b	1,035	1,555
Middle	1,489	1,418 ^b	1,748 ^b	1,419 ^{d,e}
Unlikeable	1,779 ^c	1,221	1,446	1,066
Percent Recall				
Likeable	23.9	20.9 ^{A,B}	28.8 ^D	35.7 ^c
Middle	20.5	20.9	18.9	17.5
Unlikeable	28.9	31.6	17.3	20.3

Note—Significant ($p < .05$) correlations are indicated by superscripts (positive correlations are in uppercase, negative in lowercase) for (a) private self-consciousness, (b) public self-consciousness, (c) social anxiety, (d) need for cognition, (e) self-esteem.

more rapidly than decisions about nondescriptive traits (ideal only and both combined, $M = 1,661$ msec) [$F(1,48) = 11.84, p < .002$].

The ideal-self main effect was not significant ($F < 1$), but there was a significant interaction for real self $\times$ ideal self (pooled over likeability) [$F(1,48) = 59.68, p < .0001$], as follows: the both and neither traits were answered more rapidly ($M_s = 1,346$ and $1,477$ msec, respectively) than the real-only or ideal-only traits ($M_s = 1,697$ and $1,861$ msec). In other words, singularly represented traits of either sort were answered more slowly than were actualized traits.

The likeability main effect was significant [$F(2,96) = 23.77, p < .0001$], with the intermediate traits taking more time ($M = 1,733$ msec) than either the likeable or the unlikeable traits ($M_s = 1,506$ and $1,441$ msec). There was a significant real self $\times$ likeability interaction [$F(2,96) = 61.69, p < .0001$]; this pattern was apparent only for the traits answered "yes," because subjects were especially slow to answer "no" to likeable traits.

Latencies: Ideal Self as Target

The judgments of ideal self revealed no main effects for either real-self or ideal-self outcomes, nor any interaction of real self $\times$ ideal self [$F_s(1,48) < 3.03$]. The likeability main effect was significant [$F(2,96) = 34.89, p < .0001$]. Trait desirability effects again showed ideal-self judgments to be slower for the intermediate traits ($M = 1,514$ msec) than for the likeable and unlikeable traits ($M_s = 1,080$ and $1,293$ msec). Both the real self $\times$ likeability and ideal self $\times$ likeability interactions were significant [$F_s(2,96) = 10.63$ and $8.31, p_s < .001$]. In this case, it was answering "yes" for either real or ideal self for unlikeable traits that disrupted the likeability pattern just described. It can also be noted that for 10 of the 12 cells the decision speeds for the ideal-self target was faster than for the real-self target.

Probability of Recall

The recall data indicated three significant effects. First, the real-self main effect was significant [$F(1,48) = 3.95, p < .05$]; traits judged to be descriptive of the actual self (both and real only combined) were recalled better than those judged not descriptive (ideal only and neither combined) of the actual self ($M_s = 24.4\%$ vs. 21.6% , respectively). The ideal-self main effect was not significant, nor was the real self $\times$ ideal self interaction ($F_s < 1$). There was no significant difference in the recall of real-only and both traits overall ($M_s = 25.3\%$ and 23.5%), but real-only traits seemed to be better recalled than ideal-only traits ($M_s = 25.3\%$ vs. 22.5% , $p < .05$).

The likeability main effect was significant overall [$F(2,96) = 8.24, p < .001$], with likeable and unlikeable traits being remembered better than the intermediate traits ($M_s = 26.6\%$, 25.2% , and 19.4% , respectively). Furthermore, there was a significant real self $\times$ likeability interaction [$F(2,96) = 10.57$]. For the both and real-only subtypes ("yes" answers to the "I am" question) subjects recalled more of the unlikeable traits, relative to the

likeable and neutral traits ($M_s = 23.2\%$, 20.7% , and 30.7% , for likeable, neutral, and unlikeable items, respectively), whereas, for the ideal-only and neither subtypes subjects recalled likeable traits better than unlikeable and neutral traits ($M_s = 30.5\%$, 18.1% and 19.5%). In other words, subjects were best able to remember undesirable aspects of the way they really were and desirable aspects of the way they were not.

Individual Differences Analyses

The intercorrelations among the individual differences measures are shown in Table 2. Although the "Self-Consciousness Questionnaire" and "Need for Cognition" scores seem minimally related (see also Mueller, Haupt, & Grove, 1988, and Mueller & Johnson, 1990), self-esteem was inversely related to private self-consciousness and positively related to need for cognition. We will focus attention on self-esteem because of its primary interest, and because self-consciousness and need for cognition produced no apparent pattern of results (the isolated effects are noted in Table 1).

Subjects scoring 44 or above were considered high ($M = 46.3, SD = 2.3$) in self-esteem, and those scoring 40 or below were classified as low ($M = 31.6, SD = 6.9$). The four subtypes of items formed by the "yes"/"no" answers to the real- and ideal-self decisions were subjected to separate 2×3 analyses of variance, in a questionnaire (high, low) $\times$ likeability layout. Only the endorsement pattern will be reported, because no recall or latency effects of interest were noted involving self-esteem.

Overall, high self-esteem subjects classified more items in the both category than did low scorers ($M_s = 16.6$ vs. 14.8), fewer items in the ideal-only category ($M_s = 1.9$ vs. 3.5), fewer in the real-only category ($M_s = 3.5$ vs. 6.5), and more in the neither category ($M_s = 17.9$ vs. 15.2). All of these self-esteem main effects were significant [$F_s(1,75) > 12.75$]. Figure 1 shows clearly that high self-esteem was associated with judgments to the effect that "I already am the way I want to be."

The self-esteem endorsement pattern varied with trait likeability. In the case of the real-only traits, there was a significant interaction between esteem and likeability [$F(2,150) = 12.35, p < .0001$]; the tendency for high self-esteem subjects to generate fewer traits of this type was greatest for unlikeable and intermediate traits. There also was an esteem $\times$ likeability interaction for ideal-only traits [$F(2,150) = 14.92, p < .0001$]; the tendency for

Table 2
Correlations Among the Individual Differences Measures

	Public Self- Consciousness	Social Anxiety	Need for Cognition	Self- Esteem
Private self-cons.	.38*	.13	.04	-.24*
Public self-cons.		.15	-.17	-.16
Social anxiety			-.24*	-.42*
Need for cognition				.45*

* $p < .05$.

Figure 1. Number of endorsements by real-ideal subtype as a function of level of self-esteem, collapsed over trait likeability.

high self-esteem subjects to generate fewer such traits was most clear for likeable traits. Low self-esteem subjects clearly saw unlikeable traits as real only (actualized) to a disproportionate extent, and likeable traits as ideal only (unactualized), whereas high self-esteem subjects tended to see likeable traits as actualized (both).

DISCUSSION

This experiment was conducted (1) to examine a way in which traits could be identified as part of the ideal-self concept, whether they were in the real-self concept or not, (2) to determine how the ideal- and real-self concepts affect speed of access and memorability, and (3) to determine whether various individual differences were more important to the processing of information for one self concept than for the other.

Clearly, traits could be identified as to whether they were present in both the real- and the ideal-self concepts or just one or the other. "Actualized" traits, those in both the real- and the ideal-self concepts, tended to be the more socially desirable traits, and these led to faster (real-self) decisions than did traits that were only in the real-self or the ideal-self concepts alone. However, these actualized traits did not lead to superior recall relative to real-only or ideal-only traits in general. For the actualized and real-only traits, it is clear that unlikeable traits were recalled better than likeable or neutral features, whereas for the ideal-only traits, likeable features were recalled better than the neutral and unlikeable traits (cf. Table 1). In fact, considering the extreme effects of social desirability, it may be useful to examine just the intermediate likeability traits. In this case, it was quite clear (Table 1) that actualized neutral traits led to faster decisions relative to the singularly represented neutral real-only and ideal-only traits. For intermediate likeability, actualized traits (20.5%) show no recall advantage relative to real-only traits (20.9%), and in fact they were recalled significantly less than real-only traits (18.9%).

The two subtypes of singular traits, real only and ideal only, showed understandable and opposite likeability patterns in terms of endorsement, but there seemed to be no consistent likeability pattern in decision speeds for real-only versus ideal-only traits. The real-only traits were recalled better overall than were the ideal-only traits, but the likeability effect was clear as subjects were best able to recall unlikeable real-only traits and likeable ideal-only traits.

Finally, in terms of the individual differences measures, three generalizations can be offered (see Table 1). First, self-esteem effects were clear in the endorsement pattern, but not for decision speed or recall. Second, some self-consciousness differences (private and public) were apparent for decision speed, but not for endorsement patterns or recall; and third, need for cognition effects were minimal.

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NOTES

1. We are aware of another study in which the ideal self was used in an orienting task, but because the stimuli were facial photographs, it is hard to integrate this study into the large body of self-reference work done with trait adjectives (Mueller, Nicodemus, & Ross, 1981). It is worth noting, however, that face memory for real-self and ideal-self tasks was equivalent, in accord with Grove and Mueller (1988).

2. This line of reasoning is well known in terms of physical features, where being bald and wearing glasses, for example, may be actual features of a person that are nevertheless nondistinctive in many respects (e.g., eyewitness identification) because they are features shared with many other people.

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