Aesthetic preference and resemblance of viewer's personality to paintings

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We investigated the hypothesis that the degree to which a viewer likes a painting is related to the similarity between the attributes the viewer perceives in the painting and the attributes the viewer perceives in his or her own personality. This relation may reveal itself not only in terms of resemblance to the person's image of real self, but also in terms of resemblance to ideal self, the self the person would like to be. To test these hypotheses, 32 subjects (1) rated how much they liked each of 12 paintings, and (2) rated the same paintings, their "real" selves, and their "ideal" selves on identical sets of bipolar adjectives. The results showed a clear relation between liking and similarity to ideal self, and a weaker, although also reliable, relation between liking and similarity to real self.

Individuals differ in their preferences for works of art. The notion that personality characteristics may bear upon these differences in aesthetic preference not only carries some intuitive credibility, but also has received empirical support. Several studies (e.g., Burt, 1939; Juhasz & Paxson, 1978; Knapp, 1964; Tobacyk, Bailey, & Myers, 1979) suggest that individuals with particular personality "types" prefer characteristic genres or subject matters in paintings. Several of the relationships demonstrated in these studies appear to be self-referential; that is, subjects seem to like those paintings with characteristics that in some way resemble their own personalities. We will use the expression "self-reference" to refer to the hypothesis that people tend to prefer paintings that have qualities similar to those qualities perceived in their own personality. Although the studies mentioned above either implicitly or explicitly addressed this hypothesis, their design required the experimenter or an expert to define and designate the salient qualities of the paintings and/or personality (e.g., Juhasz & Paxson judged cubist works to be "highly controlled"; Knapp's subjects were labeled as "Dionysian," "Pythagorean," or "Apollonian" personality types). Untested was the question whether—or how—the subjects themselves perceived the qualities of the paintings.

We designed the study reported here to investigate the relationship between personality and aesthetic preference without requiring the experimenter to label characteristics of either paintings or personalities. We propose that the extent to which a viewer likes a given painting correlates with the extent to which the painting is seen by the viewer to embody certain qualities

that the viewer believes himself or herself to possess: The greater the similarity (implicitly) perceived, the more the painting is liked.

A second possibility exists, one that appears not hitherto investigated: People may tend to judge a painting in regard to "ideal" rather than "real" (actual) self and thus to admire the painting to the extent that it is seen to embody those attributes held as a personal goal. Therefore, we propose that the greater the similarity between perception of a given painting and the ideal self, the more the painting will be liked. We designed this experiment to test directly the role of self-reference in preference for paintings: Each subject rated both his/her personality and a set of paintings with respect to descriptive qualities, thus providing a cognitively/emotionally immediate measure of similarity (without asking subjects to judge similarity directly) between perceived qualities of paintings and corresponding qualities of real and ideal selves.

METHOD

Subjects

Thirty-two undergraduate students (14 women and 18 men) participated as part of a course requirement. In order to avoid any effects of knowledge about the paintings and artists, eligibility was restricted to those who had taken no more than one course in art history.

Materials

Twelve color slide reproductions of paintings constituted stimulus materials. They were: *A Portrait of Paul Revere* by John S. Copley; *Stoke-by-Nayland* by John Constable; *The Annunciation* by the Master of Moulins; *The Bathers* by William A. Bouguereau; *The Obelisk* by Hubert Robert; *Dancing Girl* by Paul Klee; *Genuflexion of the Bishop* by Jean Dubuffet; *Annette, 1962* by Alberto Giacometti; *The Golden Wall* by Hans Hofmann; *The Waterfall* by Henri Rousseau; *In the Third Sleep* by Kay Sage; and *Still Life; Fruits and Flowers* by Juan van der Hamen.

In choosing the paintings, we attempted to obtain a representative sample of art from the 15th to the 20th centuries, in-

cluding abstract, "primitive," surreal, and traditional representative styles, portraiture, and nudes. Again, lest knowledge about and familiarity with the paintings and artists affect the judgments, we chose relatively unfamiliar paintings. Artists' signatures were removed from the slides, which were projected onto a smooth, white surface. The sizes, brightnesses, and saturations of the reproductions were, of course, presumably not identical to those of the originals; the originals were not being rated, however, and we assumed that the subjects were responding to the slide presentations as pieces of art in themselves.

The questionnaire on the paintings contained 11 bipolar scales, each scale composed of a pair of words or phrases. One pole (an adjective or phrase) was labeled "1," the other "7." The 11 pairs of adjectives (or adjectival phrases) were culled from lists of personality attributes presented by Allport (1937), Cattell (1946, 1965), Guilford (1959), Osgood, Suci, and Tannenbaum (1957), and Thurstone (1949, 1951). We appropriated the most frequently appearing personality attributes and avoided those that appeared on few lists or that could not be rendered applicable to both paintings and personality without profound modification. The 11 pairs were: overly self-confident/ under self-confident; easy to comprehend/difficult to comprehend; aloof/warm; joyous/sad; agitated/placid; inhibited/unrestrained; sentimental/hard; gregarious/solitary; practical/imaginative; dominating/meek; and childish/mature. In addition to these 11 pairs, another, denoted "little liking/great liking," appeared on the painting questionnaire.

For self-rating, the questionnaire was divided according to "real" self ("myself") and "ideal" self ("the person I'd like to be"). This questionnaire contained the same 11 bipolar scales of adjectives, but omitted the pair denoting liking. Several different forms of both questionnaires were used, varying the order of adjectives to minimize sequential biases.

Procedure

The subjects were run in groups of four to seven. They were told that the study concerned individual differences in art preference. The subjects received the painting questionnaire with written instructions to rate, on a scale from 1-7, each painting on each bipolar scale. The experimenter projected the slides one at a time, and the subjects proceeded to rate each painting.

Once they had finished rating the paintings, the subjects received the second questionnaire, together with written instructions directing them to use the same procedure to rate their "real" selves and their realistic aspirations for their "ideal" selves. Although they had known that they were to rate themselves in some fashion, only at this moment did the subjects learn that the ratings of self would employ the same adjectives used with the paintings.

In order to obtain a measure of reliability, 15 of the subjects returned approximately 1 month later, and the procedure described above was repeated. Eight men and seven women participated in this second session, for which they were paid.

Order of presentation of the slides was varied from group to group in both sessions. (Varying order is critical; Lindauer & Dintruff, 1975, for example, demonstrated substantial effects of order of presentation on aesthetic preference. They found that subjects reported greater liking for a piece of traditional art if it followed another piece of traditional art. Subjects reported less liking for an abstract work if it followed traditional art than if that abstract work followed another abstract work.) Within a testing group, we varied the order of adjectives by giving subjects different forms of each questionnaire; moreover, for each subject, the order of adjectives differed on the painting questionnaire and self-questionnaire within a single run, and on the two separate runs.

RESULTS

To assess the relation between the degree to which the subjects liked the paintings and the similarity of per-

ceived self to paintings, we performed correlations separately for each subject, using data from the 12 paintings he or she had rated. We first calculated correlations between the degree to which the subjects had liked the paintings and the similarity of perceived actual self to the paintings. The former score—liking—was a straightforward matter, consisting of the subject's rating of the painting on the 7-point scale. The latter score—similarity—was obtained for each adjective by taking the absolute size of the difference between the subject's rating of the painting and the subject's rating of real self. Such a measure—of difference or dissimilarity—was then transformed into a measure of similarity by subtracting the dissimilarity score from 7. This inversion was performed as a matter of convenience, so that the predicted correlations would be positive rather than negative. (The absolute sizes of the correlations are not affected by the inverse transformation.) For each painting rated by a given subject, the similarity scores were summed across adjectives and the total score was correlated with the subject's reported liking for the painting. The correlation was thus calculated using 12 pairs of scores; this process yielded 32 correlations, one for each subject.

There proved to be a small, but statistically reliable, relation between the subjects' liking for the paintings and the "perceived" resemblance of paintings to real self [mean $r = .12$, $t(31) = 2.07$, $p = .04$]. Following the same analytic procedure for ratings of ideal self rather than real self, a highly reliable and stronger relation appeared [mean $r = .37$, $t(31) = 5.51$, $p < .0001$].

The statistical manipulations used to arrive at these values are based upon a "city block" model, in which overall dissimilarity equals the sum of the absolute sizes of the component differences. Similarity can also be measured using a "Pythagorean" model, taking the square root of the summed squares of the component differences. Correlations between preference and similarity based on the "Pythagorean" model emerged as somewhat stronger than those of the "city block" model [for real self, mean $r = -.16$, $t(31) = 2.62$, $p = .01$; and for ideal self, mean $r = -.38$, $t(31) = 5.69$, $p < .0001$]. The correlations are negative here because the dissimilarity scores cannot be inversely transformed as they were in the "city block" model.

Test-retest reliabilities over the two sessions were respectable [$r(178) = .71$, $p < .0001$, for ratings of liking; $r(163) = .68$, $p < .0001$, for real self; and $r(163) = .76$, $p < .0001$, for ideal self]. Particularly interesting is the reliability of individual correlations between liking of paintings and similarity of paintings to self: With regard to ideal self, individual subjects were consistent [$r(28) = .76$, $p < .0001$]; for real self, however, the (typically small) relationship between liking and similarity itself fluctuated considerably more over time [$r(28) = .35$, $p = .06$].

DISCUSSION

The data support the general notion that aesthetic preference

is in part self-referential, but only, or at least primarily, if reference is to ideal self. In other words, the subjects liked a painting to the extent that the painting was seen to share those qualities that constituted the subjects' ideal. However, although the correlations were highly reliable, they were not extraordinarily strong; an average correlation of .38 accounts for only 15% of the total variance.

The postulated connection between the degree of liking for a painting and its resemblance to real self was supported as well, although the correlation is so small as to be of little predictive value. Given that the studies mentioned above have strongly implied such a relationship, it is not clear why similarity to real self did not predict liking very well. In Knapp's (1964) study, subjects who preferred abstract expressionist art tended to be uninhibited, emotional, and imaginative ("Dionysian"); those most attracted to geometric paintings tended to be restrained, intellectual, and systematic ("Pythagorean"); and those who preferred realistic works manifested attributes of practicality and simplicity ("Apollonian"). Juhasz and Paxson (1978) showed that subjects who posited an internal locus of control preferred cubism (a genre that the experimenters considered "highly controlled"), whereas subjects who posited an external locus of control preferred surrealism ("more uncontrolled"). Burt's (1939) study revealed that emotionally stable people preferred paintings depicting calm subjects; emotionally unstable people preferred ones depicting dramatic subjects. Finally, Tobacyk et al. (1979) found that, for example, "reserved, detached, and cool" subjects preferred "cool, calm, tensionless" paintings, and that "imaginative" subjects preferred abstract (as opposed to representational) art. These experimenters apparently did not obtain a measure of ideal self; if they had, perhaps they would have found an even stronger correlation between preference and similarity to ideal.[1]

Reexamination of the data subject by subject and adjective by adjective revealed a tendency that could have held the correlations between liking and self to relatively low levels. The subjects generally showed large correlations across paintings on only one or two adjectives, with weaker correlations on the other adjectives. Perhaps in the formation of aesthetic preference, only one or two dimensions are "important" to each subject. If we take each subject's single highest correlation between liking and ideal self and average across subjects, we arrive at an absolute value of r = .62 (compared with .37 or .38 when we base each subject's correlation on all adjectives). Although the value .62 is probably somewhat an overestimate, its size nevertheless suggests that a small number of adjectives accounts for much of the self-referential relationship. A better method to test this possibility would be to determine in advance the adjectival dimension that is "important" to each subject and only then to calculate a correlation between liking for a painting and the similarity of that painting to the subject's ideal self.[2]

Moreover, one could ask whether viewers themselves actually acknowledge the similarity between perceived qualities of paintings and of self. In the present study, we derived—in fact, we defined— similarity scores from the subjects' judgments of the paintings and of their selves. Whether the subjects actually perceived these similarities as we defined them, we do not know. Of course, it is perfectly possible that an implicit similarity, of which the viewer is not aware, can influence aesthetic preference.

In sum, the present study indicates that a subject's aesthetic preference is positively related to the similarity between qualities the viewer sees in the painting and those the viewer sees in his or her ideal self; the direction of causality is, of course, strictly a matter of conjecture. From the observation that only one or two adjectival dimensions are "important" to each subject, it may prove profitable in the future to attempt to locate the particular dimensions that matter to each person's formation of aesthetic preference.

REFERENCES

ALLPORT, G. W. *Personality: A psychological interpretation.* New York: Holt, 1937.

BURT, C. The factorial analysis of emotional traits. *Character and Personality*, 1939, 7, 285-300.

CATTELL, R. B. *Description and measurement of personality.* New York: World, 1946.

CATTELL, R. B. *The scientific analysis of personality.* Chicago: Adeline, 1965.

GUILFORD, J. P. *Personality.* New York: McGraw-Hill, 1959.

JUHASZ, J., & PAXSON, L. Personality and preference for painting style. *Perceptual and Motor Skills*, 1978, 40, 347-349.

KNAPP, R. H. An experimental study of a triadic hypothesis concerning the sources of aesthetic imagery. *Journal of Projective Techniques and Personality Assessment*, 1964, 28, 49-54.

LINDAUER, M., & DINTRUFF, D. Contrast effects in response to art. *Perceptual and Motor Skills*, 1975, 40, 155-165.

OSGOOD, C. E., SUCI, G. J., & TANNENBAUM, P. H. *The measurement of meaning.* Urbana: University of Illinois Press, 1957.

THURSTONE, L. L. *Thurstone temperament schedule.* Chicago: Science Research Associates, 1949.

THURSTONE, L. L. The dimensions of temperament. *Psychometrika*, 1951, 16, 11-20.

TOBACYK, J., BAILEY, L., & MEYERS, H. Preference for paintings and personality traits. *Psychological Reports*, 1979, 45, 787-793.

NOTES

1. These two points give rise to the question of whether ideal self is the crucial factor in self-reference-mediated preference; perhaps the correlation with real self actually reflects the degree to which real self is similar to ideal self. To assess this possibility for each subject, we obtained two values: (1) the difference between the correlation of liking with real self and liking with ideal self, and (2) the correlation between the judgments of the two selves (eliminating values above .80, since these necessarily and spuriously raise the correlation). The correlation over subjects between these two derived values was negligible. Thus, there seems to be little support for the view that the correlation between real and ideal selves accounts for the correlation between liking and real self.

2. Of the bipolar adjectives used in this experiment, no single adjective could be isolated as an effective predictor of liking. Taking correlations separately for each subject and for each adjective and averaging across subjects, the dimension "childish/mature" proved to be the strongest [mean r = .27, t(31) = 3.55, p = .002, for ideal self; but mean r = .04, t(31) = .72, p = .52, for real self]. Given such low average correlations for single adjectives, it seems unlikely that refinement of the adjective list will yield a single, consistently good predictor of liking, but, rather, that the subjects vary idiosyncratically in the dimensions that matter to "self-reference."