

1956

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Recommended Citation

Krevelen, Alice Van (1956) "Relationships Between Number of Verbal Associations to Value Words and Subjective Ratings of Values," *Proceedings of the Iowa Academy of Science*, 63(1), 576-580.

Available at: <https://scholarworks.uni.edu/pias/vol63/iss1/61>

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Relationships Between Number of Verbal Associations to Value Words and Subjective Ratings of Values

By ALICE VAN KREVELEN

STATEMENT OF THE PROBLEM

This study attempts to demonstrate whether or not there is a relationship between Ss' rankings of statements descriptive of Spranger's values and the number of verbal associations made by the same Ss to nouns referring to these values.

Noble (2) has demonstrated that one may define the meaningfulness of a stimulus word in terms of the number of associations to this word written by Ss within a prescribed time. Bousfield and Samborski (1) using the written association method of Noble attempted to test the hypothesis that for individuals the relative strength of personal values should correlate positively with the extent of meaningfulness of words related to these values. To test this hypothesis they correlated two measures of the same values derived from the same group of Ss. These were (a) strengths of Spranger's values based on the Study of Values Scale of Allport, Vernon and Lindzey and (b) meaningfulness of words related to the Spranger values obtained by Noble's (2) method. Two of the six values investigated, religious and theoretical, showed significant correlations.

PROCEDURE

The present experiment attempted to test the same hypothesis but modified Bousfield and Samborski's procedure in an effort to control some factors which might have served to lower the correlations they obtained. Instead of correlating scores on the Allport-Vernon-Lindzey Study of Values scale with Ss associations to words relating to these same values, the first mentioned variable in the present study consisted of Ss rankings of verbal descriptions of the Spranger values. The second variable was similar to Bousfield and Samborski's being the meaningfulness of related words obtained by Noble's technique (2) of having Ss give written associations to nouns referring to the specific values.

Whereas Bousfield and Samborski had Ss associate to a total of 60 words or ten words for each of the six values, the present study used just five words for each value. These five were selected from Bousfield and Samborski's lists and were judged to be most

representative of the respective values (table 1). Bousfield and Samborski reported that for various reasons certain words on their list presented difficulties. All such words were omitted in the present study.

Table I
Value-Words

Aesthetic	Economic	Political	Religious	Theoretical	Social
art	business	leader	faith	laboratory	conversation
beauty	commerce	politics	deity	logic	friend
music	finance	victory	religion	science	kindness
poetry	income	government	prayer	learning	sociability
sculpture	economics	president	holiness	theory	generosity

The procedure followed in obtaining the word associations was the same as that used by Noble and Bousfield and Samborski. Fifty undergraduate students in psychology classes served as Ss. In one experimental session they gave written associative responses to the 30 value words. Subjects were instructed that they would be given key words and they were to write all the other words they could think of which the key words brought to mind. They were to repeat the key word mentally before each response. Illustrative examples and sample key words were given for preliminary practice.

Subjects were allowed one minute in which to write responses to each value word with an interval of 15 seconds between words. The words were printed in test booklet form with one word on each page and the order was randomized. In a class session one week later Ss were given sheets on which were written six statements descriptive of the dominant interests of Spranger's six types of men, essentially a condensation of the characterizations given in the manual for the Allport-Vernon-Lindzey Study of Values. Subjects were asked to rank these statements from one to six in terms of the importance they attributed to the particular value in their own lives, giving the rank of one to the value considered of greatest importance.

Using Bousfield and Samborski's procedure norms based on the responses of the 50 Ss were computed for each of the 30 value words. These norms were in terms of standard scores with a mean of 50 and a standard deviation of 10. In this way each S received a set of five standard scores for each of the six sets of value words. For each set of five standard scores the mean was computed to represent the composite meaningfulness of the corresponding value for each S. These mean standard scores were then ranked in order of their magnitude for each S. In this way there was obtained for each S a rank order of the composite meaningfulness scores on

value-related words and a subjective ranking of statements describing the same values.

When product-moment correlations were computed between descriptive statement rankings and average standard score ranks for the various values only one r was significant, that of .29 (table II) for the political value. Bousfield and Samborski found significant r 's of .39 for religious value and .37 for theoretical value.

Table II

Product-Moment Correlations Between Ranks of Composite-Meaningfulness Scores and Subjective Rankings of Descriptive Statements of Values

Value	r
aesthetic	.11
economic	.17
political	.27*
religious	.10
social	.06
theoretical	.18

*Significant at a level between .01 and .05
 $n=50$ d. f.=48

In an effort to test the null hypothesis that there was actually no difference in the number of associations given to words relating to values ranked differently several t tests of significance were run. A t value of 2.31 was obtained for the difference between composite meaningfulness ranks for words associated with the value S_s ranked one and the value they ranked six. This was significant at the .02 level (table III) and furnishes evidence that composite meaningfulness was significantly higher for nouns associated with the value ranked as one than for nouns associated with the value ranked as six. The t value for the difference between composite meaningfulness ranks for values rated two and six was 2.11 which is significant at the .03 level. Other differences were not significant although it will be seen by reference to table IV that except for a reversal between ranks one and two average standard scores ranks for related words increase as the value rankings increase.

Table III

Differences Between Composite Meaningfulness Scores for Respective Value Ratings

Meaningfulness Scores	M1	M2	Diff.	Sigma M diff.	t	p
For values ranked 1 and 6	3.02	3.69	.67	.29	2.31	.02
For values ranked 2 and 6	2.95	3.69	.74	.35	2.11	.03

$n = 50$ d. f. = 49

Table IV
 Relations Between Subjective Rankings of Values and Ranks of Responses to Related Words

Value Rank	Average Standard Score Rank (Composite Meaningfulness)
1	3.02
2	2.95
3	3.11
4	3.40
5	3.46
6	3.69

DISCUSSION

The apparent reversal of the average standard score ranks for the words relating to values rated one and two might be explained on the following basis. Since 35 out of 50 Ss ranked the statement descriptive of the social value as number one it is possible that this could represent a culturally influenced choice in that Ss gave the value they thought *should* be most important in their lives the rank of one rather than making a more realistic judgment.

Bousfield and Samborski did not analyze their data further than computing correlations between scores on the Study of Values scale and composite meaningfulness scores for related words. Although the present study was an attempt to clarify possible relationships between word meaningfulness and strength of values for individuals it does not seem to have achieved that particular result. It has failed to demonstrate that there is no relationship between word meaningfulness and strength of values. It has also failed in finding any more significant correlations between the two than Bousfield and Samborski did; in fact in the present study just one correlation proved to be significant and that does not correspond with either value for which Bousfield and Samborski found significant correlations.

However the present study did show that there was a significant difference in the number of responses to words relating to values that were ranked highest and those rated lowest by Ss and the difference was in a direction compatible with the hypothesis. Also the fact that the magnitude of average standard score ranks increases in proportion to strength of values as indicated by paragraph rankings may be evidence for a relationship that could be better demonstrated using different techniques.

SUMMARY AND CONCLUSIONS

When correlations were computed between frequency of Ss' responses to value-related stimulus words and subjective rankings of statements descriptive of the same Spranger values the political value was the only one for which a significant *r* was obtained.

When the *t* tests of significance was applied to frequency of responses to value-related stimulus words it was found that there was a significant difference in the number of responses given to words relating to values that were ranked as number one and number six and between those ranked as number two and those ranked as number six. Differences in composite meaningfulness scores (as measured by the word association method) between other value ranks were not significant. The magnitude of composite meaningfulness scores for related words (as measured by average standard score ranks) increased as Ss subjective ratings of the value increased with one exception that between ranks one and two.

It is concluded that some relationship does exist between meaningfulness of value-related words and individuals' subjective ratings of values. This area merits further investigation possibly using more valid estimates of the individuals' relative strength of values than either the descriptive statement ranking method or scores on the Study of Values Scale.

References

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