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IMPRESSION VALUE" VERBS: PRELIMINARY REPORT

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Summary.—18 words were selected from the list compiled by Dixon and Dixon (1964). It was hypothesized that 16 male and 20 female freshman Ss would verbalize fewer "bad" than "good" impression-value verbs when an equal number of each were available. Using the Grosser and Walsh (1966) method, each S individually viewed the stimuli presented on a screen. Immediate recall scores for female Ss did not support the hypothesis ($p > .90$), but for males, there was a trend toward greater recall of "bad" words ($p = .10$). Other trends similar to the Grosser and Walsh findings are discussed.

The psychoanalytic hypothesis that unpleasant experiences are more easily forgotten than pleasant ones and Thorndike's law of effect have provided the inspiration for numerous studies evaluating the relationship of affective and/or hedonic tone to memory since 1898 (Colgrove). For excellent summaries and evaluations of the research in this area see Creelman (1966), Gilbert (1938), and Rapaport (1961).

While the quantification of verbal materials for use as stimuli in these studies was attempted as early as 1921 (Smith), the scaling of stimuli along a uniform dimension has been largely ignored. Notable exceptions to this are the semantic differential (Osgood, *et al.*, 1957), the scaling of the intensity of hostile words reported by Buss (1961, pp. 120 ff.), Dixon and Dixon's (1964) scaling of the impression value of verbs, and the more recent work of Paivio and his associates (e.g., Paivio, *et al.*, 1968).

In a previous investigation (Grosser & Walsh, 1966), using the free-recall method, it was observed that male and female Ss responded quite differently when the stimuli were neutral and "sexually taboo" words. In the present study, the free-recall method was again used and stimuli were selected from the list compiled by Dixon and Dixon (1964). Their study provided a list of words which were scaled along a "good" versus "bad" impression-value dimension. Since Dixon and Dixon's Ss were in relatively high agreement concerning the stimulus properties of the verbal materials selected, it was hypothesized that both male and female Ss would verbalize fewer "bad" than "good" impression-value verbs when an equal number of both were available for selection.

¹The data were collected and presented to the faculty of Springfield College, Springfield, Massachusetts (Walsh, 1966) in partial fulfillment of the requirements for the degree, Master of Science. The author wishes to acknowledge and extend his gratitude to Sandra Woods, for her assistance in the collection of data, and to Robert L. Rhyne (Connecticut College, New London, Connecticut) for editorial and statistical suggestions.

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METHOD

Subjects

Ss were 16 male and 20 female freshman students selected at random from the freshman class roster at Springfield College. The mean age for men was 18.7, for women, 18.8.

Apparatus

The stimuli were selected from the extreme ranks of the word list as reported by Dixon and Dixon (1964, pp. 162 ff.). Selection was based on the relative agreement between male and female Ss regarding the position of each word along the "good impression value-bad impression value" dimension (for a more complete discussion of the selection procedure see Walsh, 1966). The words ranged in length from 4 to 11 letters (see Table 1).

The words were printed on cards, photographed, and mounted in standard 2-in. \times 2-in. slide cases and enclosed in glass. When projected on the screen in the darkened experimental room in front of Ss, they appeared as white figures on a black background. A Kodak Carousel, Model 800, slide projector was used

TABLE 1
FACTUAL INFORMATION PERTAINING TO STIMULI

Word	Word	Code	Letter Count*	Impression Value†	Presentation Order	
					A	B
Lied	L		4	Bad	1	18
Loved		C	5	Good	2	17
Robbed	M		6	Bad	3	16
Forgave		D	7	Good	4	15
Bullied	N		7	Bad	5	14
Helped		E	6	Good	6	13
Cheated	O		7	Bad	7	12
Mastered		F	8	Good	8	11
Molested	P		8	Bad	9	10
Trusted		G	7	Good	10	9
Corrupted	Q		9	Bad	11	8
Honored		H	7	Good	12	7
Betrayed	R		8	Bad	13	6
Comforted		I	9	Good	14	5
Slandered	S		9	Bad	15	4
Respected		J	9	Good	16	3
Persecuted	T		10	Bad	17	2
Appreciated		K	11	Good	18	1

*Number of letters in a word. Presentation A began with the shortest word, Lied, and ended with the longest word, Appreciated. Presentation B was the opposite of Presentation A.

†The impression value of the verbs was determined by their position in the Dixon and Dixon (1964, pp. 162f.) male-female ranks. Note the alternation of the presentation orders.

to present the slides. The screen on which the images were presented was located at a distance of 9 ft. from the projector's aperture and *S*'s eyes when he was seated.

Procedure

One week prior to testing, *Ss* received a letter stating the time and location of the experiment. All *Ss* were scheduled on the same day at 5-min. intervals between the hours of 5:00 P. M. and 10:00 P. M. Upon arrival, they were directed individually by an assistant to the experimental room and seated facing the projection screen. A standardized instruction format was used, viz.,

You are going to be shown a list of words. I would like you to study each word carefully and at the end of the presentation, I would like you to repeat as many of the words as you can remember.

Each word was presented for a standardized 4-sec. flash with a 1-sec. interstimulus interval. All *Ss* were exposed to the same experimental conditions. Half of the *Ss* (8 males and 10 females) received presentation order A, while the other half received presentation order B (see Table 1). Upon leaving, each *S* was given \$0.25 by the assistant.

RESULTS AND DISCUSSION

In the recall of the "bad" words there was no difference between the mean recall of the female *Ss* ($M = 4.45$) and the mean recall of the male *Ss* ($M = 4.50$; $t = .12$, $p > .90$; 2-tailed test for this and all subsequent tests of significance). In retention of the "good" words, the mean recall of the female *Ss* ($M = 4.40$) was superior to that of male *Ss* ($M = 3.69$), although the statistical significance of the difference is debatable ($t = 1.82$, $.05 < p < .10$). Within the male *Ss* the recall of "bad" words was greater, though unreliably so, than recall of the "good" words ($t = 1.76$, $p < .10$). This greater recall of "bad" words held true for 11 of the 16 male *Ss*. Within the female *Ss*, there were no differences between recall of "good" and "bad" words ($t = .14$, $p > .90$). In terms of sheer frequency, 6 women recalled more "bad" words, 6 recalled more "good" words, and 8 recalled "bad" words as often as "good" ones.

The results of this experiment compare with the findings of Grosser and Walsh (1966) who found that male *Ss* recalled reliably more "sexually taboo" words than neutral words. The present results, however, do not confirm the earlier observation that females reliably recalled more neutral words than "sexually taboo" words.

While Gilbert (1938, p. 27) was quite critical of the immediate recall (free recall) test model for investigations on memory, feeling that the results were generally ambiguous or negative, the results of the Grosser and Walsh (1966) investigation indicated that this paradigm was still valuable. Grosser and Walsh combined the former technique of testing for immediate recall with the modern contribution of using a set of "sexually taboo" and neutral words as experimental

and control conditions, respectively. In addition, they compared males and females since "taboo" words seemed less threatening to males than to females (Grosser & Laczek, 1963; Grosser & Walsh, 1966; Postman, *et al.*, 1953). The Grosser and Walsh hypothesis that neutral words would be better recalled than "sexually taboo" words, with that differential higher for females than for males, was supported in part. They found that males and females were equal in ability to recall all the words, even though females recalled significantly more neutral words than "taboo" words while males recalled significantly more "taboo" words than neutral words.

The present study was designed to follow the Grosser and Walsh (1966) paradigm. It was assumed, however, that sex differences would not be obtained, since Ss used in the present investigation (college students) were comparable to Ss who showed the high agreement ratings regarding the stimulus properties in the Dixon and Dixon (1964) research. The hypothesis that all Ss would verbally recall significantly more "good" than "bad" verbs when an equal number of each were available for selection was not reliably supported. There was no reliable difference within the female Ss between the recall of "good" and "bad" words. Within the male group, the results regarding the current hypothesis are somewhat antithetic. While the difference in recall of "good" and "bad" words

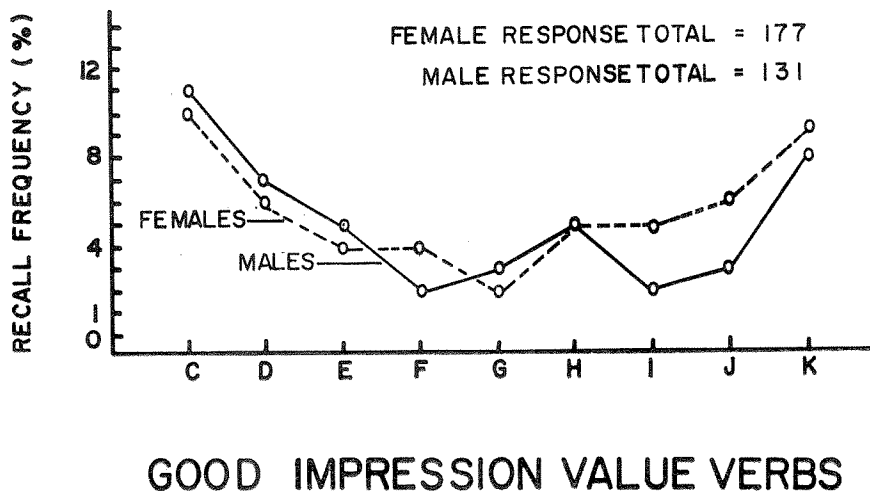


FIG. 1. Recall scores for male and female Ss for the individual good impression value verbs. Recall frequency is plotted in terms of % (computed on the basis of response totals, bad plus good words, 131 total responses for the males, 177 for the females). The words are arranged from shortest to longest; see Table 1 for meaning of letter code.³

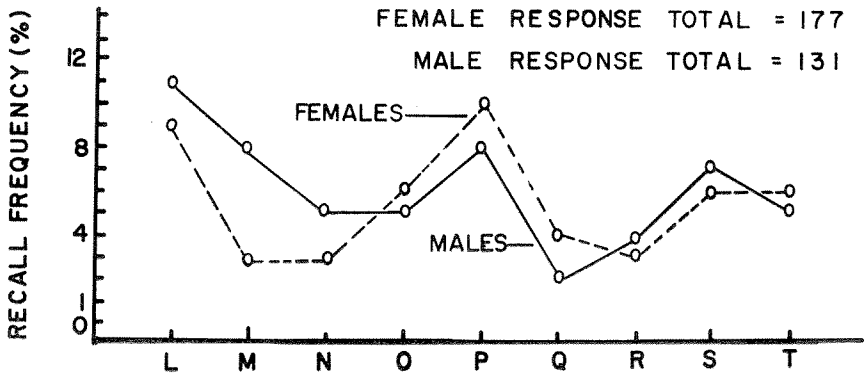
³The percent for total male recall of word C (loved) was 11.45, that for total female recall of word K (appreciated) was 8.50. Word K was plotted as a rounded score of 9, and word C as a rounded score of 11. This was the only occurrence in the plotting of the percents for Figs. 1 and 2.

is considered to be unreliable ($p < .10$), the trend in the data indicated greater recall of "bad" than "good" words. This observation corresponds to the results obtained by Grosser and Walsh (1966, pp. 220 ff.).

Two comparisons between the sexes corresponded in part to the earlier findings of Grosser and Walsh. As previously noted, male Ss and female Ss did not reliably differ in mean recall of "bad" words; however, the female Ss tended to recall more "good" words than the male Ss ($.10 > p > .05$), a result which is in the same direction as one of the findings of the Grosser and Walsh experiment. This observation, while paralleling those of Grosser and Walsh, is of questionable reliability.

In presenting the results of their investigation, Grosser and Walsh (1966, pp. 223 ff.) illustrated the differences in recall frequency between males and females for each of the 20 words. They noted that females consistently had higher recall scores than males on 9 of the 10 neutral words (tying on one word, *analysis*). Males, on the other hand, consistently had higher recall scores than the females on 9 of the 10 "sexually taboo" words (tying on one word, *intercourse*).

Figs. 1 and 2 show that recall of the individual words was more erratic in the present investigation. In Fig. 1 (Good Words), it may be noted that females outscored the males on four words (*mastered, comforted, respected, and appreciated*), the males outscored the females on four words (*loved, forgave, helped, and trusted*), and they were tied on one word (*honored*). In Fig. 2 (Bad Words), females scored higher than males on four words (*cheated, molested,*



BAD IMPRESSION VALUE VERBS

FIG. 2. Recall scores for male and female Ss for the individual "bad impression" value verbs. Recall frequency is plotted in terms of % (computed on the basis of response totals, bad plus good words, 131 total responses for the males, 177 for the females). The words are arranged from shortest to longest; see Table 1 for meaning of letter code.

