

Sensation Seeking and Antisocial Behavior: Some Laboratory Evidence

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Abstract. Twenty-six male college students scoring either high or low on Zuckerman, et al.'s (1964) Sensation Seeking Scale participated in a free association task in which they were to respond as quickly as possible to a series of stimulus words by saying the first word that came to mind. The stimulus words varied in their sexual content. It was found that high sensation seekers gave significantly more socially unacceptable sexual responses to the highly sexual stimulus words than did low sensation seekers, while these groups did not differ in their responses to either the moderately sexual or neutral words. These results were discussed in terms of the additional evidence they provide for the existence of a sensation seeking motive underlying socially unacceptable and antisocial behavior.

During recent years, increased attention has been given to the role of sensation seeking as an individual difference variable. The original attempt to operationalize this construct was made by Zuckerman, Kolin, Price and Zoob (1964) who developed a 22-item sensation seeking scale (SSS) designed to assess the tendency of individuals to engage in thrill seeking, risk taking, and novel activities. Those scoring high on this scale (who presumably have a high optimal level of stimulation) are assumed to seek out such arousing stimulus input, while those scoring low (who presumably have a low optimal level of stimulation) are assumed to avoid it.

To date, numerous studies have been conducted to determine correlates of sensation seeking. One particularly interesting group of studies have attempted to assess the relationships between sensation seeking and antisocial behavior. Farley (Note 1), for example, has proposed a relationship between sensation seeking and juvenile delinquency. He hypothesized that the environment has an important influence on the way high sensation seekers satisfy their stimulus input needs. If the environment is rich in socially acceptable experiences, then high sensation seekers will have little difficulty finding socially acceptable ways to satisfy their high stimulus input needs. If, however, the environment provides relatively insufficient amounts or variety of socially acceptable experiences, and instead provides many opportunities for antisocial behavior, high sensation seekers will become increasingly likely to satisfy their stimulus input needs through socially unacceptable means. Low sensation seekers, on the other hand, should be less sensitive to changing environmental opportunities for socially acceptable and unacceptable behavior, since their stimulus input needs are not as great. Thus, high sensation seekers, in comparison with low sensation seekers, are more likely to respond to environmental stimuli that suggest socially unacceptable or antisocial behavior. This hypothesis is supported by the finding that juvenile delinquents have higher scores on the sensation seeking scale than non-delinquents (e.g., Farley & Farley, 1972; Farley & Sewell, 1976).

It is important to note that this model assumes high and low sensation seekers differentially respond to exactly the same set of environmental stimuli, and that mediating social processes, such as peer pressure, are unnecessary for the occurrence of the socially unacceptable responses. Unfortunately, since the studies in this area have usually measured the subjects' sensation seeking status only after they engaged in the antisocial behavior, and since the circumstances surrounding this

behavior have been largely unobserved, the validity of these assumptions are unknown. The purpose of the present study was to address this problem by creating a laboratory analog of antisocial behavior environments in which the antecedent conditions leading to the socially unacceptable responses could be carefully controlled. Specifically, the frequency with which high and low sensation seekers gave socially unacceptable sexual responses to double entendre sexual stimulus words in a word association task was investigated. Based on Farley's (Note 1) model, and on the field data presented by Farley & Farley (1972) and Farley and Sewell (1976), it was predicted that high sensation seekers would give more socially unacceptable sexual responses to sexual stimulus words than would low sensation seekers, but that these two groups would not differ in their responses to non-sexual stimulus words.

Method. *Design and Subjects.* The study involved a 2 x 3 complete factorial design (high/low sensation seeking status by high/moderate/neutral sexual content of stimuli), in which the second factor was a repeated, within-subjects factor.

Zuckerman et al.'s (1964) Sensation Seeking Scale was administered to a large group of undergraduate students from lower division psychology courses at the University of Washington. Thirteen males scoring high (> 15) and 13 males scoring low (< 11) on this scale were contacted by telephone and asked to take part in a half-hour word association experiment.

Stimulus Words. The verbal stimuli consisted of thirty words previously scaled with regard to sexual meaning in a college population by Galbraith and Sturke (1974). Ten of these words were highly sexual in meaning, (e.g., lay, rubber, and screw); ten were moderately sexual in meaning, (e.g., mount, tool, and beaver); and ten were essentially neutral or non-sexual in meaning (e.g., copper, apple, and memory). These words were presented verbally in an ascending order (beginning with the neutral words and ending with the highly sexual words).

Procedure. The subjects participated in the experiment one at a time. They were seated across a small table from a female experimenter who was blind to their sensation seeking status. The experimenter began by introducing herself, and then outlined the procedure that would be followed. She indicated that she would say a series of words, one at a time, and that the subjects should respond as quickly as possible by saying the first word that came to mind. When the subjects indicated that they understood what they were to do, the experimenter began presenting the stimulus words. She recorded the subjects' responses as they were given. She also recorded to the nearest 1/100 second the length of time it took them to respond.

The subjects' responses to the stimulus words were scored for socially unacceptable sexual content by a judge who was blind to both the subjects' sensation seeking status and the hypothesis under investigation. Each response was assigned a score of either 0 or 1. Briefly, a score of 0 was assigned to clearly asexual responses as well as to responses which had some sexual content but which would normally be considered socially acceptable (e.g., Mother, Father, girlfriend, etc.). A score of 1 was assigned to sexual responses that would normally be considered socially unacceptable in most interpersonal contexts (e.g., words pertaining to sexual anatomical features, sexual acts, etc.). The scores for the ten words in each of the three content categories were summed, yielding a single overall content rating for each of the highly sexual, moderately sexual, and neutral word groups. Galbraith (1968) has found that the reliability for a similar scoring system consistently exceeds .95.

Results. The mean content rating for each condition is reported in Table 1. As can be seen, the neutral stimulus words elicited no socially unacceptable sexual responses from either the high or low sensation seekers. Similarly, the moderately

sexual stimulus words elicited only two socially unacceptable responses, both from high sensation seekers. Because of the lack of within-cell variability and the obvious similarity among the means of the four conditions involving the neutral and moderately sexual stimulus words, the data from these four conditions were not subjected to statistical analysis.

Table 1: Mean Content Rating for Each Experimental Condition

Sensation Seeking Status	Sexuality of Stimulus		
	Neutral	Moderate	High
High	.00 (.00)	.15 (.38)	1.69 (1.70)
Low	.00 (.00)	.00 (.00)	.46 (.52)

Note: Higher values indicate more socially unacceptable sexual content. Standard deviations are given in parentheses.

The bulk of the socially unacceptable sexual responses observed in the present study were elicited by the highly sexual stimulus words. Moreover, and consistent with the hypothesis, high and low sensation seekers differed significantly in the number of socially unacceptable responses they gave to these words. Approximately half of the subjects in each sensation seeking group gave at least one socially unacceptable response to the highly sexual stimulus words. Of these, however, high sensation seekers usually gave three or more socially unacceptable responses, while low sensation seekers never gave more than one. When all of the subjects are considered, nearly 17% ($M = 1.69$) of the responses given by high sensation seekers were socially unacceptable, while less than 5% ($M = .46$) of the responses given by low sensation seekers were socially unacceptable, $t(24) = 2.51, p < .01$.

Finally, the subjects' response latencies were subjected to a two-way repeated measures analysis of variance. This analysis revealed only a stimulus sexuality main effect, $F(2, 48) = 13.98, p < .001$. Response times generally increased as a function of stimulus sexuality.

Discussion. The findings from the present study support the theoretical model proposed by Farley (Note 1). In comparison with low sensation seekers, high sensation seekers were more likely to respond in socially unacceptable ways to environmental stimuli that suggested such behavior. As the stimulus words became increasingly sexual in meaning, and thereby more likely to elicit socially unacceptable sexual responses, high sensation seekers actually gave more socially unacceptable responses than did low sensation seekers. This finding is consistent with the field data that report a positive relationship between sensation seeking status and more extreme forms of socially unacceptable and antisocial behavior (e.g., Farley & Farley, 1972; Farley & Sewell, 1976). More importantly, the present data demonstrate that high and low sensation seekers may engage in different degrees of socially unacceptable behavior even in response to exactly the same set of environmental stimuli, and without the mediation of other social processes such as peer pressure.

It should be emphasized that we are not suggesting that high sensation seekers generally respond in more socially unacceptable ways than do low sensation seekers. Rather, their socially unacceptable behavior seems to be situation specific. High sensation seekers should engage in socially unacceptable and antisocial behaviors only when more acceptable alternatives for satisfying their stimulus input

needs are unavailable. Indeed, if the environment provides a rich assortment of socially acceptable experiences, high sensation seekers may demonstrate unusually desirable independent and creative behavior (c.f. Farley, Note 2). Thus, high sensation seekers should engage in the behavior that best satisfies their stimulus input needs. Whether or not this behavior is socially acceptable will depend on the nature of the alternatives available to them.

Reference Notes

1. Farley, F.H. A theory of delinquency. Paper presented at the American Psychological Association annual meeting, Montreal, 1973.
2. Farley, F.H. A theoretical-predictive model of creativity. Paper presented at the American Psychological Association annual meeting, New Orleans, 1974.

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