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ALCOHOL, PSYCHOLOGICAL CONSERVATISM, AND SEXUAL
INTEREST IN MALE SOCIAL DRINKERS*

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SUMMARY

The present study investigated self-reported sexual interest following alcohol consumption in 48 male social drinkers (\bar{X} age = 19.7 years). A sexual interest questionnaire and Wilson's Psychological Conservatism Scale were administered in a pretest-posttest design. The results indicated that while self-reported sexual interest appeared to increase with alcohol doses, beliefs regarding the alcohol content of the drink may mediate this change. Moreover, conservatism and self-reported sexual interest were not significantly related, although the significant negative correlation between the antihedonism factor and sexual interest disappeared when .8g/kg of alcohol was consumed.

A. INTRODUCTION

The functional relationship between alcohol consumption and sexual behavior has long been acknowledged (11). Nonetheless, empirical research investigating this relationship seems to have lagged behind more general speculations (4). Until recently, this research has been conducted mainly with animals with two resulting disadvantages. First, the alcohol doses administered typically bear no resemblance to the quantities that would normally be consumed in social situations (4). Second, the use of animal Ss necessarily precludes research regarding the possible mediating role of cognitive variables and social attitudes on responses to alcohol. This has resulted in a truncated view of the relationship between sexual arousal and alcohol consumption.

Such a truncated perspective may be particularly important in view of several recent investigations. For example, Wilson and Lawson's (24) and Marlatt *et al.*'s (10) results suggest that belief regarding the alcohol content

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of one's drink may be more crucial in determining subsequent behavior than its actual content. Similarly, Lang *et al.* (9) found expectancy to be the most important determinant of social aggression following alcohol consumption. However, much research on alcohol and human behavior is limited as physiological measures are frequently used as the dependent variable. Furthermore, Zuckerman maintains that the effects of the general experimental situation have not been considered, as "Confronted with prying experimenters attaching electrodes, penile plethysmographs, vaginal devices and showing pornographic stimuli, many subjects may be inclined to inhibit voluntary response" (25, p. 326). Finally, no study has yet specifically controlled for the demand characteristics associated with participating in an alcohol study even though informed consent is an ethical necessity in such research. All the human research cited here has focussed exclusively on Western oriented individuals.

Research on alcohol and sexual behavior has also largely ignored the issue of associated attitudes, which may have further restricted the apparent relationship between these two variables. Indeed, a factor which may mediate any relationship between alcohol and sexual behavior is that of psychological conservatism (20). It has been shown, for example, that conservatives and liberals differ predictably in their response to sexual humor: i.e., conservatives tend to prefer humor that is relatively devoid of sexual connotation (17, 21). Conservatism may therefore be both related to an individual's sexual interests and an important variable in the relationship between alcohol and sexual interest.

The present study thus investigated the mediating role of cognitive factors in determining the effects of alcohol on self-reported sexual interest. In addition, a quasi-experimental control group (*cf.* 14) was utilized to account for possible demand characteristics. Self-report of sexual interest regarding a variety of different sexual behaviors was chosen as a dependent variable, as it was felt that an adjunct to physiological indices of sexual arousal was indicated for two reasons. First, physiological measures *per se* may be reactive. Second, self-report of sexual interest is possibly more important than physiological measures, since it is possible to be physiologically aroused with no corresponding increase in self-reported arousal (16). The present study also investigated the relationship between psychological conservatism and sexual interest both before and after alcohol consumption.

More specifically, it was hypothesized that the self-report of sexual activities an individual had encountered and either enjoyed or not enjoyed,

as well as not encountered and did not want to, would remain unchanged irrespective of alcohol dosage. In contrast, activities that he had not encountered but would like to, would increase as a function of alcohol consumption. Moreover, contrary to the more traditional disinhibition theories (1) and consistent with recent research demonstrating the mediating effect of expectancy variables in physiological arousal, it was hypothesized that one's belief regarding the quantity of alcohol consumed would mediate increased interest in unencountered sexual behaviors. Finally, it was hypothesized that conservative factors would be strongly but negatively related to sexual interest. In the absence of any previous relevant research, however, no hypothesis could be posited regarding this relationship should alcohol subsequently be found to affect an individual's sexual interest.

B. METHOD

1. *Subjects and Setting*

Forty-eight male university students (\bar{X} age = 19.7 years, $SD = 2.7$), who rated themselves as social drinkers, served as volunteer *Ss*; all were English-speaking South Africans. Prior to the start of the study, all *Ss* gave their written consent to participate, stating that they were social drinkers evidencing no medical or behavioral problems associated with alcohol consumption. They completed both the pretest and posttest sessions in the privacy of an enclosed cubicle (1 m \times 1.50 m).

2. *Experimental Design*

A oneway pretest-posttest experimental design (3), which facilitated a quasi-experimental control for demand characteristics, was implemented. Under the pretest conditions, *Ss* were required to complete either Form A or B of the Sexual Experience Questionnaire (SEQ)¹ and the Psychological Conservatism scale (5). Five weeks later, they completed the posttest comprising the alternate form of the SEQ. The identical form of the Conservatism scale (13) was used in the pretest as it has been shown to have a test-retest reliability coefficient of .89 ($N = 82$).

Ss were randomly assigned to one of five treatment groups, as follows:

¹ The authors express their thanks to Ian M. Evans for his permission to use the Sexual Experience Questionnaire. Copies of the SEQ may be obtained from the first author at the address listed at the end of this study.

Group 1: Control Group ($n = 10$). *Ss* were requested to complete the SEQ and Psychological Conservatism scale under the same experimental conditions that had prevailed during the pretest.

Group 2: Simulated Alcohol Group ($n = 9$). Since an individual's "compliance" in an experiment has been shown to influence results (*cf.* 12), a quasi-experimental control group was used to account for such demand characteristics. These *Ss* received the following instructions:

We would like you to complete the questionnaire as though you had just consumed a fairly large quantity of alcohol. Not enough to make you so drunk that you would be unable to complete the questionnaires, but certainly sufficient to have had some effect on you. Do you understand?

The instructions regarding the quantity of alcohol consumed here was such that the presumed effects would be comparable to those in the two alcohol groups.

Group 3: Placebo Group ($n = 9$). Subjects received a quantity of Sprite (*cf.* to Seven-up) equivalent to the amount of liquid consumed by *Ss* in Groups four and five. To facilitate the credibility of the placebo, the inside rim of each 250 ml polystyrene cup was smeared with whisky. To enhance both taste and appearance, three drops of whisky were added to the mixture, since it has been found that this amount does not increase blood alcohol levels in social drinkers (*cf.* 2). *Ss* received the following instructions:

We would like you to drink this mixture over a period of 15 minutes. At the end of this 15 minute drinking period, please sit and rest for a further 15 minutes. This is to give your system time to absorb the drink before you complete the questionnaires. Do you understand?

Group 4: Alcohol Group 1 ($n = 10$). *Ss* received the equivalent of .4 gm of ethyl alcohol per kilogram body weight mixed with 5.6 parts Sprite to produce a 15 percent solution.

Group 5: Alcohol Group 2 ($n = 10$). *Ss* received the equivalent of .8 gm of ethyl alcohol per kilogram of body weight, again administered in a 15 percent solution with Sprite.

In addition to receiving the same instructions pertaining to the consumption of alcohol, a double-blind administration was used with Groups Three, Four, and Five: The second *E* prepared the mixtures and the first *E* then administered them without any knowledge of their content.

3. Procedure

All Ss were individually tested throughout the experiment. On arrival they were led into cubicles and given appropriate instructions. Five weeks following the pretest they were seen again and instructed not to eat or drink for five hours prior to the posttest. After completing the posttest, those in Groups Four and Five were advised to eat something, rest for a while, and not to drive. On completion of the study, a debriefing session was held in which the aims of the experiment and the reasons for the particular method utilized were explained. All Ss were paid the equivalent of \$1.50 per hour for their participation.

4. Apparatus

a. Sexual Experience. The SEQ was used, since it sampled a variety of sexual behaviors from the most accepted and common (e.g., "held hands with someone of the opposite sex"; "deep-kissed with someone of the opposite sex"), to overt sexual behavior ("had sexual intercourse in the female superior position [woman above the man]"; "experienced mutual fondling of genitals by hand"), to what are commonly held to be the more perverse and less frequent sexual behaviors (e.g., "used an animal such as a cat, a dog, or a farm animal in order to obtain sexual satisfaction"). The 60 items covering this range of possible sexual activities were divided randomly into two questionnaires, Form A and B. Each item was rated on one of four logical possibilities: *viz.*, (a) Have done and enjoyed; (b) have done and not enjoyed; (c) Have not done but would like to; and (d) Have not done and would not like to. These four criteria served as dependent variables and covered the range of possibilities regarding participation in sexual experience.

b. Psychological Conservatism. Wilson's 50-item Conservatism Scale (20) was chosen for a number of reasons. First, it yields a number of subfactors, one of which—antihedonism—was considered to be particularly useful for the present study, since its items reflect sexual conservatism. Second, the total scale is relatively free of social desirability factors (15). Finally, it has been shown to be valid within a South African context (22).

c. Postexperimental Questionnaire. A postexperimental questionnaire which required Ss to estimate the percentage of alcohol in their drink was also administered. In order to give them some baseline criterion for their evaluation, the typical alcohol percentages of drinks, such as beer, wine, and fortified spirits were presented.

C. RESULTS²

Within the normal control group, a pretest-posttest analysis was performed on the four criteria of the SEQ to obtain some indication of its reliability. Pearson correlations between the pretest and posttest on the "Have done and enjoyed" ($r = .62, p < .03$), "Have done and not enjoyed" ($r = .92, p < 0.001$), and "Have not done and would not like to" ($r = .80, p < .003$) were all highly significant, while that of the "Have not done but would like to" ($r = .48, p = .08$) approached significance. This indicates that the two halves of the SEQ were comparable, thus justifying their use.

One-way analyses of variance were computed between the four dependent variables on the pretest scores from the SEQ. In view of the fact that no significant between-group differences emerged on any of the four dependent variables at pretesting, and Huck and McClean's (7) comment that a repeated measures ANOVA is not appropriate for such a pretest-posttest design, covariance analyses with the pretest score as the covariate were used to analyze the sexual interest data. This analysis demonstrated that group differences on the "Have done and enjoyed" ($F = .26, p > 0.05$), "Have done and not enjoyed" ($F = .41, p > .05$) and the "Have not done and would not like to" ($F = 1.79, p > .05$) did not approach significance at posttesting. However, responses on the "Have not done but would like to" variable achieved significance ($F = 3.20, p < .025$).

Since the three groups receiving some beverage differed significantly from one another in terms of their belief regarding the percentage alcohol contained in their drink ($F = 15.33, df = 2/24, p < .001$), a further covariance analysis was computed in which both the pretest data and the S's estimation regarding the alcohol content of his drink served as covariates. The significant differences between the five groups reported above were no longer obtained ($F = 2.44, p > .05$).

Since only Alcohol Group 2 demonstrated a significant pretest-posttest difference on the "Have not done but would like to" variable ($t = 2.34, df = 9, p < .05$), the covariation of conservatism with sexual interest, both before and after alcohol consumption, was examined for this group alone. On the pretest, the antihedonism factor and the "Have not done but would like to" variable correlated significantly ($r = -.65, p < .025$), a relationship that diminished following the administration of .8 gm/kilogram body weight of ethyl alcohol ($r = -.01, p > .05$). Significant relationships did not

² For all r values in this section, $df = 9$; for all F values, $df = 4/42$, except where otherwise indicated.

emerge on the total Conservatism index on either the pretest ($r = -.44$, $p > .05$) or posttest ($r = .14$, $p > .05$). However, this might be due to the fact that the total Conservatism score reflects the summation of a number of subfactors (*viz.*, religion, militarism, antihedonism and ethnocentrism), none of which were related significantly to the "Have not done but would like to" variable ($p > .05$ in all cases).

Adjusted mean scores for the five groups on all dependent variables are presented in Table 1.

D. DISCUSSION

The results suggest that belief regarding the alcohol content of one's drink may be an important moderator of subsequent behavior as this variable, rather than the alcohol content itself, appeared to account for the significant group differences. Thus, with belief controlled statistically the dose-correlated increase observed in the self-report of desired sexual experiences (an indication of sexual interest) disappeared. Cognitive variables may therefore serve as important mediators in the relation between alcohol and sexual behavior. This accords with findings regarding the importance of male social drinkers' expectancies (23), and is further consistent with the theoretical stance of Schachter (16) and Valins (18) that an individual's physiological arousal might not be the primary determinant of emotional

TABLE 1
ADJUSTED MEANS FOR DEPENDENT VARIABLES

Variable	Group 1	Group 2	Group 3	Group 4	Group 5
Sexual interest					
Have done and enjoyed	12.18	13.78	12.76	12.94	13.20
Done and not enjoyed	0.91	1.38	1.19	1.52	1.16
Not done but would like to	6.38	7.23	6.92	7.41	10.38
Not done and don't want to	10.53	6.88	8.06	7.97	6.83
Conservatism					
Ethnocentrism	17.10	19.66	18.07	18.19	18.49
Religiosity	19.61	19.79	19.04	19.76	18.91
Hedonism	22.60	17.47	21.89	22.26	21.29
Militarism	24.53	23.13	24.06	24.12	25.59

reactions. However, the extreme salience accorded to the role of belief in the present study may be due to the fact that, when subjects completed the postexperimental questionnaire, it was demonstrated that they had been able to discriminate the quantity of alcohol in their drink, since (a) no Cloraseptic mouthwash had been administered to reduce their taste acuity (*cf.* 24), and (b) approximately 45 minutes to an hour would have elapsed since the consumption period.

Previous research investigating the effects of alcohol in sexual fantasy (as measured by the TAT) has produced equivocal results. A number of reasons may be posited for the lack of consistent findings. First, previous research utilized projective measures which rely on indirect assessment of sexual fantasy. Second, where no significant differences emerged following different levels of alcohol administration, one TAT card only has been used (*cf.* 23, 24). However, when more than one TAT card was presented, male social drinkers did evidence an increase in sexual fantasy when they were in the presence of attractive females (8). In the present study, all items in the SEQ may be regarded as stimuli that evoked fairly specific sexual images. The significant increases found in self-reported sexual interest (before the effect of the estimation of alcohol quantity was partialled out) may be accounted for, therefore, by the use of specific stimuli to arouse sexual imagery.

Clinical observations have previously implicated alcohol consumption as an important cause of secondary impotence (11). Taken in conjunction with studies investigating the effects of alcohol on physiological indices of sexual arousal, the present study provides some experimental evidence to support these clinical observations. It thus appears that the dose-dependent decrease in physiological functioning with alcohol intake (2, 6, 23, 24) is paralleled by increasing interest in a wider range of sexual experiences and activities with perceived alcohol consumption. Future research might therefore profitably investigate whether this hypothesized interaction does occur and at what levels it might be expected.

The present results suggest that an individual's sexual interest and conservatism on antihedonism factor are significant but negatively related; i.e., more conservative individuals report less interest in a wide range of sexual activities. This is consistent with evidence regarding the reactions of conservative persons to sexual jokes (*cf.* 20). When 8 gm/kg alcohol was administered, however, the significant relationship emerged. This suggests that alcohol may remove possible inhibitory effects of psychological conser-

vatism. Although similar relationships did not emerge with .4 gm/kg alcohol, this finding may nonetheless provide support for a disinhibitory-type explanation, as there is evidence showing that lower levels of alcohol possess stimulant effects (19). Nonetheless, it is possible that social (role) factors associated with alcohol consumption may mediate a change in the relationship between conservatism and sexual interest.

Although it may be assumed that demand characteristics are an important variable in researching effects of alcohol on behavior, in the present study such factors did not account for any of the significant results. As payment for participation is likely to produce a less "compliant" interest in the outcome of the experiment, the role of demand characteristics may thus have been minimized in the present investigation. However, since an individual's motives for participating in an experiment are held to be important (12), it is still possible that demand characteristics influence results.

Since the alcohol dosages in the present study approximated only those that occur in the typical social drinking situation (4), it is not known whether greater quantities would continue to increase one's desired range of sexual interests.

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