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THE EFFECTS OF GENDER AND DRINKING EXPERIENCE ON ALCOHOL EXPECTANCIES ABOUT SELF AND MALE VERSUS FEMALE OTHER*

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Two questionnaire studies evaluated the effects of gender and drinking experience on dose-related alcohol expectancies. In Study 1, the Southwick et al. (1981) expectancy measure was administered to 173 students and no gender differences were found. Consistent with earlier work, increased drinking experience was associated with expectation of more stimulation and pleasure from a moderate alcohol dose. A moderate dose was associated with expectation of more stimulation, more pleasure, and less impairment than a high dose. In Study 2 (n = 174). the instrument was modified to assess alcohol expectancies about a male or female target person. Expectancies about alcohol's effect on the target were determined by both gender of subject and gender of target. Female subjects expected alcohol to produce more stimulation and pleasure for the target person than male subjects expected. The female target was viewed by all subjects as experiencing less stimulation. Male and female subjects disagreed in their perceptions of how much pleasure the female target derives from drinking. As with self expectancies, subjects perceived that alcohol has biphasic effects on others. Implications for social drinking interactions are discussed.

Research on alcohol expectancies has enriched our knowledge about the psychological processes associated with alcohol consumption and its effects on psychosocial behavior. Two prominent methodologies have emerged with this work: the balanced placebo design and self-report measures of expectancies. Inconsistent gender differences evident in both paradigms have suggested that men and women hold differing expectations about the effects of alcohol.

Balanced placebo design experiments first demonstrated the importance of

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alcohol expectancies by showing that perceived alcohol ingestion overrode actual low-dosage ingestion in heightening sexual arousal (e.g. Wilson & Lawson, 1976), aggression (Lang, Goeckner, Adesso, & Marlatt, 1975), and social relaxation (Wilson & Abrams, 1977) in men. These data suggested that men expected certain effects from alcohol and behaved according to those expectancies after consuming what was presented as "alcoholic" beverage. Similar studies with female subjects have yielded a different and more complex pattern of data suggesting gender differences in alcohol expectancies (Wilson & Lawson, 1978; Abrams & Wilson, 1979). However, because alcohol expectancies were being inferred rather than measured in balanced placebo studies, the nature of these differences could not be ascertained.

Self-report measures were developed to assess expectancies directly and to specify their content. Studies using such measures have shown sporadic evidence for gender differences and consistent evidence that endorsement of alcohol expectancies increases with greater drinking experience (e.g. Brown, Goldman, Inn, & Anderson, 1980; Rohsenow, 1983; Southwick, Steele, Marlatt, & Lindell 1981). Reporting on the development of a 6 factor alcohol expectancy measure, Brown et al. (1980) found gender differences that unfortunately were confounded with drinking experience. A subsequent study by Southwick, et al. (1981) developed a measure assessing expectancies about both a moderate and high dose of alcohol, identified 3 expectancy factors, and detected no gender differences in tests unconfounded with drinking experience. Using a modified version of the Brown et al. (1980) instrument, Rohsenow (1983) distinguished between respondents' expectancies about alcohol effects on the self versus other drinkers. She found that subjects expected alcohol to have stronger effects on others than on the self. Gender differences unconfounded with drinking experiences were observed in expected alcohol effects on the self but not on the hypothetical target person, whose gender was not specified.

Cultural stereotypes and sex role socialization depict intoxicated behavior as more negatively sanctioned for women than for men (Blume, 1986; Leland, 1984; Marlatt & Rohsenow, 1980; Morrisey, 1986). Therefore, gender differences in expected alcohol effects on others should depend on the gender of the hypothetical target person. In the present research, we investigated gender effects on dose-related (moderate dose vs. high dose) alcohol expectancies for self and for a male versus female target person. The Southwick et al. (1981) instrument was administered in two studies. In the first, the effects of subject gender and drinking experience on self expectancies were re-examined. In the second study, the Southwick et al. (1981) instrument was modified to investigate effects for target gender along with effects for subject gender and drinking experience.

STUDY I

Southwick et al. (1981) identified three alcohol expectancy factors: Stimulation/Perceived Dominance, Pleasurable Disinhibition, and Behavioral Impairment. Dosage set effects revealed that more stimulation and pleasure were associated with a moderate dose than a high dose; conversely, more impairment was associated with the high dose. Moreover, heavier drinkers expected greater stimulation and pleasure than lighter drinkers, but heavier and lighter drinkers expected equal impairment. We anticipated that these findings would replicate in our sample. Because gender differences in self expectancies have been reported

with other instruments (Brown et al., 1980; Rohsenow, 1983) and because findings from balanced placebo studies suggest that the postdrinking behavior of men is more congruent with expectations of alcohol-enhanced psychosocial behavior than that of women, we predicted that males would exhibit stronger endorsement of the expectancies than females.

METHOD

Subjects were 173 undergraduate psychology students (85 men and 88 women). A drinking habits questionnaire (Southwick et al., 1981) assessing drinking frequency and weekly consumption was administered. In the Study 1 sample, there were 11 abstainers (never drink), 19 occasional drinkers (drink at least once a year, but less than once a month), 80 light/moderate drinkers (drink at least once a month, but no more than 3 or 4 drinks at a time), and 63 heavy drinkers (drink nearly everyday or weekly, often 5 or more drinks at a time). In a classroom setting, subjects completed a questionnaire packet containing the Southwick et al. (1981) instrument. Completion of the instrument required that the subject use 37 bipolar adjective dimensions to indicate how he or she expects to feel after drinking. Each adjective dimension was presented on a five-point scale. Subjects completed the 37 items twice, once each for the moderate and high dosage sets. To minimize response sets, some of the items were keyed in the reverse.

RESULTS AND DISCUSSION

Following the Southwick et al. (1981) convention, a scale score was computed for each expectancy factor by summing the respective items, dividing by the number of items, and multiplying by 10. Scale reliabilities and intercorrelations are reported in Table 1. Reliability coefficients of .80 or above (estimated by Cronbach's alpha) were comparable to those reported by Southwick et al. (1980) and intercorrelations were generally small. A pattern of five elevated intercorrelations (r ~ .29) matched the pattern reported by Southwick et al. (1981). Generally, these findings are compatible with the three-factor solution reported by those authors.

TABLE 1: SCALE RELIABILITIES AND INTERCORRELATIONS FOR STUDIES 1 AND 2.

	Study 1					
	Moderate Dose			*High Dose*		
	Stimul.	*Pleasure*	*Impair.*	*Stimul.*	*Pleasure*	*Impair.*
Moderate Dose						
Stimulation	(.82)	.58	.16	.39	.20	.16
Pleasure		(.80)	.11	.14	.29	.21
Impairment			(.82)	.10	.05	.50
High Dose						
Stimulation				(.86)	.69	.19
Pleasure					(.82)	.15
Impairment						(.83)

	Study 2					
	Moderate Dose			*High Dose*		
	Stimul.	*Pleasure*	*Impair.*	*Stimul.*	*Pleasure*	*Impair.*
Moderate Dose						
Stimulation	(.74)	.54	.18	-.02	-.11	. 03
Pleasure		(.74)	.13	-.13	-.01	.06
Impairment			(.79)	-.13	-.08	. 31
High Dose						
Stimulation				(.86)	.74	.22
Pleasure					(.84)	.15
Impairment						(.80)

Note. Scale reliabilities (estimated by Cronbach's alpha) are reported on the diagonal.

Mixed 2x4x2 ANOVAs (subject gender and drinking habits, with dosage set as the within-subject variable) were performed on unweighted means for each of the 3 expectancy scales. Effects for dosage set were evident on all 3 expectancies. Compared to the high dosage set, the moderate dosage set was associated with significantly more Pleasurable Disinhibition (F [1,165] = 6.68, p = .011), nonsignificantly more Stimulation/Perceived Dominance (F [1,165] 1.96, p = .163), and significantly less Behavioral Impairment (F [1,165] = 101.99, p < .0001). Significant interaction effects with drinking experience indicated that, for Stimulation/Perceived Dominance (F [3,165] = 4.13, p = .007) and Pleasurable Disinhibition *(F* [3,165] = 3.91, p = .01), the moderate versus high dosage difference was more pronounced in heavier than lighter drinkers (see Figure 1). Newman-Keuls tests showed that heavy drinkers expect significantly more stimulation and pleasure from a moderate dose than from a high dose. Trend analyses on moderate dose expectancies revealed that there were significant linear effects for drinking experience on both Stimulation/Perceived Dominance (F [1,169] = 13.30, p = =.0004) and Pleasurable Disinhibition (F [1,169] = 24.67, p < .0001). Under the high dosage set, however, there was a marginal quadratic effect of experience on Pleasurable Disinhibition (F [l,169] = 13.71, p < .056).

Consistent with the Southwick et al. (1981) data, the present data provide further support for the contention that drinkers expect alcohol to have biphasic effects: desirable effects during the moderate dose phase of a drinking episode and undesirable effects during the high dose phase. However, belief in biphasic alcohol effects was primarily evident with heavy drinkers on dimensions of pleasure and stimulation. Less experienced drinkers exhibited less differentiation between moderate and high dose effects except with impairment effects. It is primarily alcohol's initial effects that are perceived as reinforcing of consumption (Russell & Mehrabian, 1975) and more experienced drinkers have greater faith in the reinforcing consequences of moderate dosage (Brown et al. 1980; Brown, Goldman, & Christiansen, 1985; Rohsenow, 1983; Southwick et al., 1981). With high dose expectancies, drinking experience had little effect except for suggestion of a curvilinear relationship on Pleasurable Disinhibition (Figure 1).

That drinking history is linked to belief in positive moderate-dose effects is logical because individuals with more past drinking occasions have had more opportunity to experience and witness the desirable effects of a moderate dose. Also, it is likely that the varying expectancies expressed by experienced versus inexperienced drinkers contribute to the maintenance of present drinking habits.

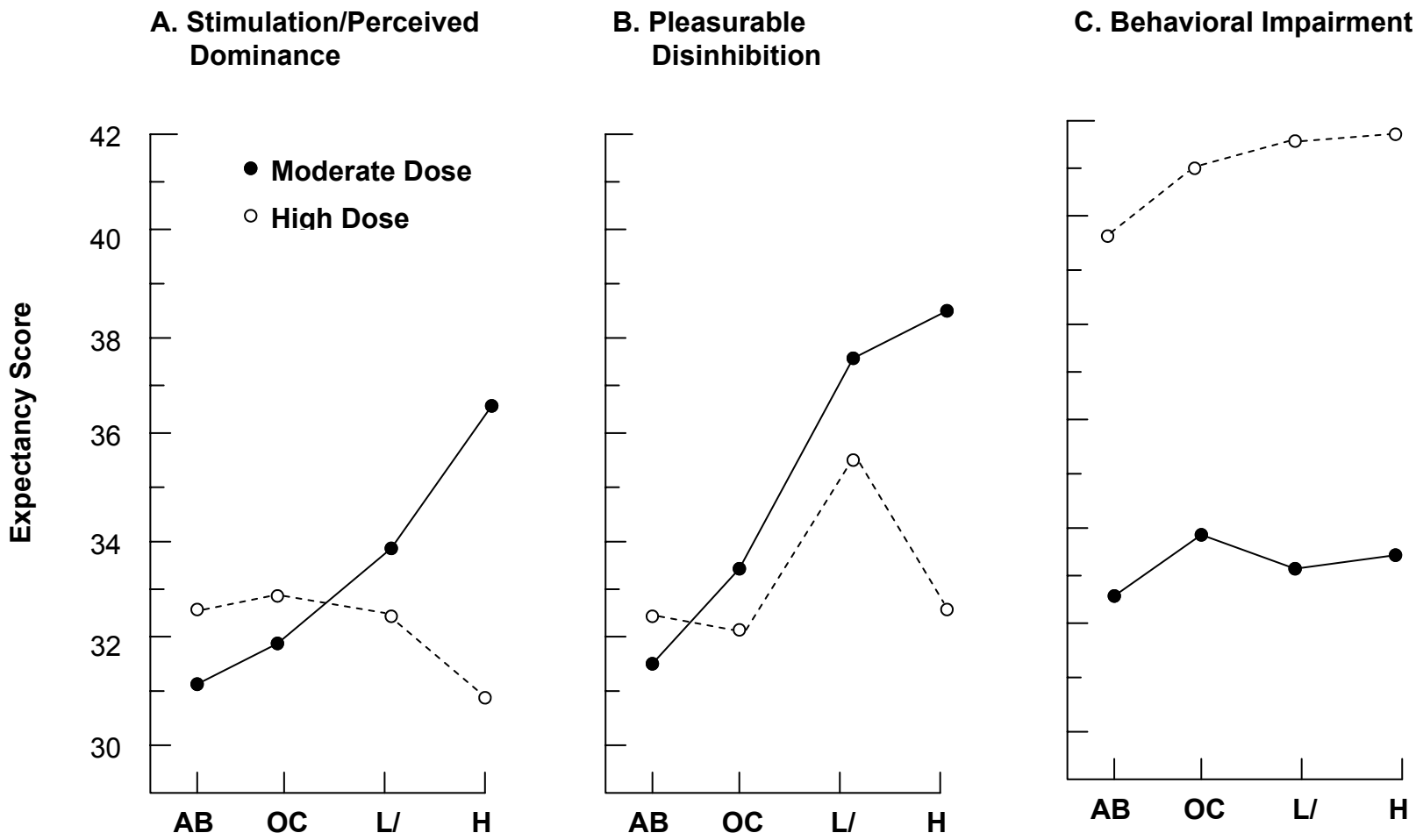

FIG 1: Moderate and high dosage expectancy scores as a function of drinking habits, in Study 1 (AB = abstainers, OC = Occasional drinker, L/M = light and moderate drinkers, H = heavy drinkers).

What is striking is the lack of differentiation between drinkers regarding alcohol's high dose effects. This pattern is consistent with the clinical observation that heavy drinkers seem so strongly tempted by alcohol's immediate pleasant effects while undeterred by the delayed negative effects associated with high dosage consumption.

No gender main effects were observed in Study I. A gender by dosage set interaction on Behavioral Impairment (F[l,165] 6.O3,p .015) indicated that the expected rise in Behavioral Impairment from moderate dose to high dose was steeper for females than for males. The absence of gender main effects agrees with the Southwick et al. findings but disagrees with findings obtained with other measures (Brown et al., 1980; Rohsenow, 1983). The discrepancy is perhaps due to properties of the two different types of measures. Unlike the Southwick et al. instrument which uses a Likert-type answer format, other measures have used a dichotomous agree-disagree (Brown et al., 1980) or true-false (Rohsenow, 1983) format. These other two instruments also have more factors. The greater range of factors may enable detection of gender differences that are less apparent in a simpler 3 factor assessment.

STUDY 2

The objective of Study 2 was to investigate the expectancies that people hold about the effects of alcohol on a male versus female drinker. Little is known about the expectancies people hold about alcohol's effects on another person. Rohsenow (1983) reported that subjects expected alcohol to have stronger effects on the other person than on the self. Gender played a prominent role in her findings: (I) The self-versus-other discrepancy was greater for female than male subjects. (2) Though male and female subjects differed in self expectancies, they did not differ in other expectancies. However, because the gender of the other person was left unspecified, it is not known whether people hold differing expectations about the effects of alcohol on a male versus female other.

There is reason to speculate that expectations about alcohol's effects on another person might vary with the gender of the target person. First, intoxicated behavior is judged more negatively for women than men (Blume, 1986; Leland, 1984; Morrisey, 1986). Second, widespread cultural depictions (e.g. the bar room brawl) and experimental findings (Taylor & Leonard, 1983) portray the drunken transgressor as more likely male than female. Third, despite recent evidence of increased female alcohol consumption, males still drink more than females and have more alcohol-related problems (Wilsnack & Beckman, 1984). Finally, since the female drinker is more likely to be victimized by another drinker than her male counterpart (Fillmore, 1985), she may be perceived as more vulnerable to victimization. We hypothesized that alcohol's expected effects on another person would differ based on the gender of the target person.

As in Study 1, effects for subject gender, dosage set, and drinking habits were also examined in Study 2. Furthermore, the data from both studies were combined to test the self-other discrepancy observed by Rohsenow (1983). This permitted a between-subjects test of the proposition that subjects expect alcohol to have stronger effects on others than on the self.

METHOD

Subjects were 174 undergraduate psychology students (61 men and 113 women). Completion of the drinking habits questionnaire revealed that the Study 2 sample contained 18 abstainers, 17 occasional drinkers, 93 light/moderate drinkers, and 46 heavy drinkers. In a classroom setting, subjects completed a questionnaire packet containing a modified Southwick et al. (1980) instrument. The instrument was identical except that directions were revised such that subjects were instructed to rate how alcohol would affect either a "young man" or a "young woman.

RESULTS AND DISCUSSION

Scale scores for the expectancy factors were computed as in Study I. Reliability coefficients for the scales, estimated by Cronbach's alpha were all at .74 or above. Reliability coefficients for each scale and intercorrelations between scales are reported in Table I. Mixed 2x2x4x2 ANOVAs (target gender, subject gender, and drinking habits, with dosage set as the within-subject variable) were performed on unweighted means for each of the 3 expectancy scales.

GENDER OF TARGET

On Stimulation/Perceived Dominance, a main effect for target gender (F [1,158 = 5.44, p = .021) revealed that the female target was perceived by all subjects as less stimulated by alcohol than the male target. The female drinker was not expected to derive as much Stimulation/Perceived Dominance from alcohol as her male counterpart. This finding seems agreeable with the conventional wisdom that it is men who are more likely to become overly boisterous or rowdy after drinking.

On Pleasurable Disinhibition, the target gender effect was not significant. However, the target gender by subject gender interaction was significant, F (l,158) = 5.77, p = .017. The means depicted in Figure 2 show that male and female subjects agreed on the amount of pleasure achieved by the male target drinker. However, for the female target, female subjects perceived more pleasurable effects than did male subjects. These findings on stimulation and pleasure seem consistent with the longstanding stereotype that it is less appropriate for a woman to enjoy drinking than a man. However, female subjects appeared less swayed by the stereotype in their estimation that women can achieve as much pleasure from alcohol as a man.

There were no target gender or subject gender effects on Behavioral Impairment. Male and female subjects viewed male and female targets as equally impaired by alcohol.

GENDER OF SUBJECT

There were main effects for subject gender on Stimulation/ Perceived Dominance (F [l, 158] = 14.15, $p < .001$) and Pleasurable Disinhibition (F [1,158] = 8.23, p = .005). Compared to males, females expected that the target drinker would experience more stimulation and pleasure; but for pleasure this effect was limited to the female target. A significant subject gender by drinking habits interaction on Stimulation/Perceived Dominance (F [3,158] = 2.65, p = .050) showed that only for male subjects was more drinking experience associated with

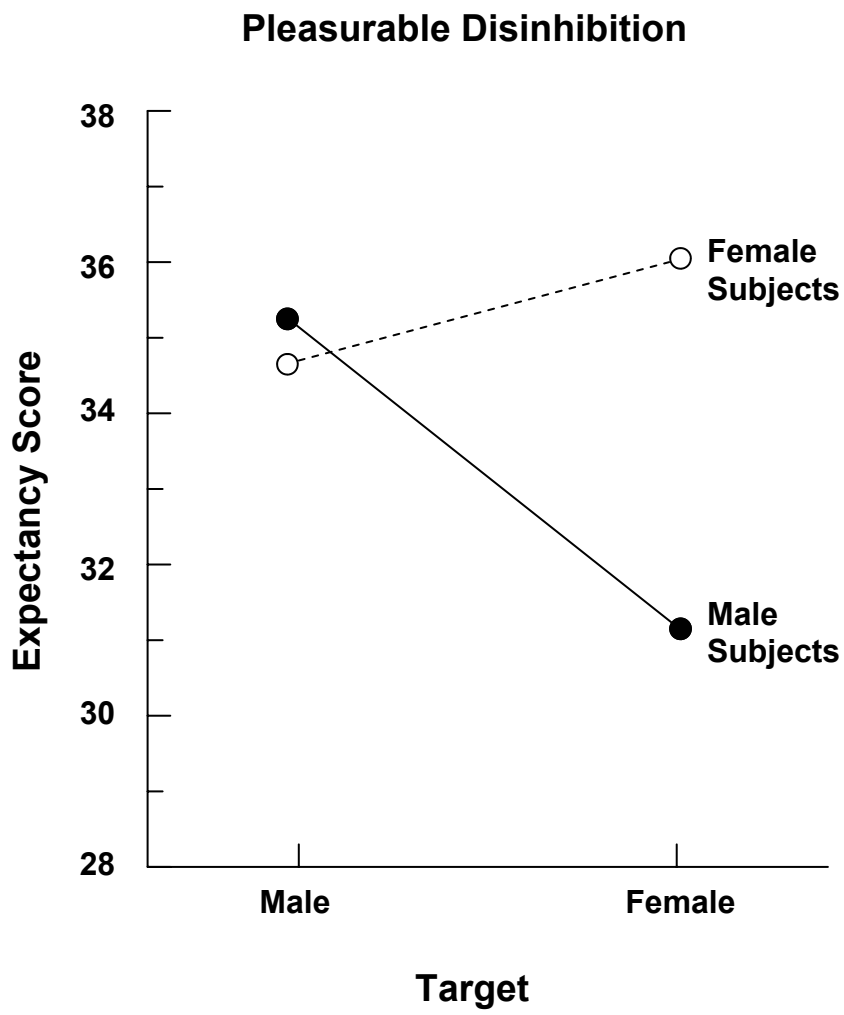

FIG 2: Moderate dosage Pleasurable Disinhibition scores for male versus female Subjects as a function of gender of target, in Study 2.

increased expectations of stimulation. Generally, female subjects estimated greater alcohol effects on another person than did male subjects and their estimates did not appear to be determined by drinking experience. This finding suggests that other-directed expectancies accurately reflect the physiological reality that a given dose of alcohol (e.g. 1g ethanol per kg bodyweight) produces higher blood alcohol levels in women than in men. However, it is unclear why this gender difference would obtain with other-directed expectancies but not with the self expectancies measured in Study I and in the Southwick et al. (1981) study.

In contrast, Rohsenow (1983) found gender differences in self but not other expectancies. As noted earlier, discrepant findings with self expectancies may have been due to differences in the response format and / or factor structure of the two instruments. Discrepant findings with other expectancies may also have been influenced by these methodological differences. However, it may also be that gender of subject differences in other expectancies come into clearer relief when target gender is specified. In the case of Pleasurable Disinhibition, the expectancies of male and female subjects were clearly dependent on the gender of the target person.

DOSAGE

Dosage effects revealed that moderate dose was perceived as producing more Stimulation/Perceived Dominance (F [l,158] = 22.01, $p < .001$), more Pleasurable Disinhibition (F [1,158] = 37.23, $p < .001$), and less Behavioral Impairment (F [l,158] = 150.77, $p < .001$) for the target person than high dose. This finding extends earlier work by indicating that individuals expect alcohol to have biphasic effects on other drinkers. A significant drinking habits by dosage interaction on Behavioral Impairment (F [3,158] = 3.06, $p < .030$) and Newman-Keuls tests showed that, for the moderate dose, abstainers and occasional drinkers estimated that the target drinker would be more impaired than did light/ moderate and heavy drinkers. Evidently, more experienced drinkers are inclined to underestimate the effects of a moderate dose on another person. For the heavy dose, abstainers and heavy drinkers differed in the same pattern.

DRINKING HABITS

Except for Behavioral Impairment, drinking experience had little effect on alcohol expectancies for another person. Though subjects expected alcohol to have biphasic effects on the stimulation and pleasure experienced by another person, this expectation was not influenced by the subject's own drinking experience. That responsents' own drinking experiences were less influential is not consistent with the effects obtained with self expectancies. It makes sense that the individual's own drinking experiences would be more related to self expectancies than to other expectancies. This is consistent with Rohsenow's (1983) suggestion that other expectancies are acquired through culturally transmitted stereotypes, whereas self expectancies are based on general expectancies that become modified by the drinker's own experiences.

COMPARISON OF SELF VERSUS OTHER EXPECTANCIES

To test for the self-other discrepancy observed by Rohsenow (1983), Study I data from the original (self-target) instrument and Study 2 data from the male and female-target versions were combined, and planned comparisons were performed on moderate dose expectancies. As shown in Table 2, for female subjects, the self-other discrepancy was significant across all three expectancies.

Females who rated the effects of alcohol on another person estimated greater degrees of stimulation, pleasure, and impairment than females who estimated the effects of alcohol on the self. For male subjects, however, the discrepancy was less evident, emerging only for impairment. Similarly, Rohsenow (1983) found a greater self-other discrepancy for female subjects. When evident, the self-other discrepancy seemed equally apparent in comparisons to male and female other except for a trend toward the effects being slightly more pronounced when comparing self to female target.

Generally, the obtained self-other discrepancy concurs with the Rohsenow (1983) findings. At least for female subjects, the effect appears robust across different expectancy measures and across within- and between-subject tests, suggesting that the effect is not determined by a conscious comparison to the target person. A limitation of the present self-other discrepancy data is that participants were not randomly assigned to the two studies and thereby to the self and other conditions. However, the lack of random assignment probably does not invalidate the findings, because subjects in both studies were from the same undergraduate population. Nevertheless, a more rigorous between-subjects test of the self-other discrepancy is called for. A practical implication of the self-other discrepancy is that in social interactions involving two drinking participants, each person would be inclined to overestimate the partner's drunkenness. Such distortion could contribute to an escalating sequence of miscommunications such as is often observed in drunken violence.

TABLE 2: SUMMARY OF STUDIES I AND 2: MEANS AND F RATIOS FOR COMPARISON AMONG GROUPS WHO RATED MODERATE DOSE EXPECTANCIES FOR EITHER SELF TARGET, MALE TARGET, OR FEMALE TARGET.

	Means			*F (1,323) Ratios*		
	Self Target	*Male Target*	*Female Target*	*Self vs. Male*	*Self vs. Female*	*Self vs. Other*
Stimulation						
Male subjects	34.95	35.65	34.08	< 1	< 1	< 1
Female subjects	34.44	37.00	37.08	9.87**	11.08**	15.04**
Pleasure						
Male subjects	37.13	37.46	36.25	< 1	< 1	< 1
Female subjects	36.81	38.25	38.89	3.78	8.35**	8.36**
Impairment						
Male subjects	34.24	36.04	37.10	2.46	5.79*	6.30*
Female subjects	32.81	37.01	37.24	19.31***	22.67***	30.1l***

**p<.05 **p<.005 ***p<.001*

SUMMARY AND CONCLUSIONS

Dose-related alcohol expectancies were influenced by gender and drinking experience. The degree of influence depended on whether expectancies were being assessed for the self or for another person. Study I which assessed self expectancies largely replicated those reported by Southwick et al. (1981): No

gender main effects obtained but effects for dosage set and drinking experience were evident. Generally, biphasic alcohol effects were expected and more experienced drinkers expected more stimulation and pleasure. Study 2 extended these findings by showing that respondents expected biphasic alcohol effects on another person and that drinking experience had little effect on perceived alcohol effects on another person.

Gender effects in Study 2 revealed that perceived alcohol effects on another person were determined by target gender and subject gender. Female subjects estimated stronger effects than did male subjects. Males and females agreed that the female target would achieve less stimulation from drinking than the male target. Males, however, also expected that the female drinker would achieve less pleasure than the male drinker. These newly observed target gender effects are noteworthy and suggest that preexisting biases were evoked by specifying the gender of the drinker. Evidently, alcohol is viewed as affecting men and women differently. Consistent with data linking sex role orientation to alcohol consumption (Chomak & Collins, 1987), the present data suggest that perhaps individuals are socialized to view alcohol use as differentially congruent with male and female sex roles. In social encounters, it is possible that these biases may translate into differential evaluation of and interaction with male versus female drinkers. How these biases affect social evaluation and interaction are useful foci for future research. Differentiated expectancies regarding alcohol's effects on male versus female drinkers may contribute to understanding cross-gender altercations such as rape and domestic violence that are frequently associated with drinking.

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