Mood Effects of Alcohol

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Abstract. Doses of 0.41, 0.63, and 0.85 g alcohol/kg body weight were administered using a double-blind Latin square design to subjects who made mood ratings at seven points in time during 3 h subsequent to administration. The subjects felt more euphoric and extraverted and less tense at mainly the highest dose levels. Lower dose levels tended to induce more negative feelings. Frequent consumers of alcohol derived greater affective benefit than rare drinkers. Inter-correlations between ratings of subjective intoxication and mood variables indicated that the meaning of the variable 'subjective intoxication' was different for the three dose levels and for different points in time.

Key words: Mood - Alcohol - Subjective intoxication

Alcohol is assumed to be the most commonly used drug both historically and cross-culturally for the alleviation of emotional discomfort and for relaxation. A beneficial effect on anxiety and tension states is believed to accompany and account for its consumption. According to Cappell and Herman (1972), the tension reduction hypothesis enjoys a good record of confirmation only in the literature on conflict and experimental neurosis (Conger, 1951; Masserman and Yum, 1946; Smart, 1965), while in other areas the hypothesis did not fare very well. Most of the research surveyed by Cappell and Herman (1972) concerns, however, behavioral studies on animals.

With human subjects and self-ratings, alcohol in moderate doses usually produces initial feelings of reduced tension and euphoria (Ekman et al., 1964; Goldberg, 1966; Lindman and Taxell, 1976; Mayfield and Allen, 1967; Smith et al., 1976; Williams, 1966). But unequivocal results have been reported with self-reports as well. Williams (1966) found that the decrease of self-reported anxiety and depression at moderate doses of alcohol reversed at higher doses, rising nearly to baseline levels. The author concluded that at low doses the tranquilizing effects of alcohol remove normally prevailing inhibitions and restraints, so that emotional stimulation (feeling 'high') is the most apparent feature. With increasing dose levels, however, the tranquilizing effect builds up, resulting in a progressive impairment of functioning and prevalence of negative feelings (Pohorecky, 1977). Similar results (i.e., negative moods) were obtained by Takala et al. (1957), Warren and Raynes (1972), and Kalin (1972).

The importance of situational characteristics in accounting for such mood effects has also been stressed repeatedly (Kalin et al., 1965; Smith et al., 1975). A laboratory or hospital setting, IV injections, etc., may create anxiety and prevent the otherwise expected effects of tension release and euphoria. Furthermore, Ekman et al. (1964) found that the euphoric state was observed primarily during the absorption phase and was followed by drowsiness and tiredness during the elimination phase.

These results indicate that subjective feelings during alcohol intoxication are different with respect to the size of the dose, time of mood measurement, and situational characteristics. Thus, prediction of effects is difficult but positive effects should be expected more often in relaxed, natural social interactions. The self-rated degree of intoxication may similarly reflect quite different subjective states in different circumstances. If this is the case, results such as those obtained by Ekman et al. (1964) concerning subjective intoxication need to be interpreted in this light.

Differences between the subjects are also important. Mayfield and Allen (1972) found that alcohol generally altered subjects' affective states in a positive direction, but depressed patients improved dramatically while...
The mean values of BAC under the three dose conditions are shown in Fig. 1. The results concerning BAC are comparable to earlier research (Ekman et al., 1964), except for the mean time of maximum BAC to occur, especially with the smallest dose. In the study by Ekman et al. (1964) it was found that the mean time from the start of drinking to the occurrence of the maximum BAC (0.44 g alcohol/kg) was approximately 40 min.