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### Resource loss, coping, alcohol expectancies and drinking in students

*The aim of the study was to find relationships between resource loss treated as a stress indicator, coping, alcohol expectancies and drinking in college students. Results of a group of 125 first and second year students showed that there was a strong relationship between alcohol consumption and expectancies connected with alcohol. Some coping forms were also related to drinking but no relationship was found for resource loss.*

**Keywords:** stress, coping, alcohol expectancies, drinking habits, students

#### Introduction

Psychological studies and theories aimed at explaining factors contributing to alcohol consumption usually focus on two major elements namely stress and expectancies connected with the use of alcohol. The point of view according to which people drink to cope with stress is now widely accepted since it got strong empirical support (Evans & Dunn, 1995). On the other hand it is often emphasized that subjects expecting positive outcomes of alcohol use are more inclined to drink – this viewpoint is recognized as ‘expectancy theory’ (Goldman, 1989). Research on these relationships had to include students since the ways of alcohol consumption in young adults are thought to be responsible for future drinking problems and dependence. That is why they focused attention of many studies in which these two major factors contributing to drinking were analyzed (Aas, Leigh, Andersen & Jakobsen, 1998, Cooper, Russell & George, 1988).

#### Resource loss, stress and drinking

According to conservation of resources theory by Hobfoll (1989) resource loss is a major factor triggering stress response. Studies by Hobfoll and Lilly (1993) showed, that the degree of resource loss was related to the indices of psychological stress like anxiety and depression. Since alcohol has strong tension and anxiety reducing properties (Gossop, 1994) it is taken more often and more easily in stress. Alcohol drinking is considered by many authors as a maladaptive coping strategy (Cooper et al. 1998) and it was even distinguished as a separate factor in

a coping inventory developed by Carver (Carver, Scheier & Weintraub, 1989). Alcohol usage appears as an item included in emotion focused coping factors in many other questionnaires, for example WCQ by Folkman and Lazarus (1985). On the other hand attribution of stress to alcohol abuse is confirmed in clinical observations (Gossop, 1994). Alcohol use and misuse were found to be positively associated with depression (DeSimone, Murray & Lester, 1994, Pullen, 1994, Workman & Beer, 1989) or trait and state anxiety (Trindade & Correia, 1999, Pullen, 1994). Study by Cooper et al. (1998), in which a model relating drinking to cope, expectancies and general coping skills to alcohol use and abuse was tested indicated that reliance on drinking as a coping strategy was the most powerful explanatory variable. Laurent, Catanzaro and Callan (1997) found that the level of stress measured as a number of reported negative daily events was a strong predictor of drinking to cope. There were also other empirical studies indicating that people drink to cope with the stresses of their everyday life and to improve their well-being (Cahalan, Cisin & Crossley, 1969).

#### Alcohol expectancies and drinking

A theory emphasizing the meaning of individual’s expectancies concerning the effects of alcohol in explaining alcohol consumption was formulated by Goldman (1989, Goldman, Brown & Christiansen, 1987). According to it persons having positive expectancies concerning the immediate effects of alcohol, like sexual enhancement, social and physical pleasure or relaxation, tend to drink more alcohol and thus are more prone to alcohol abuse and

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dependency. Expectancy model has become very popular in research on alcohol use and expectancies have been found to be an important determinant of drinking behavior and problems in many empirical studies (Carey, 1995, Williams & Ricciardelli, 1996, Evans & Dunn, 1995, Cooper et al. 1988, McLaughlin Mann, Chassin & Sher, 1987). Aas et al. (1998) showed that the relationship was different at early and subsequent stages of drinking analyzed longitudinally. In students who began drinking during the study positive expectancies influenced alcohol use but there was also an opposite influence of drinking on expectancies. In those students who had already been drinkers there was only unidirectional relationship, namely expectancies were longitudinal predictors of drinking. Similar results were found by Oei and Baldwin (1994). Prospective studies of Stacy, Widaman and Marlatt (1990), Christiansen, Smith, Roehling & Goldman (1989) or Bauman, Fisher, Bryan & Chenoweth (1985) confirmed the predictive power of expectancies on alcohol use but there were also studies indicating that positive expectancies may rather determine alcohol related consequences and dependence symptoms and not the consumption itself, measured a year later (Reese, Chassin & Molina, 1994).

Results based on a large group of Norwegian adolescents (Aas, Klepp, Laberg & Aaro, 1995) indicated that positive expectancies were also the predictors of the individual's intentions to drink alcohol over the following 12 months. Stacy et al. (1990) showed that positive expectancies were much stronger correlates and predictors of alcohol use than negative expectancies or attitudes.

The general aim of the study presented here was to show the relationships between resource loss, coping, alcohol expectancies and alcohol drinking in students. It was expected that students experiencing stronger stress connected with resource loss who applied less adaptive coping actions and had stronger positive expectancies concerning the effects of alcohol use would have higher level of alcohol consumption. Three hypotheses were put forward respectively. According to the first one alcohol consumption was positively related to the degree of resource loss. Since alcohol drinking is often treated as a maladaptive coping strategy the second hypothesis stated that use of alcohol was related to less adaptive coping strategies. The third hypothesis was formulated to include alcohol expectancies in the analyzed relationships and stated that alcohol use was positively related to individual's positive expectancies concerning the effects of alcohol.

## Method

### Participants

A group of 125 university students participated in the study. They were first and second year students of five years master's studies in sociology, law, history and economy.

There were 44 men and 81 women aged between 19 and 26 (mean 21.5). They were all single living with their families or in students' dormitories.

### Procedure

Students were recruited to the study during their classes. Experimenter appeared at the lecture and asked the students to participate voluntarily and anonymously in the research that was presented as concerning alcohol drinking habits and expectancies. They all agreed to participate and were then given a set of inventories to fill out. The total number of 131 sets was collected but 6 of them turned out to be incomplete and were excluded from further analysis.

### Measurement instruments

Resource loss and gain were measured with the use of Conservation of Resources Evaluation Scale developed by Hobfoll (Hobfoll, Lilly & Jackson, 1991). It contained a list of 74 resources that are expected to be comprehensive (Hobfoll & Lilly, 1993) and subjects were asked to rate from 1 to 5 the loss and gain that they experienced during the last year for each of 74 resources from the list. The scale has good psychometric properties with test-retest measures ranging from .55 to .67 (Hobfoll & Lilly, 1993).

Coping was measured with Strategic Approach to Coping Scale (SACS) developed by Hobfoll (Dunahoo, Hobfoll, Monnier, Hulsizer & Johnson, 1998). The general version of the scale was used to measure the forms of coping that were usually used by the subjects when facing stress. There are nine subscales measuring different forms of coping: assertive action, social joining, seeking social support, cautious action, instinctive action, avoidance, indirect action, antisocial action, aggressive action. Polish adaptation of the scale (Zabielski, Politynska, 1996) confirmed the nine factor structure of the original scale and showed good psychometric characteristics with alphas ranging between .74 and .89.

Alcohol expectancies were measured with a questionnaire developed by Wiers (Wiers, Hoogveen, Sergeant & Gunning, 1997) with two scales concerning positive and negative expectancies. Factor analysis of the Polish version confirmed the two factor structure of the scale and revealed factors very similar to the original with Cronbach alpha .93 for positive expectancies subscale and .82 for negative expectancies subscale (Łosiak, 1998)

Alcohol consumption was assessed with the use of the rating scale on which the subjects were asked to estimate the number of standard glasses of alcoholic beverages that they drink in an average week (the description of a standard glass was given as follows: .33 l of beer, .1 l of wine or .025 l of vodka).

**Table 1**  
Descriptive statistics of the study variables – raw scores (N 125).

| Variable   | Mean   | SD    |
|--|--------|-------|
| Alcohol consumption (number of standard glasses) | 3.82   | 5.71  |
| Resource loss                                    | 123.58 | 45.56 |
| Resource gain                                    | 172.83 | 44.24 |
| Assertive action                                 | 27.18  | 3.94  |
| Social joining                                   | 15.96  | 3.0   |
| Seeking social support                           | 22.7   | 4.99  |
| Cautious action                                  | 16.75  | 2.88  |
| Instinctive action                               | 18.4   | 4.25  |
| Avoidance  | 15.5   | 4.52  |
| Indirect action                                  | 11.38  | 3.2   |
| Antisocial action                                | 11.82  | 3.88  |
| Aggressive action                                | 14.32  | 3.88  |
| Positive expectancies                            | 72.42  | 22.33 |
| Negative expectancies                            | 27.44  | 8.16  |

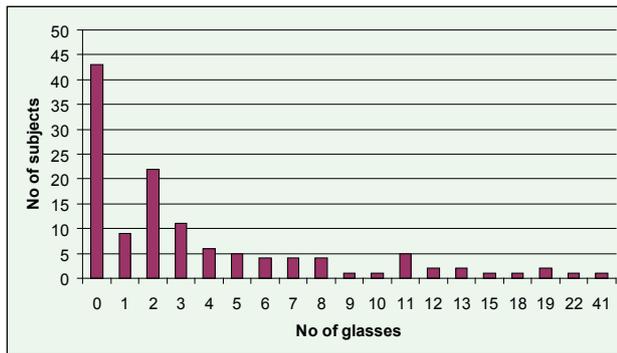


Figure 1. Alcohol consumption measured with the declared amount of standard glasses drunk in an average week in students' sample.

## Results

Descriptive statistics for the analyzed variables are given in Table 1. For alcohol consumption variable a histogram is added (Figure 1) in which it is clearly visible that there was a group of 43 subjects who claimed not to drink alcohol at all. Moreover the distribution of this variable is far from normal. Both things will be considered in further analysis.

Since there was a significant group of students who declared not to drink alcohol at all a comparison of this group with the others who reported to drink was performed first and results are given in Table 2.

There were significant differences in resource loss, coping and negative expectancies between the two groups. Students who declared not to drink alcohol had stronger negative expectations connected with alcohol use and applied social joining coping strategy more frequently than those students who admitted to drink. Surprisingly they also had higher degree of resource loss.

Considering the fact that the study was aimed at finding relationships between alcohol drinking and its psychological determinants the group of subjects who declared not to drink alcohol at all was excluded from further analysis. Also the variable measuring alcohol consumption was transformed in order to obtain its normal distribution. The logarithmic transformation was applied.

Hierarchical regression analysis with alcohol consumption as dependent variable was performed in three steps. In the first one resource loss and gain were introduced, in the second one – nine forms of coping and positive and negative alcohol expectancies in the third one. Results are given in Table 3.

Significant relationships were found for alcohol expectancies, both positive and negative, and two forms of coping, assertive and instinctive actions. Students who

**Table 2**  
Comparison of the results of students who declared not to drink alcohol with those who admitted to drink (one way ANOVA).

|                        | Drinking (n 82) |       | Not drinking (n 43) |       | ANOVA  |      |
|------------------------|-----------------|-------|---------------------|-------|--------|------|
|                        | Mean            | SD    | Mean                | SD    | F      | Sig. |
| Resource loss          | 116.34          | 40.45 | 137.4               | 51.73 | 6.279  | .01  |
| Resource gain          | 170.34          | 43.42 | 177.58              | 45.89 | .754   | .39  |
| Assertive action       | 26.73           | 3.58  | 28.02               | 4.46  | 3.087  | .08  |
| Social joining         | 15.39           | 2.92  | 17.05               | 2.88  | 9.139  | .003 |
| Seeking social support | 22.68           | 5.35  | 22.74               | 4.27  | .004   | .95  |
| Cautious action        | 16.46           | 2.98  | 17.3                | 2.61  | 2.419  | .12  |
| Instinctive action     | 17.9            | 4.3   | 19.35               | 4.02  | 3.325  | .07  |
| Avoidance              | 14.72           | 4.69  | 16.98               | 3.8   | 7.398  | .007 |
| Indirect action        | 11.2            | 3.41  | 11.74               | 2.73  | .829   | .36  |
| Antisocial action      | 11.94           | 4.16  | 11.6                | 3.3   | .208   | .65  |
| Aggressive action      | 14.63           | 4.02  | 13.72               | 3.58  | 1.563  | .21  |
| Positive expectancies  | 75.07           | 21.03 | 67.37               | 24.07 | 3.42   | .07  |
| Negative expectancies  | 25.6            | 7.27  | 30.93               | 8.71  | 13.144 | .000 |

**Table 3**  
**Factors related to alcohol consumption. Results of hierarchical regression analysis with alcohol consumption as a dependent variable (number of glasses – logarithmic transformation, n 82).**

|                        | Beta | Sig. | R2   | F     | Sig. |
|------------------------|------|------|------|-------|------|
| Step 1                 |      |      |      |       |      |
| Resource loss          | .15  | .19  |      |       |      |
| Resource gain          | .11  | .34  | .034 | 1.398 | .25  |
| Step 2                 |      |      |      |       |      |
| Assertive action       | -.09 | .52  |      |       |      |
| Social joining         | -.20 | .13  |      |       |      |
| Seeking social support | -.15 | .25  |      |       |      |
| Cautious action        | .07  | .59  |      |       |      |
| Instinctive action     | .31  | .02  |      |       |      |
| Avoidance              | -.15 | .27  |      |       |      |
| Indirect action        | .34  | .04  |      |       |      |
| Antisocial action      | -.18 | .37  |      |       |      |
| Aggressive action      | .02  | .9   | .241 | 2.023 | .04  |
| Step 3                 |      |      |      |       |      |
| Positive expectancies  | .35  | .004 |      |       |      |
| Negative expectancies  | -.33 | .001 | .417 | 3.746 | .000 |

reported to drink more alcohol had stronger positive and weaker negative expectations connected with the effects of alcohol consumption compared to those who reported to drink less. They also had stronger tendency to engage in instinctive actions when coping with stress. On the other hand those who reported lower consumption were more inclined to use assertive action.

In spite of expectations no significant relationships were found for resource loss which appeared to be irrelevant for alcohol consumption in the analyzed group of students. Some explanation of this rather unexpected result could be found when a new variable namely the balance of resources was calculated (resource gain minus resource loss). Frequency analysis indicated that only 18.3 % of subjects had negative resource balance and even fewer at a more significant level. Moreover, mean for resource gain in the whole group was higher than for resource loss (see Table 1). These two findings may be interpreted that the gross majority of the subjects experienced no stress in terms of COR theory.

## Discussion

What appeared from the results most clearly was that alcohol consumption was related to expectancies concerning its effects. Positive expectancies, beliefs that use of alcohol improves one's well-being and functioning were related to higher alcohol consumption. On the contrary negative expectations served rather as inhibitors since they were negatively related to alcohol consumption. Moreover students who declared not to drink alcohol at all had stronger negative expectations than those who admitted to drink. Thus the second hypothesis of the study was fully confirmed. Results have given strong support to

the expectancy theory of alcohol use (Goldman, 1989) and cognitive paradigm in psychology in general.

Increased alcohol consumption appeared to be related to only one less adaptive coping form – instinctive action, which is classified by Hobfoll as asocial (Dunahoo et al., 1998). The second significant relationship concerns assertive action treated as prosocial and in this case it was negatively related to drinking. The second hypothesis found some support then but it seems that there are many forms of coping that are applied quite independently from drinking. Since alcohol use itself can be an effective coping strategy especially in short term it is possible that many subjects limited themselves to applying only this form.

The strongest negative result of the study concerned the first hypothesis which found no support at all. Data indicate that there was no relationship between alcohol consumption and resource loss in the examined group of students. The problem however does not seem to be related to the group specificity. More probable explanation attributes this negative result to the fact that most of the subjects did not experience resource loss and thus were not stressed. Thus although theoretical and empirical postulates relating alcohol consumption to stress (Evans & Dunn, 1995) were not confirmed they were not falsified either. It seems that the hypothesis could not be verified due to the distribution of the resource loss variable.

Comparison of the group of students who declared not to drink alcohol at all with those who admitted to drink shows some specificity of non-drinkers. They had stronger negative expectations concerning the effects of alcohol use which probably served as drinking inhibitors but did not differ from drinking students in the intensity of positive expectancies. Moreover, the differences in coping were not the same as between students drinking less and more. Non-drinkers were more inclined to avoidance which is rather maladaptive and at the same time to social joining classified by Hobfoll as prosocial and adaptive (Dunahoo et al., 1998). Rather unexpectedly, they also reported greater resource loss than drinking subjects and this is not in favor of “stress – drinking” hypothesis. The answer again is probably in the resource gain level which was rather high in the whole group and made the resource balance more positive.

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