

Title: A “Modest” Research Proposal on Alcohol Experimentation

**Author:** Peter Finn, in *Research Ethics: Cases and Materials*, edited by Robin Levin Penslar, Indiana University Press, 1995

**Description:** Researchers want to examine the relative contributions of the pharmacological effects of alcohol and the belief that one has consumed alcohol on aggressive behavior in a controlled experiment. Researchers plan to deceive subjects regarding the type of beverage (alcoholic or non-alcoholic) they receive and the true purpose of the experiment. Following the experiment, subjects will be debriefed regarding the deception, the type of beverage they received, and the true purpose of the study.

**Headings:** Informed Consent: Disclosure and Deception; Deception (debriefing, illusions)

**Case Type:** Decision making

### A “Modest” Research Proposal on Alcohol Experimentation

#### *Purpose*

Crime statistics consistently reveal a relationship between aggressive behavior and alcohol consumption. For example, approximately 50 percent of all rapes and 40 percent of murders and cases of child abuse are associated with alcohol intoxication (Eckard et al. 1981). Despite these statistics, the precise mechanisms (psychological or pharmacological) that mediate this relationship are not known. A relatively large body of data indicates that many of alcohol’s psychosocial effects are mediated by the person’s *belief* (expectancy) that he or she has consumed alcohol rather than by the pharmacological effects of the drug per se.

The purpose of this study is to examine the relative contributions of the pharmacological effects of alcohol and the belief that one has consumed alcohol on aggressive behavior in a highly controlled experimental context. The design of the experiment, outlined below, will enable us to test the following hypotheses:

- 1) The *belief* that one has consumed alcohol may lead to increased aggression, regardless of whether the individual *actually* has consumed alcohol (referred to as an expectancy effect).
- 2) Alcohol alone may increase aggression even when the individual does not know that she or he has actually consumed alcohol (a purely pharmacological effect).
- 3) Some combination of the expectancy and pharmacological effects results in increased levels of aggression.

The experimental design that can address these important questions is referred to as the “balanced-placebo” design, where an alcoholic or nonalcoholic beverage is administered to subjects in one of four different manners (beverage conditions):

- 1) Subjects are told they will be receiving alcohol (vodka and tonic) and actually receive the alcohol (expectancy and pharmacologic effect).
- 2) Subjects are told they will get an alcoholic beverage and actually receive only tonic (expectancy only).

- 3) Subjects are told they will receive a tonic and actually get a vodka and tonic (pharmacological effect only).
- 4) Subjects are told they will receive only a tonic and get only a tonic (neither effect).

Central to this type of design is the successful deception of subjects in conditions 2 and 3. Subjects are not informed of any deception prior to participation. The consent form will indicate that the subject agrees to drink either a vodka and tonic beverage or a tonic water beverage.

### *Procedures*

Sixty-four male nonalcoholic subjects between the ages of 21 and 25 will be recruited for this project through a newspaper advertisement requesting responses from male social drinkers in this age group interested in participating in paid research at State University's Department of Psychology. (The study arbitrarily uses all males because of the desire that the subject population be homogeneous.) Each subject calling in response to the advertisement will first be screened on the telephone to determine that:

- 1) he meets the age requirements;
- 2) he drinks alcohol regularly, but not in excess of four occasions per week and six drinks per occasion;
- 3) he has not been arrested for any type of offense, received treatment for alcohol problems, or experienced other alcohol-related problems; and
- 4) he has not received treatment for any type of psychological disorder.

If a subject fulfills these criteria, he will be scheduled to come to the laboratory and will be told that he must bring at least two pieces of identification verifying his age.

Prior to participation in the actual experiment, all subjects will read and sign a consent form outlining the procedures of the experiment, will have their ages verified (a staff person will examine the two pieces of identification), and will complete a standardized questionnaire that will further screen for the presence of alcohol abuse. Subjects will then participate in a hearing test and a test to determine the loudness level at which a specific tone is uncomfortable to the subject. All subjects will be paid \$5.00 per hour for their participation. Subjects will be told that they can withdraw from the experiment at any time.

The 64 subjects will be randomly assigned to one of the four beverage conditions of the balanced-placebo design described above. After instructions are given for the task (see below), subjects will receive their drink and be required to consume it within ten minutes. For subjects receiving alcohol, the actual volume (dose) of alcohol given to each subject is determined based on body weight and calculated so as to bring his blood alcohol level up to 0.05 percent. Such a dose is below the legal intoxication limit but enough to make the individual mildly intoxicated. After consuming the alcohol, each subject will undergo an identical testing situation designed to examine aggressive behavior.

### *Aggression Test*

Subjects will be told that they will be participating in a reaction-time/pain-perception test with a partner-subject in another room. Subjects will be seated in a test room in view of a video camera. They will be told that the video camera is used to allow the partner to monitor the instructions being given to the subject. (The camera actually records the subject for later study by the investigators.) The subject will be instructed that there are actually two experiments being conducted, one that measures reaction time, for which he is a subject, the other measuring pain perception and endurance, for which the other individual (partner) is a subject.

In summary, the instructions state that during the experiment, the partner will present a particular tone to the subject indicating that a reaction-time trial will commence. Five seconds later, a light will flash on a console, after which the subject is to press any one of five buttons (numbered 1 to 5) as fast as possible. A button press will deliver a shock to the partner. (Button 1 is a barely perceptible shock; buttons 2-5 activate increasingly painful, but not harmful, shock levels.) The nonharmful nature of the shocks and the possibility of pressing only shock button 1 will be clearly stated to the subjects. After receiving a shock, the partner will allegedly signal the degree of pain experienced by activating one of five tones of differing loudness levels. (In actuality, the computer generates a tone of a loudness level (1 through 5) that corresponds to the shock intensity level delivered by the subject.) The loudness levels increase, so that tone 5 is five decibels louder than the level previously determined to be uncomfortable for the subject. The subject will also receive feedback by means of five lights on a console. The lights indicate the loudness level of the tone delivered by the partner. The experiment will include 22 reaction-time/pain-perception trials.

After receiving these instructions, the subject will observe a video monitor where he will see instructions being given to the alleged partner. In actual fact, there is no partner; rather the instructions to the partner are pre-recorded using a bogus partner. The entire reaction-time task will be conducted with the subject interacting with a computer. The subject will actually not deliver the shocks to anyone. The video monitor and camera are present only for the purpose of deceiving the subject into thinking that another person in the next room will be receiving the shocks (and for recording the subject for later study by the investigators).

After instructions have been given to the subject and his alleged partner, the video monitor will be turned off the subject will consume his beverage and have his breath-alcohol content measured with a breathalyzer. Then the aggression test will begin. The measures of aggression will be both the length of time that a subject presses a shock delivery button and the level of shock that the subject chooses.

Following the experiment, each subject will be debriefed. Subjects will be informed that they were deceived, that they did not deliver a shock to anyone, and that their behavior (shock deliver) was completely normal. Subjects will be given the opportunity to express how they feel about having been deceived. In addition, the subjects will be told that deception was necessary in order to determine the answer to the important question of whether the psychological factor of alcohol expectancy influences aggressive behavior.

**Would you approve the use of deception in this study, and if so, what should participants be told in the informed consent process?**