Assessing Implicit Attitudes about Alcohol

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Abstract

The current study evaluated a modified version of the Implicit Associations Test called the Single-Category Implicit Associations Test, or SC-IAT (Karpinski, 2006, study 1) using a sample of 20 adults and their children. Overall, participants were found to have generally negative attitudes about alcohol. However, consistent with our expectations, alcohol use was associated with implicit attitudes such that those who were heavy or frequent drinkers had more positive attitudes than participants who either abstained or drank infrequently. Additional analyses demonstrated acceptable internal consistency and low error, anticipation, and nonresponse rates. In sum, the SC-IAT appears to be a promising tool for assessing implicit alcohol attitudes in children and adults.

Introduction

Past research has found that individuals who have positive attitudes about alcohol are more likely to drink than individuals who hold negative alcohol attitudes. Developing measures to accurately assess alcohol attitudes, however, has been challenging. For instance, self-report measures are subject to a variety of response biases such that participants may be unwilling or unable to report their feelings about alcohol or may be motivated to alter their reported attitudes to avoid perceived negative evaluation by the experimenter. This may be particularly true of children, for whom alcohol use is an illegal activity. Thus, self-reports may not accurately reflect the participants’ attitudes. In response to criticisms about the reliability and validity of self-report measures, several tasks have been developed that do not require conscious introspection (e.g., priming task). Of these implicit measures, perhaps the most prevalent within the social sciences is the Implicit Associations Test (IAT; Greenwald, McGhee, & Schwartz, 1998). Not only is this measure flexible with regard to the types of attitudes it is capable of assessing, but it is also easy to implement, and lends to show strong effect sizes (Nisbett, Greenwald, & Banaji, 2006). Despite these strengths, the IAT has received some criticism for its dual-categorization design. That is, in order to examine attitudes about a particular object, one must find either a dichotomously opposed group (e.g., republicans vs. democrats) or a “neutral” comparison category (e.g., alcohol vs. soda). This may be limited because for some areas of interest (e.g., alcohol use), the best comparison category is not always clear. Also, because the IAT is a measure of relational attitudes, in the dual-category IAT, attitudes scores reflect implicit attitudes in comparison to some other object or category. This limits the conclusions that can be drawn from dual-category IAT measures.

To address these limitations, a modified version of the IAT called the Single Category Implicit Associations Test or SC-IAT, was developed (Karpinski & Steinman, 2006, study 1). The SC-IAT differs from the traditional dual-category IAT in that only a single attitude object is examined. For instance, if a researcher is interested in studying attitudes about a particular brand of cola, then instead of trying to find an equally popular soft drink to serve as a comparison category, the SC-IAT could be designed so that participants would categorize stimuli as either valenced words (e.g., positive words, negative words) and pictures of the object of interest. This is an important addition to the literature as taking evaluative associations with a single attitude object eliminates some of the ambiguity that arises when interpreting dual-category IAT scores (e.g., whether a high IAT score represents strong positive associations for both categories or stronger positive associations for the other category; Karpinski & Steinman). Only one study was found that examined the utility of the SC-IAT for assessing implicit attitudes; however, preliminary results are comparable to Greenwald and colleagues’ measures.

Results

Participants

Sample recruited from list of parent-child dyads who had participated in a prior study in Karpinski and Steinman’s SC-IAT (2006, study 1). Specifically, participants were informed that they would be presented with pictures of alcohol, “good” words (e.g., happy, enjoyment, laughter), and “bad” words (e.g., dying, terrible, broken) and that they would need to press one of two buttons, depending on whether they saw or heard to categorize the stimuli as either positive or negative. A thousand pairs of words were used to counterbalance the presentation of positive and negative words. The order in which these stages were presented was randomized across participants to control for potential order effects.

Measures

Frequency of Alcohol Use

- Participants were asked to indicate how many days in the past 30 days they had at least a single drink of alcohol. This item was open-ended and was scored so that high numbers indicated frequent alcohol use.

Quantity of Alcohol Use

- Participants were asked to indicate approximately how many drinks they had each time they drank alcohol in the past 30 days. This item was scored such that high numbers indicated heavy drinking.

Implicit Alcohol Attitudes

- Implicit alcohol attitudes were assessed using a modified version of Karpinski and Steinman’s SC-IAT (2006, study 1). Specifically, valenced words were presented on the same key and in the other category, “bad” words and pictures of alcohol were mapped on the same key and in the other stage, “good” words and pictures of alcohol were mapped on the same key. The order in which these stages were presented was randomized across participants to control for potential order effects.

- Throughout the task, participants received feedback on their performance. If they were correct, a green ‘O’ would appear. If they were incorrect, a red ‘X’ would appear. Participants who responded before the stimulus appeared on the screen or did not respond faster than 1500 ms were presented with either the message “Please wait for the stimulus” or “Please respond more quickly.”

- After eliminating participants who responded incorrectly to more than 20% of the trials (N = 20 adults, 1 child), implicit attitude scores (i.e., d-scores) were calculated by subtracting mean response times during trials in which alcohol pictures were paired with good words from mean response times during trials in which alcohol pictures were paired with bad words. This measure was scored so that positive d-scores indicated positive alcohol attitudes, negative d-scores indicated negative alcohol attitudes, and d-scores close to zero indicated neutral alcohol attitudes.