



# Alcohol Sensitivity and Attention Allocation to Alcohol: Preliminary Results

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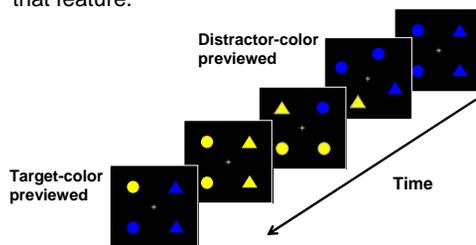
Research indicates that a low sensitivity to acute effects of alcohol is a risk factor for alcoholism (Schuckit, 1994). Using a sensitivity measure, Bartholow et al. (2007) have shown that individuals with low alcohol sensitivity showed different patterns of alcohol cue reactivity compared to individuals with high sensitivity. In the current study, we investigated how low sensitivity individuals differ from high sensitivity individuals in allocating attention to alcohol objects.

## Alcohol Sensitivity Measure

A self-report measure of sensitivity to the acute effects of alcohol consumption (O'Neill et al., 2002; internal consistency  $\alpha=.97$ ). 16 items: 9 ascending BAC effects (e.g., "Do you ever feel less inhibited after drinking alcohol?"); 7 descending BAC (e.g., "Do you feel nauseated after drinking alcohol?")

## The Distractor Previewing Effect (DPE)

Visual features that have been recently associated with the **absence** of a target increase subsequent search times for targets containing that feature.



**Task:** Color-oddball search task  
Report the shape of the oddball color item.

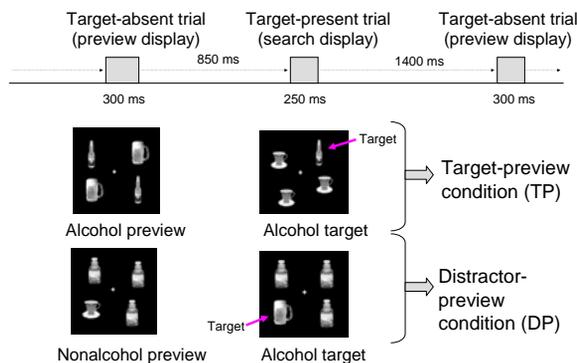
## Account of the DPE

Attentional bias against previewed features associated with unsuccessful searches (Lleras et al., 2008; Shin et al., in press)

## Aim, Methods & Results:

- Aim:** We investigated differential attention allocation to alcohol-related objects as a function of individual differences in alcohol sensitivity. Using the DPE paradigm, we tested if low sensitivity participants show a deficit in inhibiting focused attention to alcohol-related items.
- Predictions:** The DPE should be present among individuals with high sensitivity (HS) regardless of the categories of preview and target items, but should be smaller (or even absent) among individuals with low sensitivity (LS).
- Methods:** 19 young adults (9 LS, 10 HS; 9 women, 10 men) participated in the study. On each trial, a target-absent display was followed by a target-present display, in which the category of an oddball target or distractors was previewed in the preceding target-absent display. Participants were asked to respond based on the container type of the category-oddball (i.e., open or closed) in the target-present display.

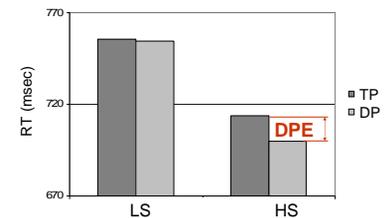
## Category-Oddball Search Task: Examples of trial types



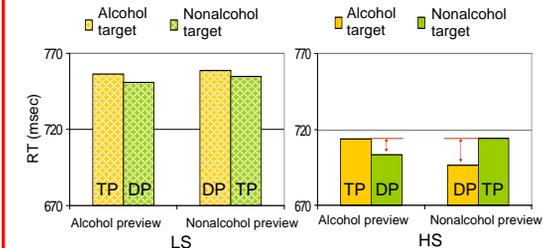
## 4. Results:

- Accuracy: LS: 91%; HS: 90%
- Reaction time (RT)

The DPE by group



The DPE by group, preview, and target object



## Conclusion

The DPE was found among HS, but was absent among LS, indicating that LS individuals have difficulty inhibiting attention allocation to alcohol-related objects.

## References

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