

## Introduction

• Addictive behaviors are strongly associated with poor response inhibition (Noël *et al.*, 2008) and attention bias and automatic approach tendencies for alcohol-related stimuli (Wiers *et al.*, 2007)

- Weak response inhibition for alcohol-cues is observed in alcoholics (Noël *et al.*, 2007)
- Brand name utilization influences the attentional bias for alcohol (Cox *et al.*, 2005)

⇒ Do heavy drinkers and alcoholics show a rapid automatic response for alcohol-cues?

⇒ Do heavy drinkers and alcoholics show a deficient capacity to inhibit an automatic response for alcohol-cues?

⇒ What is the influence of brand name?

## Method

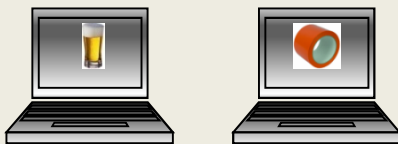
### Participants:

- 20 heavy drinkers (10 males) and 20 light drinkers (10 males)
- 22 alcoholics patients (14 males) and 22 pair social drinkers (14 males)

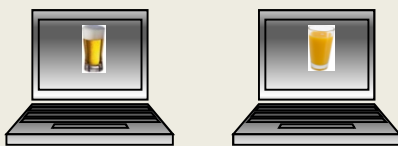
### GO-NOGO task modified for alcohol

- 75% GO trial and 25% NOGO trial
- with or without brand

### Examples of stimuli display



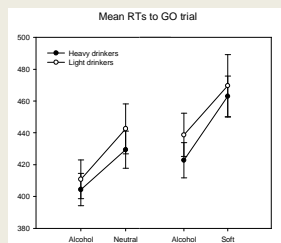
GO for alcohol drink vs NOGO for neutral object



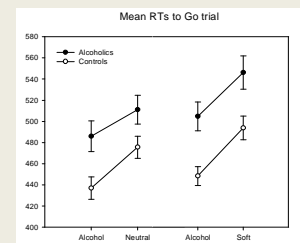
GO for alcohol drink vs NOGO for soft drink

## Results

### Reaction time

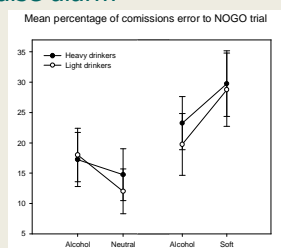


Alcohol cue < soft and neutral ( $p < 0.000001$ )  
No group difference

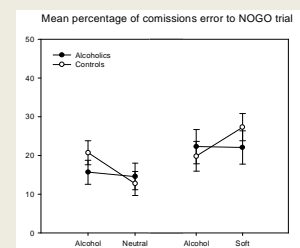


Alcohol cue < soft and neutral ( $p < 0.000001$ )  
Alcoholics > controls ( $p = 0.009$ )

### False alarm



Alcohol cue > neutral ( $p = 0.006$ )  
Soft cue > alcohol ( $p = 0.0002$ )  
No group difference



Alcohol cue < neutral ( $p < 0.03$ )  
No group difference

### Brand effect

Brand decreased RTs  
Brand increased false alarm for alcohol cues and decreased errors for neutral cues

## Conclusion

• All participants were faster to respond to alcohol drinks than soft drinks and neutral objects

⇒ Rapid automatic approach for alcohol in all populations

• Alcoholics were slower to respond to all stimuli

⇒ Speed cognitive process deficit in alcoholics patients

• All participants show a weak response inhibition for alcohol compared to neutral objects, but the opposite effect was observed when alcohol was compared with soft drinks in the non-alcoholic population

⇒ Generalization to all drink pictures in drinkers?

• Brand increased response rapidity but increased errors for alcohol

⇒ Stimulus features influence cognitive bias for alcohol

• No faster automatic response for alcohol-cues or weak response inhibition for alcohol-cues is observed in heavy drinkers or alcoholics