# The role of expectancy and pharmacology in alcohol related behaviour.

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# Expectancy theory

| | Short Term | Long term |
|---|---|---|
| +ve | Expectancy of drug administration<br><br>Expectancy of response to drug | |
| -ve | Expectancy of consequences consequences | |

Expectancy → Behaviour Modification

Two models: **placebo effect** and **compensatory response**

Source: Jones et al. 2001, Vogel-Sprott and Filmore 1999

# Research

- Balanced placebo design has been used extensively Marlett et al. (1973)

- Current research shows instruction can be more important in determining alcohol's effects in dependent and non-dependent drinkers

- Aim: use balanced placebo design to find roles of expectancy vs pharmacology in alcohol related impairment in bingers and non-bingers.

Source: Fillmore and Blackburn 2002, Vogel-Sprott and Fillmore 1999

# Method

- Within subjects balanced placebo design with four conditions
- Participants – some couldn't be used

## Measurements and Tasks

- Alcohol Expectancy Questionnaire (Fromme et al. 1993)
- Temptation & Restraint Inventory (Collins and Lapp 1992)
- Mood visual analogue scale (Duka et al. 1998)
- Immediate & Delayed Memory Task (Dougherty and Marsh 2003)
- Go-stop paradigm (Dougherty et al. 2003)

IMT

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⬇

35291

DMT

52678

12345

12345

12345

52878

**Go – stop paradigm**

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# Procedure

**Baseline**

AUseQ, AEQ, TRI

Mood VAS

- **Drinks & Instruction**

TAGA

TSGS

TAGP

TSGA

- Men: 0.6g/kg Women: 0.5 g/kg

**Tasks & Measures**

IMT, DMT, GNG

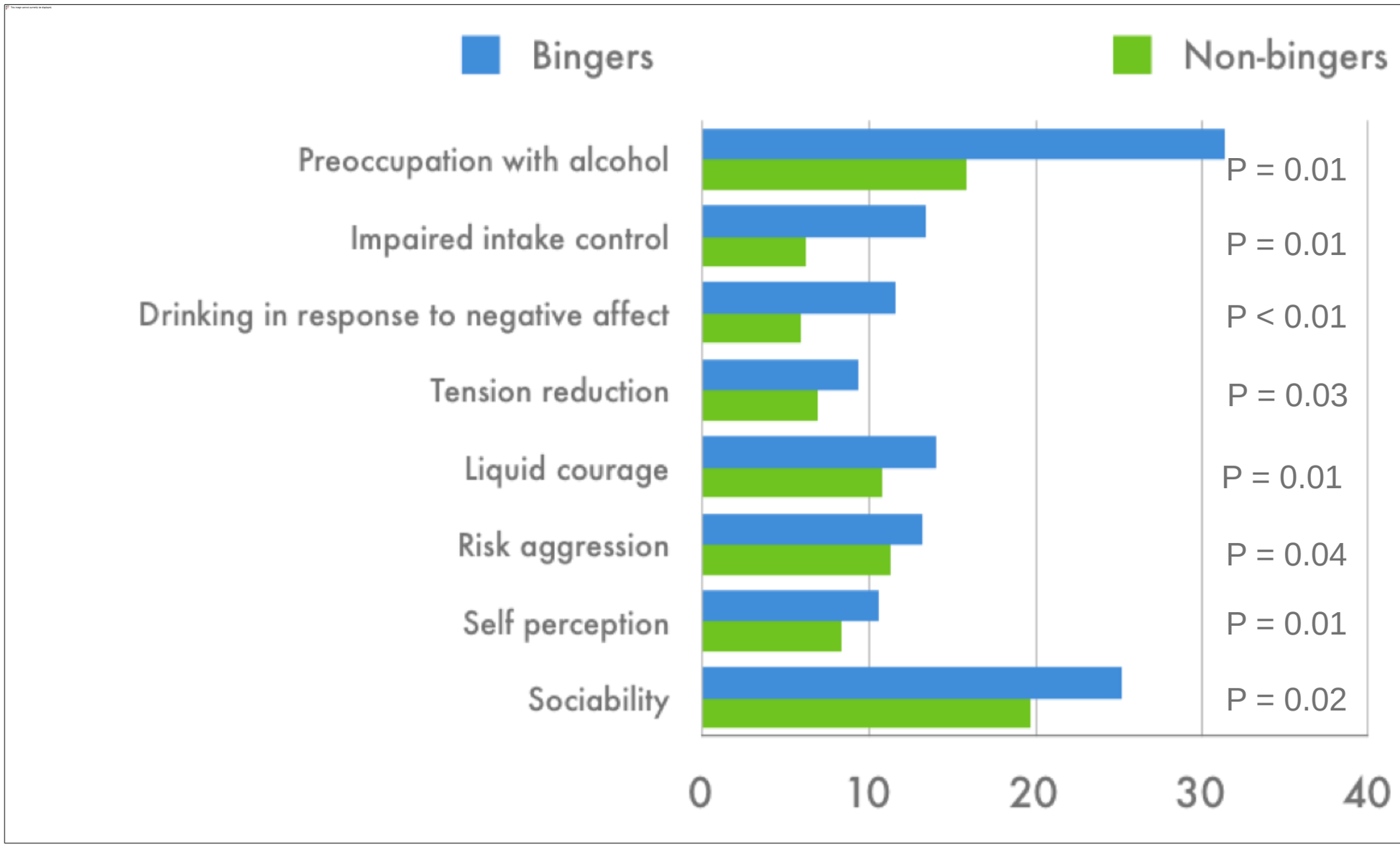
(counterbalanced)

Mood VAS,

(post task)

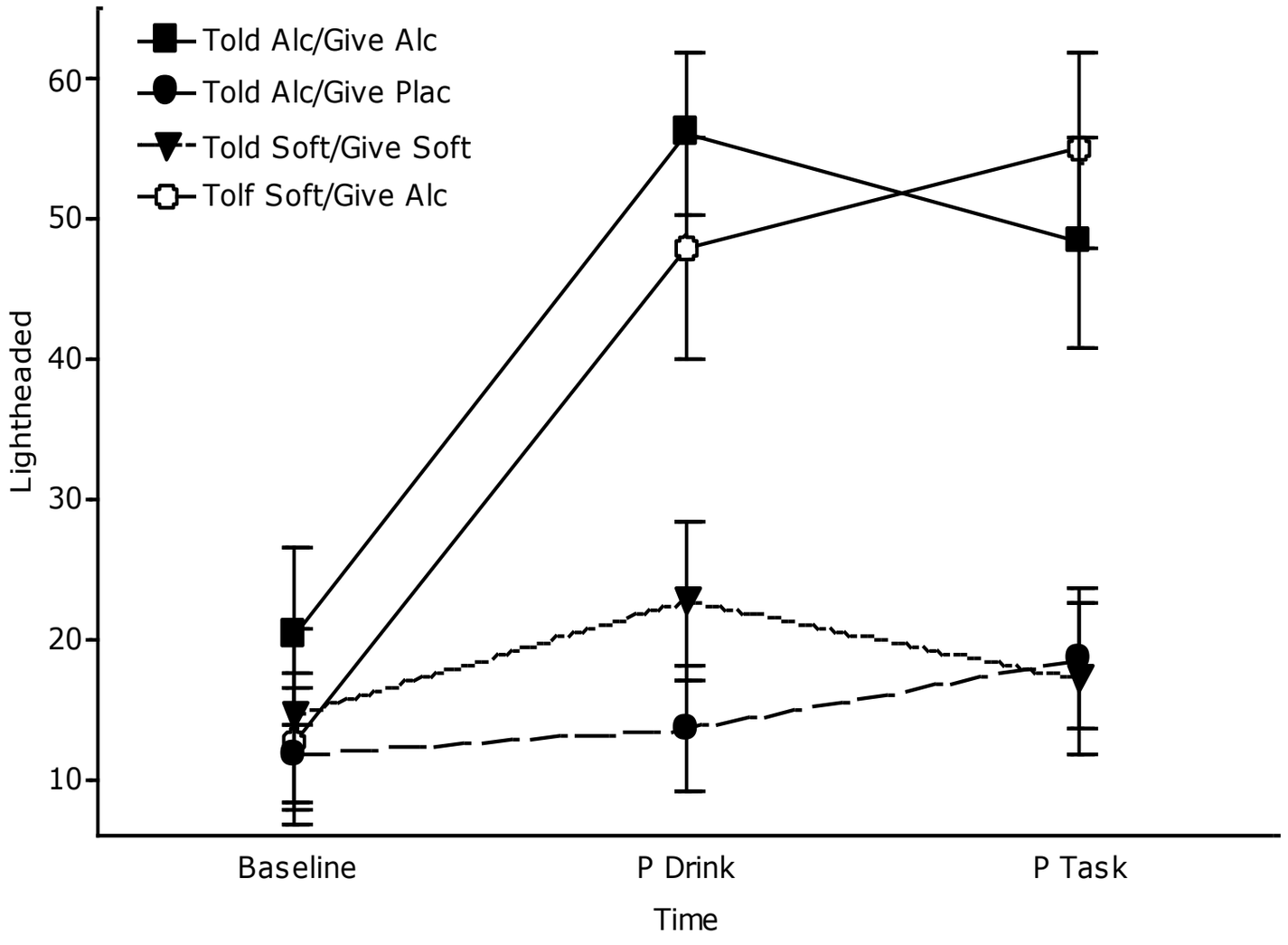
Mood VAS
(post drink)

# Results
# TRI and AEQ



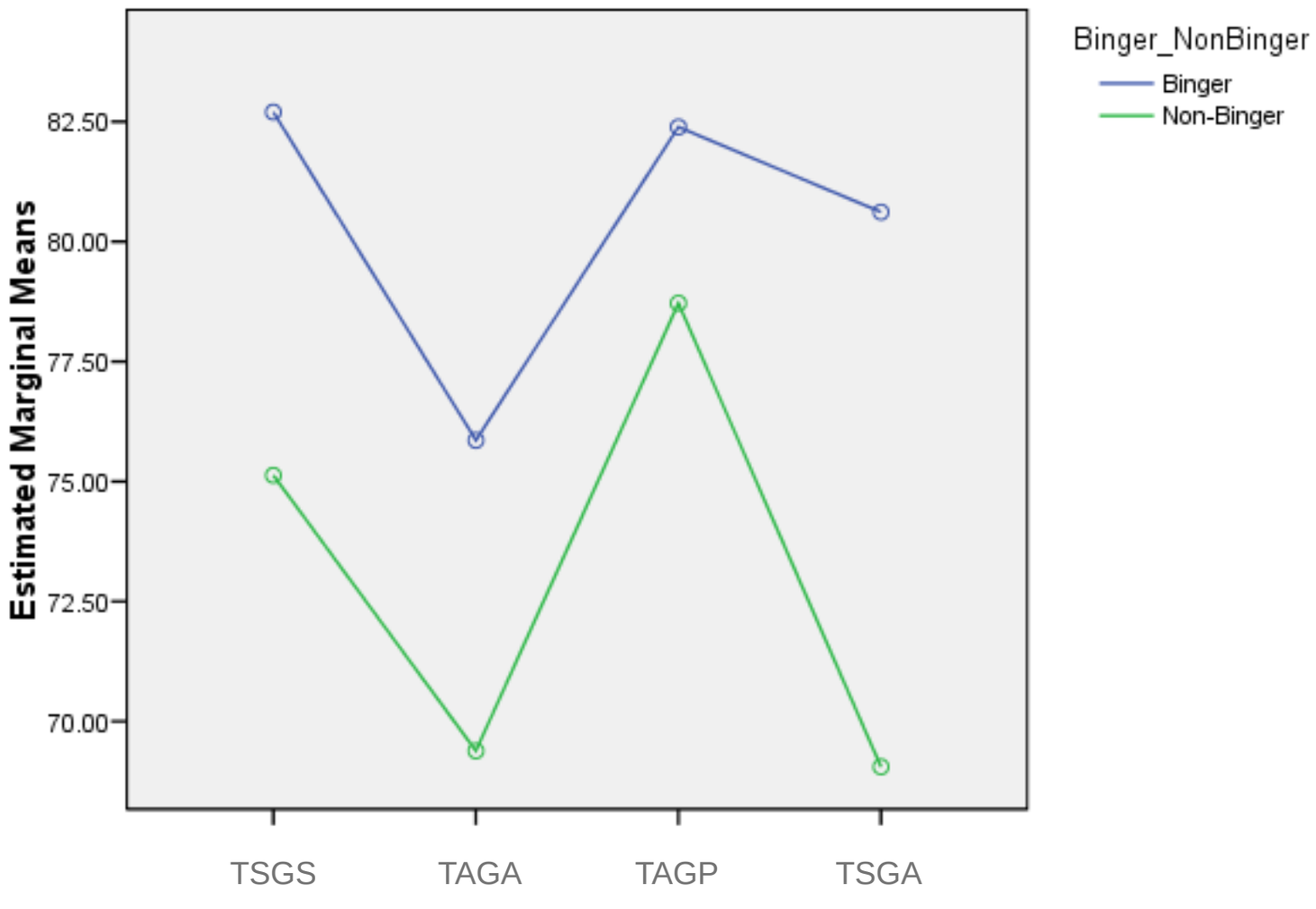

Pre-clinical stage of dependence?

# Results
# Lightheadedness



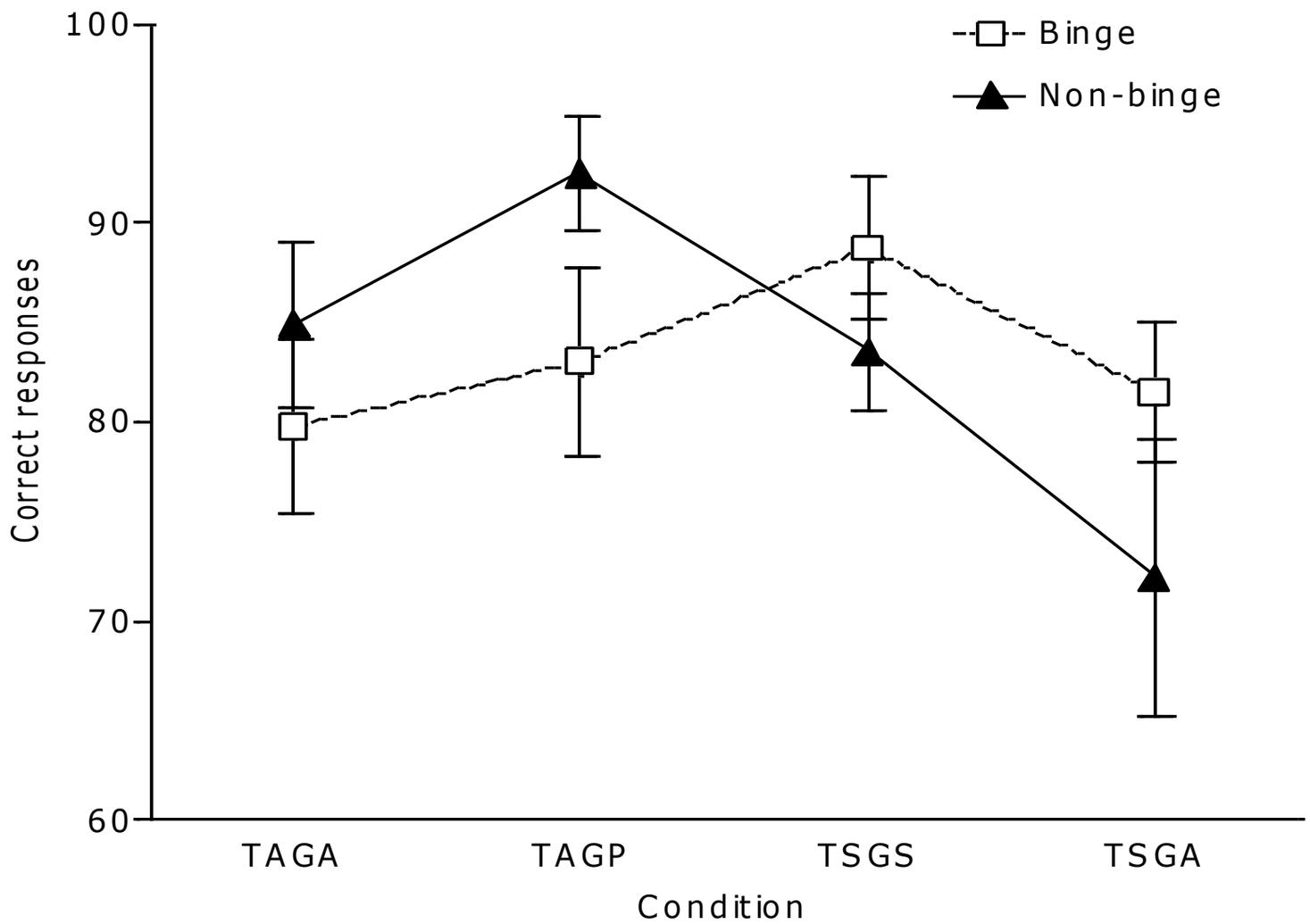

Subtraction analysis showed that non-binge drinkers were more lightheaded in the given alcohol conditions; binge drinkers did not show this effect of alcohol on lightheadedness ($p=0.03$)

# Results
# IMT correct responses



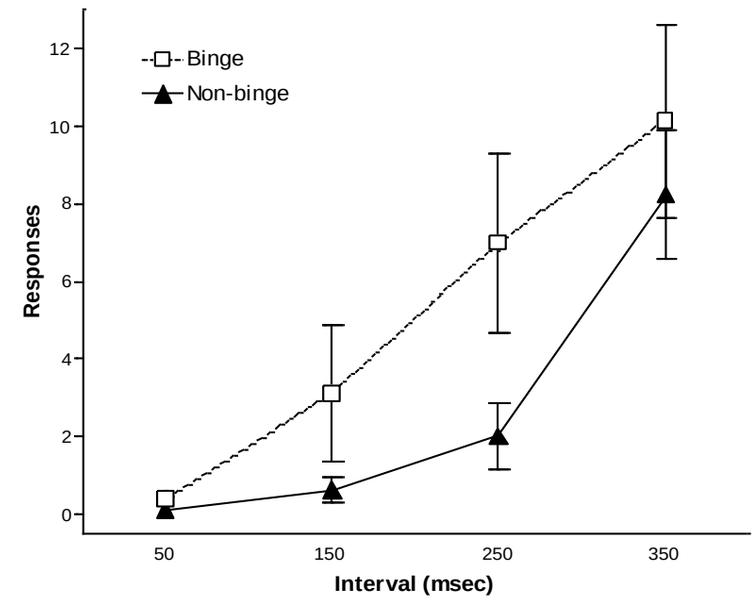

Alcohol consumption (men: 0.6g/kg, women: 0.5g/kg) decreased correct responding on the IMT ($p=0.011$)

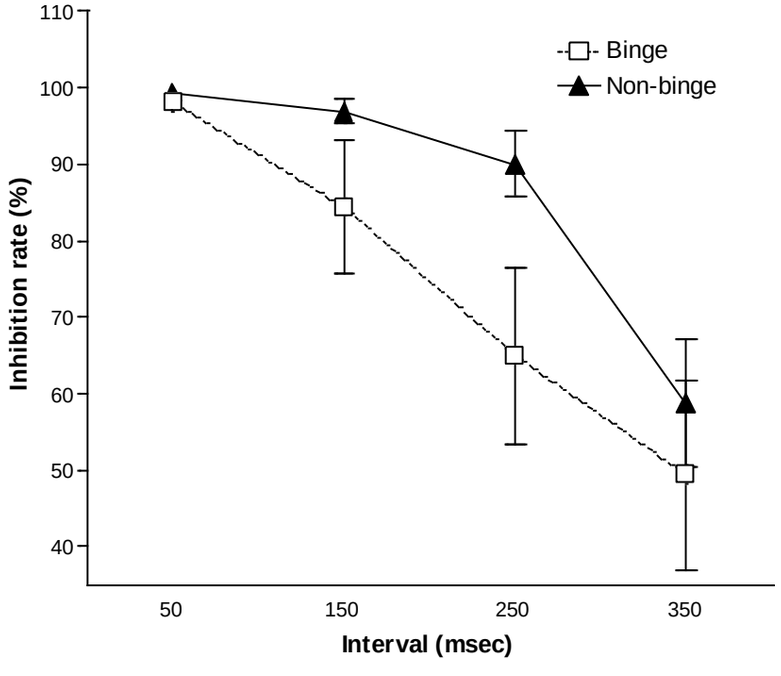
# Results
# DMT correct responses

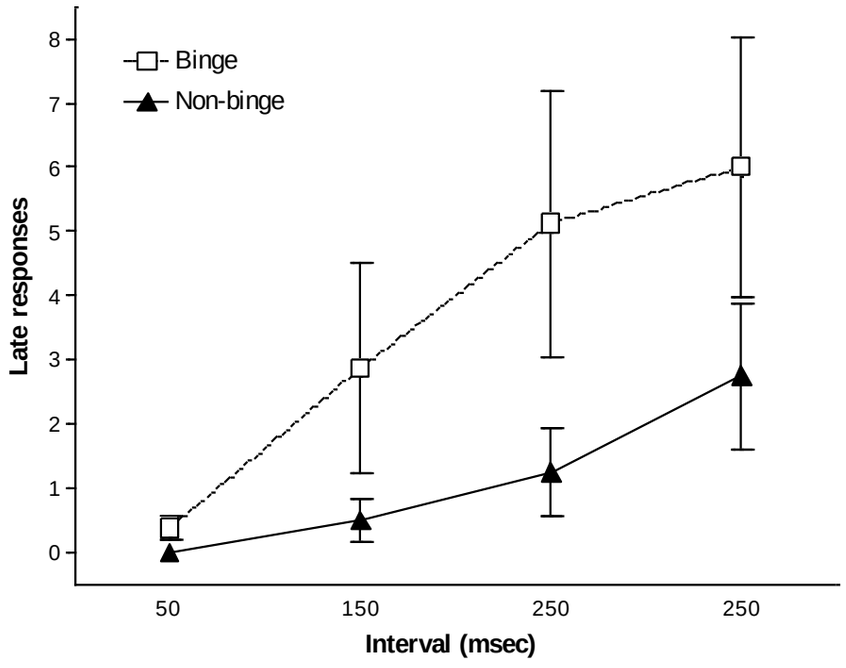



Binge drinkers made more correct responses in TSGS relative to TAGP condition. This was reversed in non-binge drinkers (p=0.03)

# Results
# Go-stop paradigm




Behavioural inhibition on the GSP was greatest in the told alcohol/given soft drink condition ($p<0.01$) and bingers made most errors ($p=0.04$).

Bingers are worse no matter what the condition. Bingers were more impulsive.

# Summary

- Non-bingers:
  - Alcohol instruction led to some performance improvement (compensatory model)
- Bingers:
  - at risk of alcohol dependence.
  - alcohol instruction impaired performance as per placebo model.
  - Binge drinkers tolerant to alcohol’s discriminative properties.

# Conclusion

- Challenging binge drinker expectations may reduce aversive effects of alcohol in this group.
- Different models between groups:
  - Predisposition?
  - Result of excessive drinking?