

## EXPLORING THE INFLUENCE OF TELEVISED SPORT ON AUTOMATIC ALCOHOL-RELATED COGNITIONS AND BEHAVIOUR

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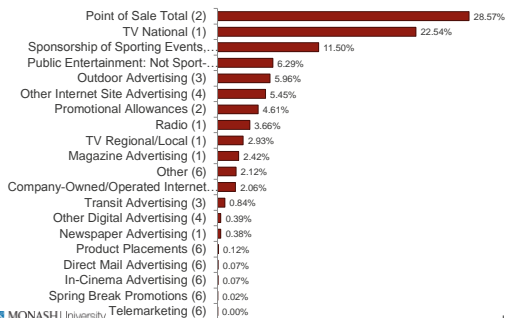
## Reducing alcohol-related harm

- Price
  - Raise taxes, minimum price per unit
- Availability
  - Restrict access to retail alcohol
- Advertising
  - Enforce bans on alcohol advertising

## Federal Trade Commission 2014 report

- Snapshot of alcohol market activity in 2011
- Analysis of 14 alcohol companies
  - Distributed 79% of all alcohol in the U.S.
  - Sold 1679 brands
  - US\$38 billion revenue
  - \$3.5 billion (10%) spent on alcohol advertising

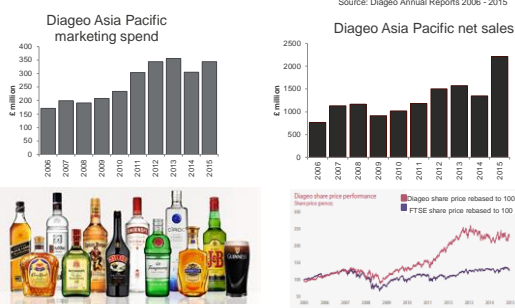
## % of \$3.5 billion advertising spend



Bundaberg Commercial 2014 - men LIKE US LIKE Bundaberg Rum

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### Marketing spend and sales



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### Bud Light sponsors the NFL \$1.4 billion over 6 years

THE WALL STREET JOURNAL

AB InBev Extends Bud Light's NFL Sponsorship

Six-year deal is valued at more than \$1.4 billion

Updated Nov. 4, 2013 10:05 am ET

Address: Budweiser USA has agreed to extend Bud Light's sponsorship of the NFL, which was set to expire after the 2013 Super Bowl, for another six years.

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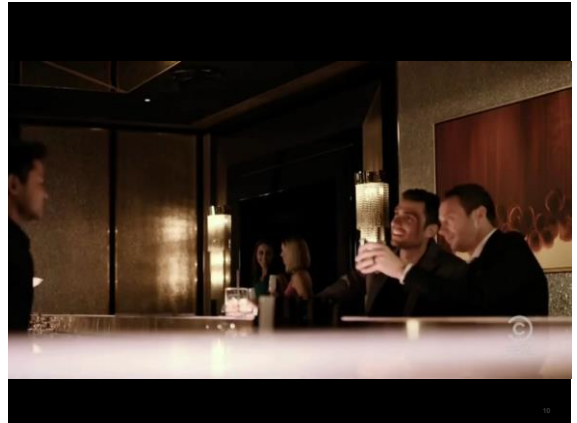
### Alcohol advertising and social norms



Published on Nov 5, 2014, South Park, Season 18, Episode 6  
Title: Freemium Isn't Free  
<https://www.youtube.com/watch?v=kuGQ7eAXiFY>

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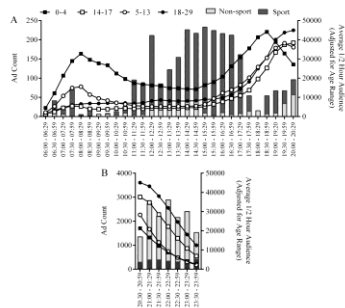
### Australia – the sporting-drinking nation



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### Study 1: Australian Free TV 2012 alcohol advertising



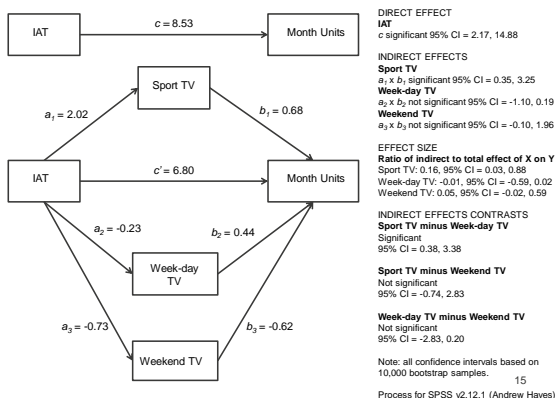
- Alcohol advertising prevalent during sport
- 3 times as many alcohol ads in sport programs than non-sport programs
- Kids exposed to alcohol ads on TV when they watch sport
- Normalises the sport drinking culture from an early age

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### Study 2: Is the association between sport and alcohol embedded in memory?

- Implicit Association Test (IAT)
- Measures strength of the association between paired concepts

Congruent grouping	Incongruent grouping	Expected reaction time difference
Flowers-Good ... Insects-Bad	Flowers-Bad ... Insects-Good	Congruent faster than incongruent
Sport-Alcohol ... Exercise-Soft drink	Exercise-Alcohol ... Sport-Soft drink	Congruent faster than incongruent



### Study 3: Does the association between sport and alcohol influence automatic alcohol related behaviour?

- Association between sport and alcohol embedded in memory
- Partly explained by sport TV viewing
- Is the implicit association between sport and alcohol strong enough to influence automatic drinking behaviour?
- Is the behaviour moderated by exposure to alcohol advertising on TV and in other media?

### Implicit Sport-Alcohol Association

IAT reaction times	Pairing	RT	Mean Congruent and incongruent
Congruent	<b>Sport-Alcohol</b>	<b>779.10 (149.02)</b>	798.92 (149.80)
	Exercise-Soft drink	819.18 (163.07)	
Incongruent	Exercise-Alcohol	892.98 (173.02)	894.41 (169.47)
	Sport-Soft drink	895.82 (182.01)	

n = 459

- Within subjects  $t$  test congruent vs. incongruent
- $t(458) = 17.17, p < .001, d = 0.60$
- There is an implicit association in memory between sport and alcohol

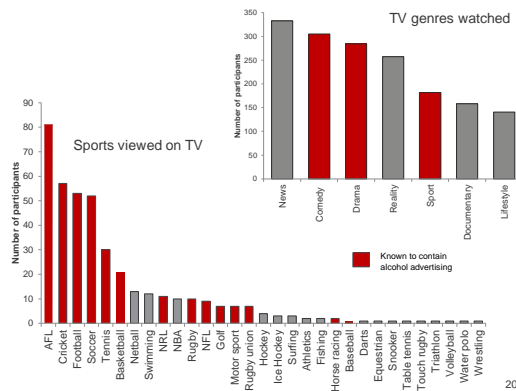
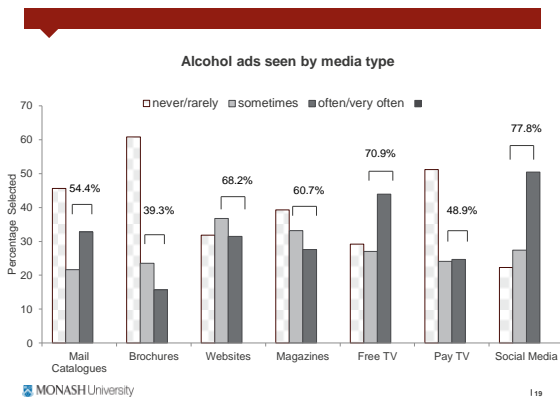
### Study 2 Summary

- People associate sport with alcohol at a subconscious level (associative memory)
- Implicit sport-alcohol associations are related to drinking behaviour
- Exposure to sport on TV has some mediating influence on that relationship

### Cohort characteristics

Final sample n=522 18-29 year olds

Gender	Male, n = 141 (27%)	Female, n = 381 (73%)
Age	Mean = 20.14	SD = 1.71
Australian citizen	Yes, n = 462 (89%)	No, n = 60 (11%)
Ever drunk alcohol	Yes, n = 484 (93%)	No, n = 38 (7%)
Play sport	Yes, n = 318 (61%)	No, n = 204 (39%)
Watch sport on TV	Yes, n = 182 (35%)	No, n = 340 (65%)

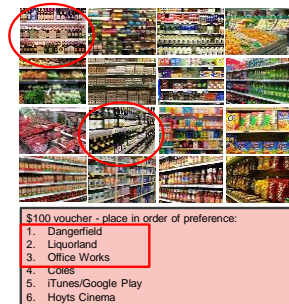


Experimental manipulation: cricket highlights or parliament question time (no alcohol advertising)



Dichotomous outcome: selected an alcohol product Yes or No

- Beer or wine selected from the 16 options?
- Liquorland ranked in top 3?
- 271 (52%) chose an alcohol product



### Covariates of interest

- Gender
- Sport participant
- Alcohol consumption
- Exposure to alcohol advertising on TV and various other media
  - Watch sport TV (compare with other genres)
  - Recall of alcohol brands that sponsor sport
  - Notice alcohol ads on TV and various other media
  - Level of engagement with alcohol advertising (e.g. like alcohol ads)

### Logistic Regression predicting alcohol product selection (Yes/No)

- Step 1: Video randomisation check *t* tests
  - differences in age, alcohol consumption, and general response to the video (e.g. mood, alertness, familiarity etc)
  - Add the covariates to the first step of a hierarchical model (Block 1)
- Step 2: Run separate logistic regression models - interaction between video and alcohol ad exposure predictors significant? (Block 2)
  - Ignore predictors with non-significant video interaction effect
- Step 3: Final model – enter video randomisation confounds (Step 1) and significant alcohol ad exposure predictors (Step 2)

## Final model predicting alcohol product selection: Yes/No

	b	Exp(b)	95% CI Lower	95% CI Upper
Age	-.032	.969	.856	1.097
Gender(1)	-.817**	.442	.261	.748
Video Mood	-.092	.912	.719	1.158
Video Alert	-.210*	.811	.683	.962
Video Familiarity	.014	1.014	.886	1.160
Video Interest	.261**	1.298	1.097	1.537
Video Attractive	-.394***	.675	.555	.820
Video Production	.068	1.070	.900	1.271
Play Sport YN(1)	-.010	.990	.642	1.527
Total Week Units Alcohol	.060***	1.062	1.048	1.076
<b>Video(1)</b>	<b>.737**</b>	<b>2.089</b>	<b>1.263</b>	<b>3.456</b>

< .05, \*\* < .01, \*\*\* < .001

Not significant: Watch sport on TV (n = 182, yes), sport sponsor recall, alcohol ad exposure\*, alcohol ad engagement

## Study 3 outcomes

- Is the implicit association between sport and alcohol strong enough to influence automatic drinking behaviour?
  - Yes
- Is the behaviour moderated by exposure to alcohol advertising on TV and in other media?
  - TV, no
  - Other media, maybe
  - Notice alcohol ads on social media – interesting trends

## Conclusion

- Watching a video of cricket activates alcohol related cognitions
- After controlling for confounders, people who viewed the cricket video were twice as likely to choose alcohol products than those who viewed the question time video
- We could not detect an effect of alcohol advertising exposure on alcohol related behaviour
- BUT
  - Conservative outcome variable
  - Cricket appeal to wider audience?
  - No imagery of alcohol ads
  - 1/3 of the sample watched sport on TV

Thank you!