

# Psychological Plausibility

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# Alcohol marketing and youth

- Evidence that alcohol marketing is associated with underage drinking
  - Print, visual media advertising
  - Internet/social media
  - Mass media (films, television, YouTube)
  - Promotional/branded items

# Children and adolescents are highly susceptible

- Little direct experience with alcohol, indirect experiences are a primary source of learning about alcohol
- Report greater exposure to and engagement in alcohol marketing than other age groups (Jernigan et al., 2017)
- Greater control over media choices than other sources of socialization (Arnett, 1995; Martin & Kennedy, 1993)
- Still developing executive control, susceptible to certain features (animation, music)
- Low advertising/media literacy – can't critically evaluate persuasive messaging

# How do we measure advertising exposure?

- Objective indicators (e.g., commercially available datasets such as Nielsen ratings)
- Self-reported exposure
  - Recognition
  - Recall
  - Ownership/Engagement
    - Ownership of branded merchandise; social media engagement



# Overview

- Goal: Understand *how* the alcohol industry influences youth drinking via marketing and advertising
  - What are the plausible explanations?
- Very little research attempts to understand the underlying mechanisms, although there are attempts to control for third variables in analysis (which could serve as confounders or mediators)
- Has implications for potential alcohol prevention program and policy targets to reduce underage drinking

# Mere Exposure Effect

- Individuals develop a preference for familiar stimuli (Zajonc, 1968)
- Children have knowledge of brands and slogans (Collins et al., 2003)
- Related to brand recognition, recall, favorability
  - Seeing familiar alcohol ads on Facebook was associated with greater likelihood of selecting an alcohol-related gift card over other options (Alhabash et al., 2016)
  - Children exposed to marketing in supermarkets are more likely to drink alcohol (Ellickson et al., 2005; Hurtz et al., 2007)

# Message Interpretation Process Model (MIP)

- Individuals progressively internalize messages using a combination of logically and emotionally dominated processing strategies.
- If a portrayal corresponds closely to personally relevant reference groups, children will be more likely to wish to emulate the portrayal.
  - Also, basic evaluative conditioning: associate the product with a positively valued person or group and that positive evaluation should transfer to the product

# Social Identity Theory (SIT)

- Affiliating products with social groups draws on social categorization and identification (key SIT principles)
- Long seen as important for consumer behavior (Schlenker, 1978)
  - “It seems reasonable to suggest that many products have some identity relevance, or...can take on such relevance through particular types of advertising campaigns.”
- Such campaigns are routinely used by alcohol companies to leverage social identity processes
  - Especially potent among adolescents, for whom social (and brand) identities are emerging and solidifying
  - McCreanor et al., 2005



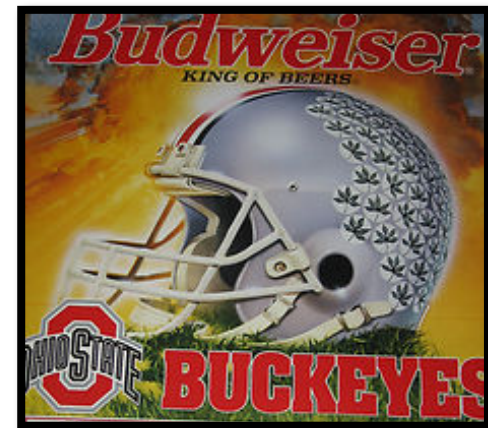
# SIT and alcohol

- Gordon et al., 2015: examined use of “brand communities” in alcohol brand sponsorship of Australian National Rugby League and adolescent drinking



A recent “American” example: Anheuser-Bush, now owned by a Belgian company, renamed its signature beer “America” in summer 2016.

# More ingroup-based beer marketing



# Ingroup affiliation and trust

- Ingroup affiliation elicits feelings of trust and safety (Vocci, 2006)
  - People behave in a more trusting manner with ingroup compared to outgroup members (e.g., Brewer, 2008)
- Alcohol packaged in colors representing a valued ingroup—students' university—elicits feelings of trust and safety concerning drinking and partying among underage drinkers (Loersch & Bartholow, 2011)



# Ingroup affiliation and incentive salience

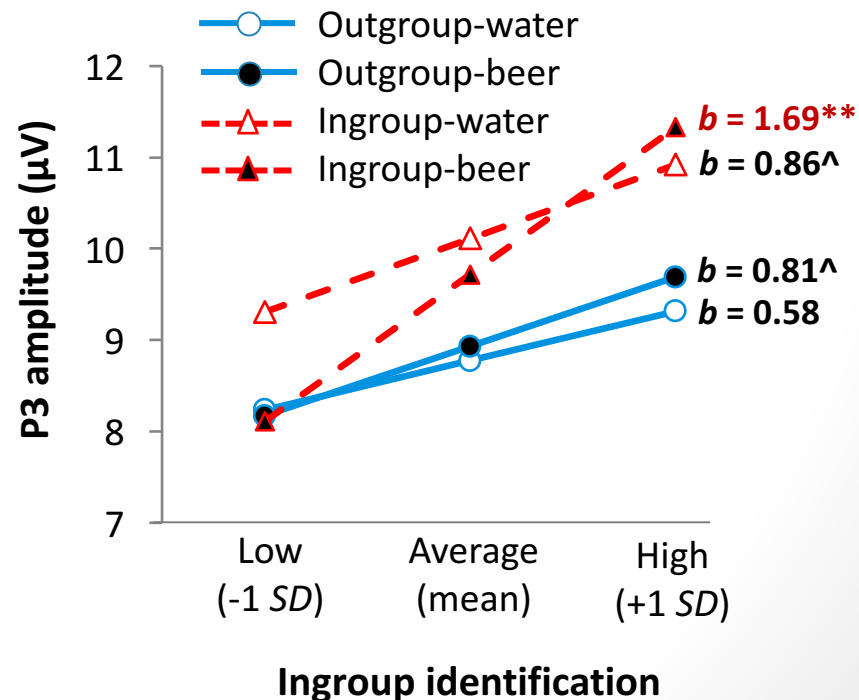
- Affiliating an alcohol brand with a valued ingroup also can enhance its incentive value
- The P3 event-related brain potential (ERP) elicited by alcohol-related cues (ACR-P3) is a known marker of AUD-related risk



Beer + Ingroup



Beer + Outgroup



# Cue-reactivity

- Once alcohol—reward associations are learned, exposure to alcohol-related cues (e.g., in ads) can elicit appetitive approach-like behaviors and cravings that can spur alcohol seeking and use (Robinson & Berridge, 1993)
  - *Incentive sensitization*
- Likely applies only to individuals already engaged in heavier drinking; theoretically not an explanation for initiating drinking

# Social Learning Theory

- Children acquire their behavior through observation of social role models (Bandura, 1977)
  - Especially those with whom they identify or otherwise admire
  - Popular media figures (“super peers”) are powerful role models due to the high visibility of their behavior, larger-than-life status (Distefan et al., 1999)

# Cultural norms

- Social climate that normalizes alcohol use (Chambers et al., 2017; Wallack et al., 1990)
  - “Intoxigenic” or “alcogenic” environments
  - a culture of intoxication (McCreanor et al., 2008; Murphy et al., 2014)
- Intoxigenic social identities (Griffiths & Casswell, 2010)
- Youth are more responsive to ads with social/party themes versus other themes (non-party) (Morgenstern et al., 2016)

# Peer norms

- Peer norms are a robust influence on adolescent alcohol use (D'Amico & McCarthy, 2006; Kelly et al., 2012)
- Alcohol exposure prospectively predicts perceived norms
  - Descriptive norms (alcohol use)
    - Perception of close friend drinking behavior (Gibbons et al., 2010; Wills et al., 2009)
    - Prevalence of alcohol use among peers (“kids your age”) (Dal Cin et al., 2009)
  - Injunctive norms (approval of drinking)
    - Exposure to positive images leads to more favorable images of the type of person who drinks (prototypes) (Gibbons et al., 2010)

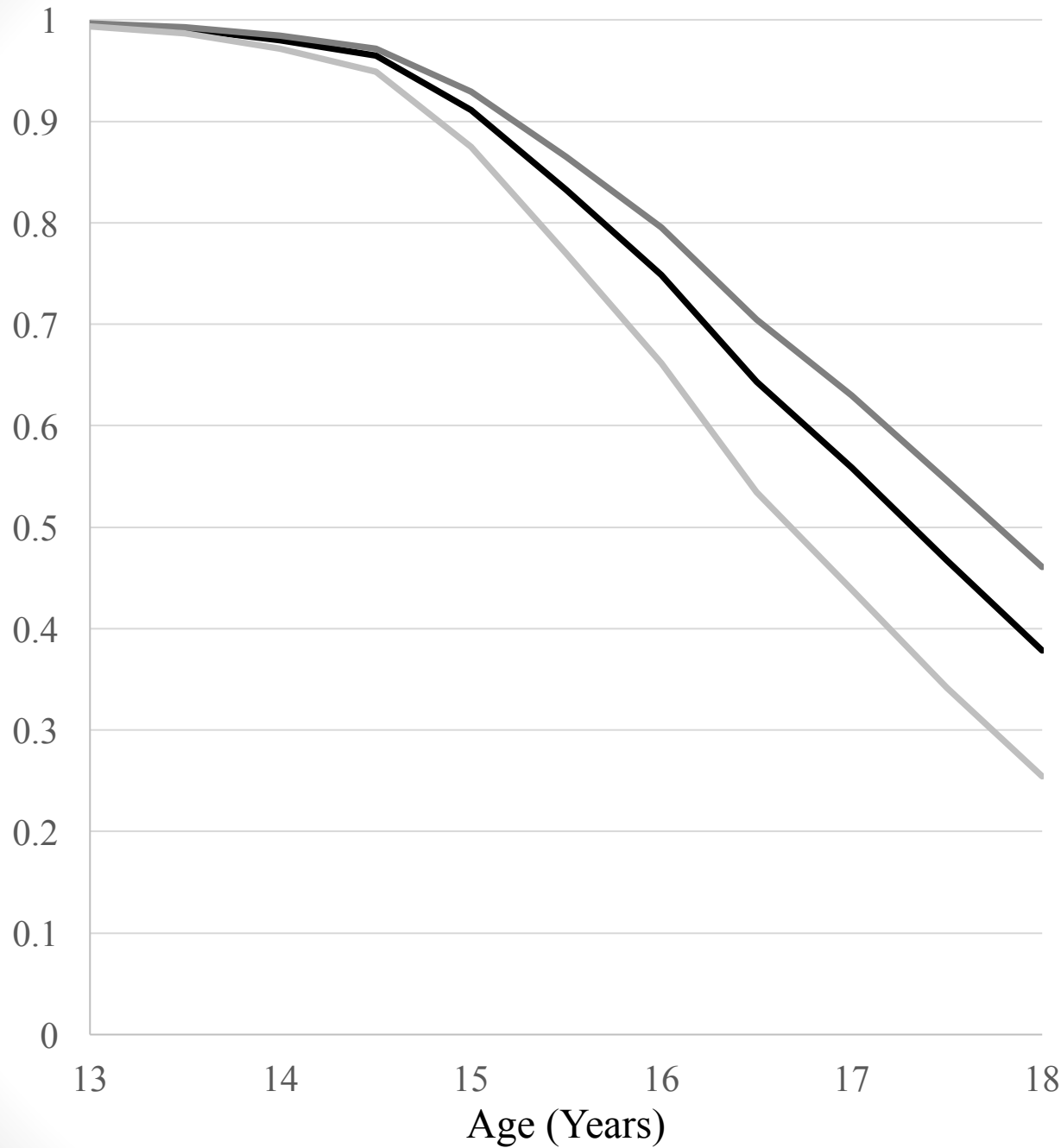


# Peer dynamics and exposure

- Viewing drinking models may lead to affiliation with alcohol-using peers (Sargent et al. 2006), including virtual peers (social media)
- Co-viewing alcohol content with peers is more influential than viewing with parents (Jackson et al., 2017)
  - Shared exposure among friends may signal implicit approval of the media content
  - Friends are also affected by what they viewed (Gibbons et al., 2010)

# Friend-shared exposure

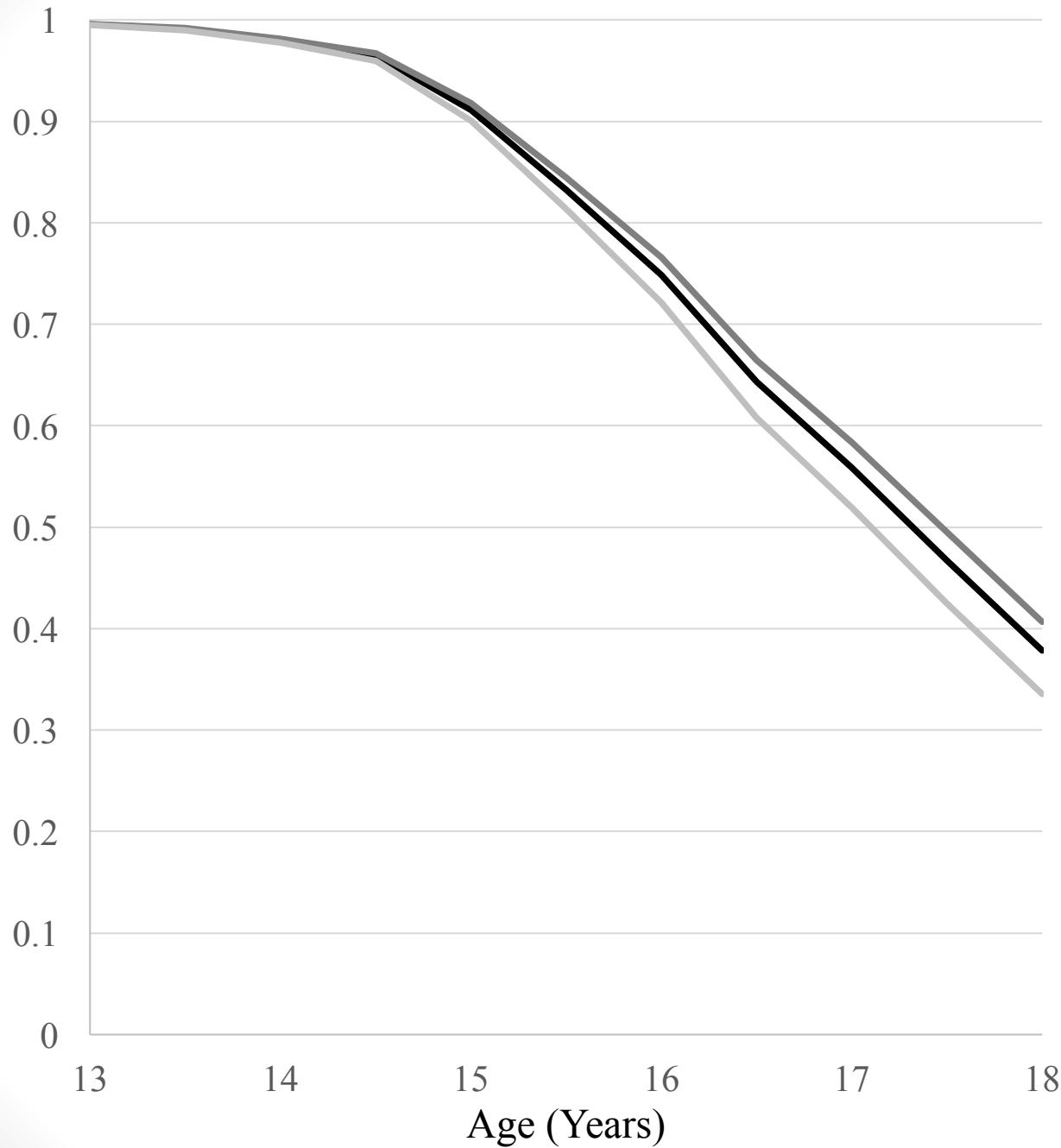
Survival (One Minus Hazard)



- Mean Exposure
- 10th Percentile Exposure
- 90th Percentile Exposure

# Parent-shared exposure

Survival (One Minus Hazard)



- Mean Exposure
- 10th Percentile Exposure
- 90th Percentile Exposure

# Peer-to-peer transmissions

- Viral marketing (Jernigan et al., 2017)
  - User-generated: viewers become active agents in promotion of products
  - Re-distribution to potential customers
  - Introduces authenticity, multiplier effect (increasing effectiveness of advertising at no extra cost to the industry)  
McCreanor et al. (2008)
- Predominates in electronic/social media
  - Sharing and liking
  - Users post comments, pictures

# Alcohol-related Cognitions

- Alcohol Expectancies
  - Explicit (conscious processes)
  - Implicit (non-conscious processes)
- Affective response (valence, liking)
- Attitudes, willingness, intentions
- Drinker identity

# Alcohol expectancies

- Youth form alcohol outcome expectancies (AOEs) in part from observations of others (Donovan, Molina, & Kelly, 2009)
  - Marketing and media portrayals of alcohol are predominately positive (celebration, social)
- Prospective associations with movie alcohol exposure
  - Positive film portrayals of drinking predicted positive AOEs in college students (Kulick & Rosenberg, 2001)
  - Exposure to alcohol movie content predicted beliefs about the possible benefits of using alcohol (e.g., have more fun at parties, feel more part of the group) (Dal Cin et al., 2009)
  - Null findings for negative AOEs (Kulick & Rosenberg, 2001)
- Cross-sectional *negative* associations between exposure to TV ads and positive expectancies (Fleming et al., 2014)

# Other cognitions: affective response, willingness, attitudes, intention

- Prototype Willingness Model, adolescents may not intend to drink alcohol but under conducive circumstances they may be willing to try it (Gerrard et al., 2008).
  - Movie alcohol content prospectively predicts willingness (Gibbons et al., 2010)
- Cross-sectional associations between exposure to TV ads and attitudes and perceptions (Fleming et al., 2014)
- Associations between ad exposure (measured by brand recall, contact frequency) and a composite of expectancies, willingness, intention (Morgenstern et al., 2011)
- However, no association between movie alcohol exposure and whether the respondent would enjoy drinking alcohol (Wills et al., 2009)

# Immediate effects of advertising on alcohol cognitions

- Experimental studies (review by Stautz et al., 2016)
  - Examine immediate effects on alcohol use and cognitions
  - Most studies have featured visual broadcast media advertising
- Larger effect sizes for positively-valenced explicit cognitions (general favorability) than explicit AOE's or implicit cognitions (tasks such as the IAT)



# Cognitions: Pulling it all together

Based of the Message Interpretation Process Model (Fleming et al., 2004):

- Perceive role models as *desirable*

“They are strong, popular, smart, and good-looking.”

- *Identify* with these role models

“I wish I could be like them.”

- Develop positive alcohol-related *expectancies*

“Drinking makes you happy, helps you fit in, helps you make friends, helps you have fun, and makes sports more fun.”

- *Intention/willingness* to drink
- *Alcohol use*

More **distal** to behavior, more indicative of exposure

Exposed to Marketing

Notices Marketing

Remembers/recognizes Marketing

Likes Marketing

Interactive marketing participation (ABM, internet)

Communicates Preferences to Friends

Engages in marketing process (Consumer Generated Marketing)

More **proximal** to behavior, mixture of exposure and cognitive response

Expectancies

Alcohol Initiation

Drinker ID

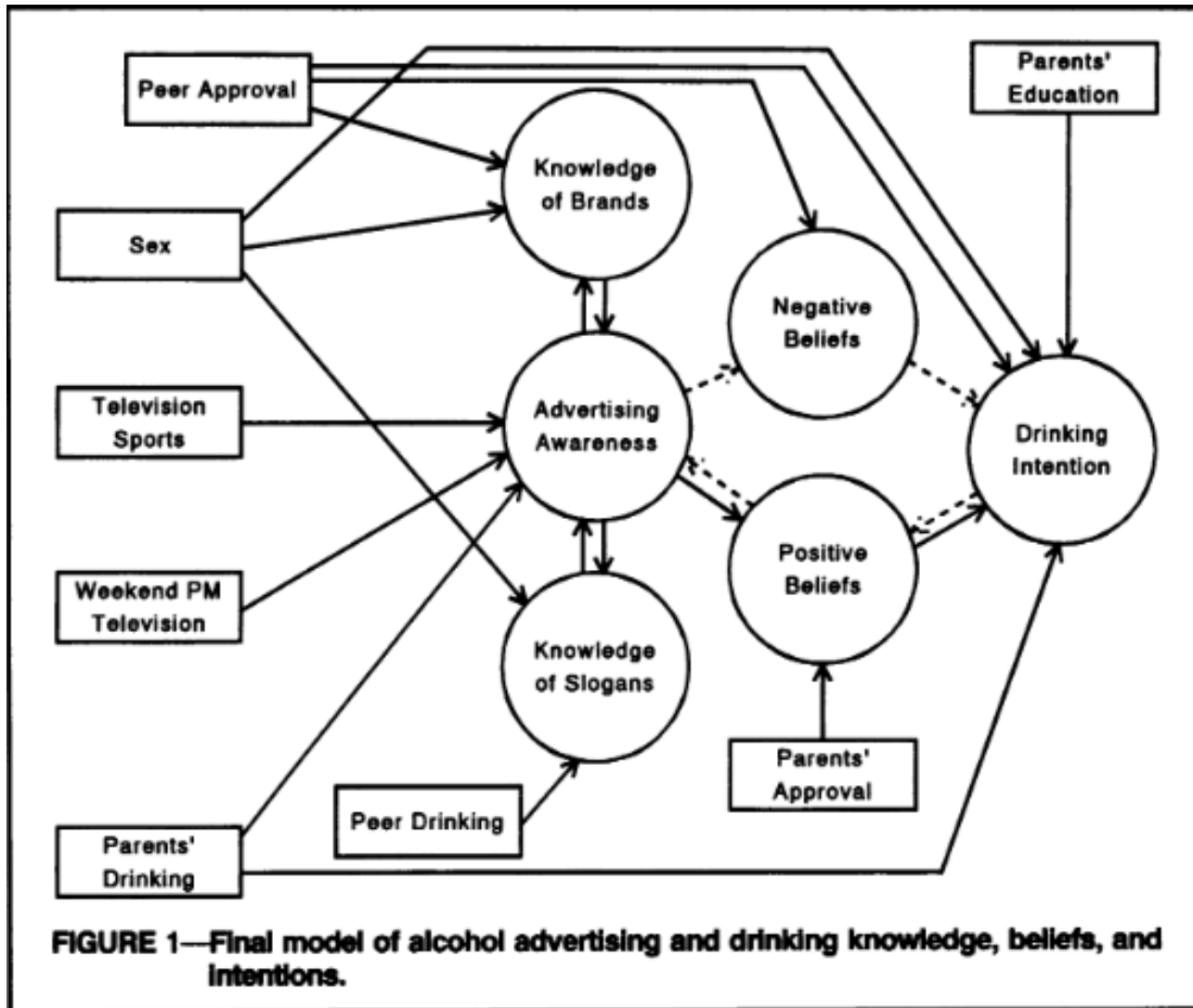
Progression to Hazardous Drinking

Brand Allegiance

Greater Marketing Receptivity  
Advertising Exposure/Awareness/Response

# Future directions/questions

- Do processes differ across...
  - Age
  - Type of alcohol outcome (socio-environmental variables more predictive of initial use)
  - Type of marketing strategy
- Expand experimental studies to other proximal outcomes beyond cognitions
- Formal tests of mediation (Fleming et al., 2004)
  - Consider multivariate framework (e.g., structural equation modeling)
  - Bi-directional associations between processes and drinking
  - Prospective data



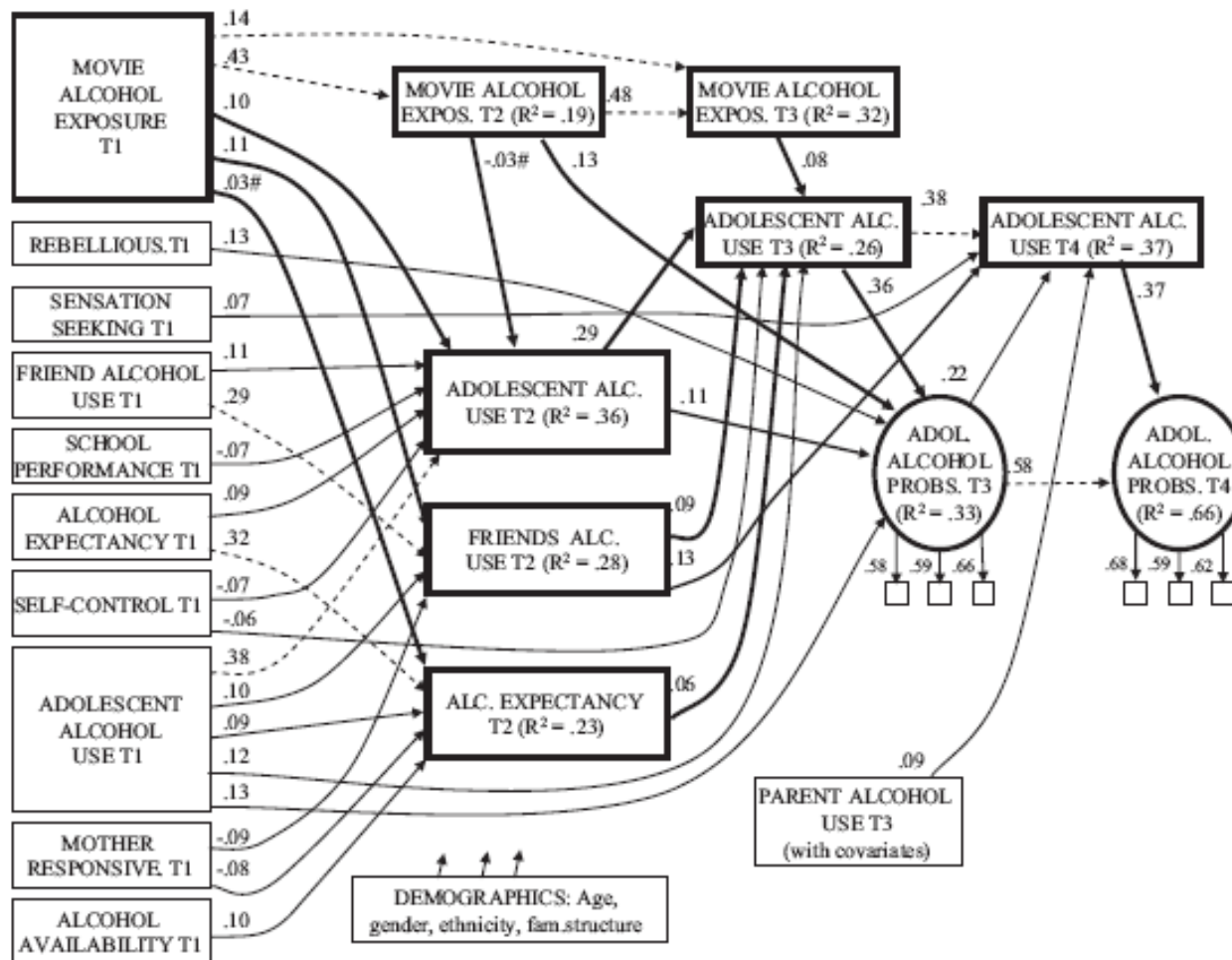


Figure 1. Structural model for effect of movie alcohol exposure on mediators, alcohol use, and alcohol problems. Analytic  $N = 961$ . Ovals represent latent constructs, rectangles represent manifest variables. Values are standardized coefficients. Coefficients are significant ( $p < .05$ ) unless otherwise noted; # = ns. Bold lines indicate predicted pathways; thin lines indicate pathways for other study variables; dashed lines indicate