



# Anti-Smoking Advertising: Youth Appraisal and Engagement

Melanie Wakefield<sup>1</sup>, George Balch<sup>2</sup>,  
Yvonne Terry-McElrath<sup>3</sup>, Glen Szczypka<sup>2</sup>,  
Katherine Clegg-Smith<sup>2</sup>, Erin Ruel<sup>2</sup>, Brian Flay<sup>2</sup>

1. Anti Cancer Council of Victoria, Australia

2. University of Illinois at Chicago, IL

3. University of Michigan, MI

*Funded by the National Cancer Institute*



# Anti-smoking advertising research aims

---

- Describe pattern of adult and teen exposure to anti-smoking advertising
  - Nielsen Media Research
  - 1994 - 2002
  - Top 75 media markets
  - Gross rating points
- Relate exposure estimates to teenage smoking attitudes and beliefs

# Anti-smoking advertising research aims

---

- Not all anti-smoking ads equally effective
- Quantity of advertising (gross rating points) and quality of ads (strategy and execution)
- Relate quantity and quality of anti-smoking ads to teenage smoking

# Ad-rating aims

---

- What kinds of ads substantially influence teens' comprehension, appraisal, engagement and recall of ads?

# Ad-rating protocol

---

- 50 anti-smoking ads made during 1997-2001
  - audience (teen; general)
  - sponsor (tobacco control; tobacco company; pharmaceutical company)
  - topic (health effects; ETS; health benefits; cessation; uncool; industry manipulation, etc)
  - executional style (graphic, testimonial, humor etc)
  - other characteristics

# Ad-rating protocol

---

- 50 ads allocated to 5 reels
- Order reversed to assess order effects
- 280 8<sup>th</sup>, 10<sup>th</sup>, 12<sup>th</sup> grade teens invited to viewing session to assess 10 anti-smoking ads
- Each ad shown twice, then complete 1 page rating form
- After 1 week, teen phoned to ask about recall of ads seen
- Chicago and Boston sites

# Ad-rating protocol

---

- Ad viewing:
  - ad comprehension (main point)
  - 17 variables for rating ads (1 - 7)
  - previous exposure to this ad
- Follow up:
  - unprompted recall of any ads from session last week?
  - talk about this ad with anyone?
  - seen ad between rating session and follow-up?

# Order effects

---

- Compared ratings for each reel with ratings for corresponding reverse order reel
- Out of 850 comparisons (17 variables x 50 ads), only 6% indicated significant differences by order
- No consistent relationships between individual rating variables or ads, and order
- Conclusion: order effects minimal and non-significant, so ratings were combined for different ordered reels

## Site effects

---

- Compared ratings for same ads for teens in Chicago and Boston
- Out of 850 comparisons (17 variables x 50 ads), only 4% indicated significant differences by site
- Site effects not substantial and unsystematic, so combined sites
- Average of 56 teens rated each ad

# Previous exposure effects

---

- 32 out of 50 ads had been seen before by more than one teen
- Compared ratings for these 32 ads that had vs had not been seen previously by teens
- Out of 544 comparisons (17 variables x 32 ads), only 6% indicated significant differences by previous exposure
- Where significant differences did exist, no consistent relationship to ratings, suggesting random variation

# Analysis of ad ratings

---

- Exploratory Factor Analysis
  - 4 factors or latent constructs retained
- Confirmatory Factor Analysis
  - 'Boring' dropped - did not load on any factor
  - Standardized results shown
  - 4 factors or latent constructs retained
- Structural Equation Modeling
  - Bivariate models run with single indicator added to predict 4 latent constructs

# Factors identified

---

**Cognitive  
engagement**

clear  
important  
stop and think  
talk to others

**Negative  
emotional  
intensity**

sad  
emotional  
angry  
scared  
powerful

**Confrontation**

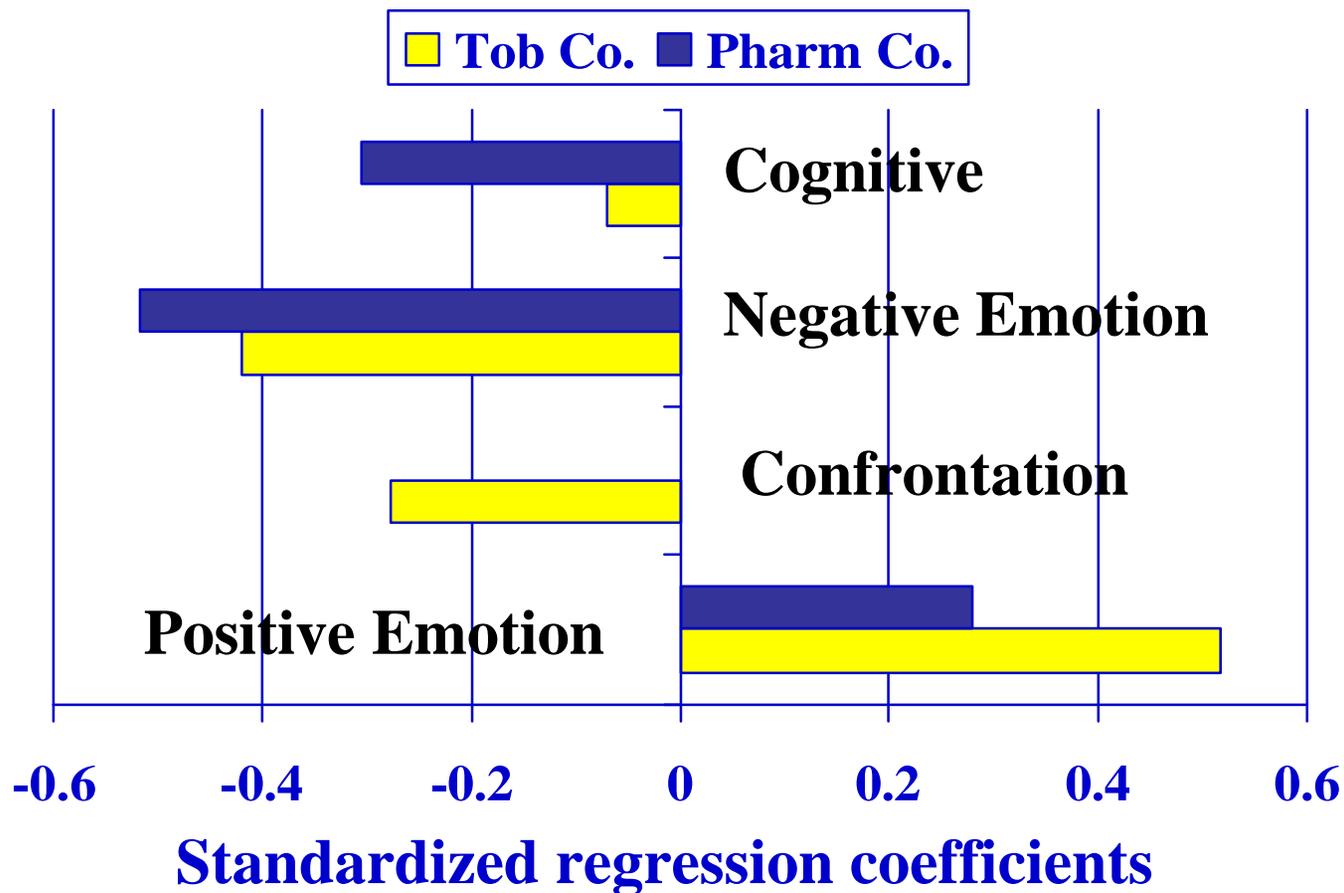
curious if true  
hard to believe  
new  
talk down to me

**Positive  
emotion**

happy  
funny

# Relationship between ad sponsor and factors: tobacco companies and pharmaceutical companies vs. state ads

---





# Implications

---

- Tobacco company anti-smoking ads seem designed to avoid challenging youth beliefs or feelings. They are 'feel good' ads.
  - Pharmaceutical company ads appear irrelevant to teens.
- 



# Future analyses

---

- Explore other ad characteristics individually
  - Undertake multivariate SEM to identify the main characteristics and combinations of characteristics influencing factors
  - Include analyses of main point comprehension, and at follow-up, recall and discussion of ad
- 