



Susceptibility to smoking and advertising: Adolescents' responses to retail tobacco ads



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1. Background

- Smoking initiation has been associated with greater exposure to, better memory of, and more favorable attitudes toward cigarette advertising. Less is known about the influence of adolescents' intention to smoke on such outcomes.
- According to schema-correspondence theory, ads are more appealing if they project images or attributes that are consistent with consumers' self-schema.
- This study investigates whether smoking susceptibility, defined as the lack of a firm commitment not to smoke, is indicative of a self-schema that enhances adolescents' memory for and attraction to cigarette ads.

2. Research Question

Does susceptibility to smoking make adolescents more attentive and attracted to cigarette advertising at the point of sale?

3. Methods

In a randomized controlled experiment, 8th and 9th graders (n=385) in five Northern California schools:

- saw photographs of a convenience store with or without tobacco advertising, while they
- listened to a 90-second news story describing either a proposed law to ticket minors for smoking (tobacco mentioned) or teen purchases from convenience stores (tobacco not mentioned).

This analysis focuses exclusively on the subset of 194 participants who only saw photographs of the tobacco-saturated store.

4. Sample

- 8th and 9th graders (n=194)
- 48% female
- 35% Asian, Southeast Asian, or Pacific Islander
25% Hispanic
20% Caucasian
5% African American
27% multiple origins
- 34% nonsusceptible never smokers
32% susceptible never smokers
34% experimenters (ever tried smoking)

5. Stimulus Materials

- Color photographs were digitally altered to create two views of the same convenience store either dominated by or devoid of tobacco ads.
- In the tobacco-saturated store (pictured below), ads for six brands (Marlboro, Camel, Newport, Kool, Doral, and Special 10s) were placed in the windows and around the cash register.



6. Outcome Measures

- Immediate recall.** After a distraction task, students listed every brand name they remembered seeing in the store.
- Delayed recall.** 20 minutes after exposure, students marked all the cigarette brands they remembered seeing from a list of 11 choices.
- Accuracy** was calculated by summing the proportion of targets identified and foils avoided.
- Attractiveness.** Interest in shopping at the store and the likelihood that it sells their favorite snack were rated on a six-point scale, with higher numbers indicating more favorable impressions of the store.

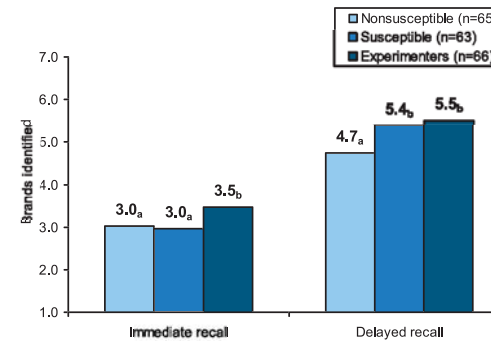
7. Analyses

- A 3 x 2 analysis of variance (ANOVA) tested the effects of smoking susceptibility (nonsusceptible vs. susceptible vs. experimenter) and story context (tobacco-related vs. unrelated) on students' memory and perceptions of a tobacco-saturated store.
- Results are collapsed over story context (tobacco related vs. unrelated) because the factor yielded no significant main or interaction effects for the dependent variables.

8. Results

- Smoking susceptibility enhanced delayed recall after exposure, $F(2,188)=3.37, p<.05$. As shown in Figure 1, experimenters and susceptible never smokers remembered more cigarette brands than nonsusceptible never smokers.

Figure 1. Adolescents' memory for advertised cigarette brands, by smoking susceptibility



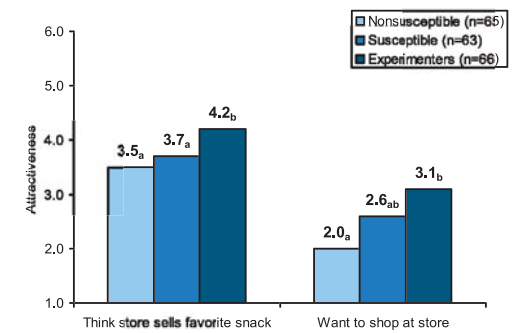
Note: Means that do not share the same letter subscript differ by post-hoc comparison at $p<.05$.

- Susceptibility did not facilitate more accurate memory. On average, students correctly identified 75% of targets and foils, regardless of smoking susceptibility status.
- As shown in Figure 2, experimenters expressed greater interest in shopping at the store than susceptible never smokers, who expressed greater interest than nonsusceptible never smokers, $F(2,186)=13.66, p<.001$.

8. Results (continued)

- Experimenters were also more likely than nonsusceptible never smokers to believe the pictured store sells their favorite snacks, $F(2,186)=3.52, p<.05$.

Figure 2. Adolescents' opinions of a tobacco-saturated store, by smoking susceptibility



Note: Means that do not share the same letter subscript differ by post-hoc comparison at $p<.05$.

9. Conclusions

- Compared to nonsusceptible never smokers, susceptibles and experimenters noticed and remembered more cigarette advertising in the same store. They didn't remember ads better, they just remembered more of them.
- Adolescents' susceptibility to smoking also predicted more favorable opinions of a tobacco-saturated environment.
- Inferences from this experiment are limited by its small sample size, artificial context, and inability to draw conclusions about the cumulative effects of adolescents' exposure to retail tobacco advertising. These shortcomings are addressed in an on-going longitudinal survey.

For more information...

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