Addiction & the Humanities, Vol. 6(3) – Movies, Urges, and Smoking Cues

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The Motion Picture Association of America (MPAA) administers a well-known

movie ratings system based, in part, on [movie characters' smoking behavior](). Specifically, the MPAA's rating system currently considers three primary questions for movies that contain smoking: (1) Is the smoking pervasive; (2) Does the film glamorize smoking; and (3) Is there an historic or other mitigating context? Movies with affirmative answers to the first two questions, but not the third, receive a higher warning rating than other movies. Do smoking cues in movies warrant higher warnings? This week, Addiction and the Humanities reviews recent research examining how static and dynamic smoking images from movies relate to smokers' urges to smoke and actual smoking behavior (Lochbuehler, Engels, & Scholte, 2009).

Methods

- The authors conducted two convenience sample studies:

    1. a counterbalanced within-subjects (i.e., all participants received both conditions) comparison of 31 adult smokers' (12 male; 19 female) cravings following exposure to photographs (i.e., static cues) in which smoking is depicted and photographs in which smoking is not depicted;
    2. a randomized between-subjects (i.e., participants were randomly assigned to receive one condition or the other) comparison of 65 adult smokers' (22 male; 43 female) cravings and smoking

behavior following exposure to movie clips (i.e., dynamic cues) in which smoking was either depicted or not.

- For both studies, the authors assessed urges using a visual analogue scale (VAS).[i]
- For the static study, the authors also assessed urges using a 4-item Questionnaire of Smoking Urges (QSU; e.g., "I crave a cigarette.").
- For the dynamic study, the authors also called participants one hour after the experiment and asked how many cigarettes they smoked during the previous hour.

Results

- Table 1 shows that the static cue results indicated an effect of smoking cues on two measures of smoking urges, the QSU and the VAS: (1) QSU ($t(30)=3.61$, $p<.01$); and (2) VAS ($t(30)=3.24$ $p<.01$).
- The dynamic cue results indicated that, movie clip cues had no effect on cravings ($F(1,61)=0.25$, $p>.05$) or in the number of cigarettes smoked during the hour following the experiment ($F(1,55)=0.12$, $p>.05$), after adjusting for baseline smoking cravings.

Table 1. Mean (standard deviations) Craving Scores by Study Condition

	Craving: Questionnaire of Smoking Urges*	Craving: Visual Analogue Scale*
Static Cue Smoking Depicted	43.16 (24.15)	63.68 (21.47)
Static Cue Smoking Not Depicted	33.35 (20.22)	56.53 (22.93)

Note. *=p<.01

Limitations

- Some aspects of the experimental design, including the small sample sizes and the university-based convenience samples, limit the generalizability of the study findings.
- The authors created the study cue materials from a single media source: the movie Atonement. The use of alternative and/or additional media sources could provoke different findings.

Discussion

The results of this study were mixed (i.e., smoking cue effects influenced craving for static, but not dynamic cues). Other research suggests that smoking cues in movies have a variety of predictable effects on individuals' smoking related behaviors and cognitions ([see, A&H Vol. 3(2) for a discussion](#)). Randomized experiments that utilize more representative and larger samples of participants will help elucidate the conditions under which smoking cues in movies affect viewers. Additional research also should pursue a direct comparison of the effects of static versus dynamic smoking cues. More generally, smoking in movies is an ongoing hot topic for public health advocates, movie viewers, and those in the movie industry, and remains worthy of additional research attention.

References

Lochbuehler, K. Engels, R. C. M. E., Scholte, R. H. J. (2009). Influence of smoking cues in movies on craving among smokers. Addiction, 104, 2102-2109.

[i]Participants mark a line anchored by two descriptive words at the point that they feel represents their current state.