



Small or Large? How Film Types Influence Customer's Purchase of Food Sizes at the Movies?

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Who hasn't bought some popcorns or drinks at the movies? A significant portion of the movie theater's total revenue comes from customers' spending on concession items. For example, AMC Theatre's food and beverage revenue exceeded more than \$1.5 billion, accounting for almost 30 percent of its total revenues in 2019, prior to COVID. Given that most food and drink options at the movies are unhealthy, it is important to understand the factors that influence consumers' consumption decisions for their health and well-being, in addition to the firms' interests in maximizing their profits. Despite the relevance of food consumption at the movies, very few researchers have explored this domain.

In their influential work, Garg, Wansink, and Inman (2007) found that people generally eat more hedonic foods when they are watching a sad movie than when watching a happy movie. In contrast, people were more likely to consume large quantities of less hedonic food when they were watching a happy versus a sad movie. Similarly, other researchers on affect and food have mostly focused on the incidental effect of emotions on the actual consumption of food (e.g., Munichor and Friedlander 2018). While these findings are more relevant to consumers' eating behaviors while watching movies at home, where food is readily available, it is less applicable to watching movies at the theatre. That is, at the movies, customers purchase the amount of food—especially through standardized small or large sizes—*prior to* watching the movie and is less influenced by the emotions that the movie generates.

Hence, to better understand customers' actual food purchasing behaviors at the movies (which occurs before watching the movie), our working paper examines how the movie's *expected* affective valence (i.e., happy versus sad movie) influences people's decisions on purchasing food items. According to Wilson and

Gilbert's affective forecasting (2005), when predicting emotional responses to future events, people often exhibit an impact bias, overestimating the strength and duration of their emotional responses to these events. Wilson and Gilbert (2005) found that people expecting to be in a sad state were more likely to overestimate their reaction than people in a happy state. Based on these prior literatures, we anticipate that people who are about to watch a sad movie may buy less food, as a self-control measure, knowing that they may consume more unhealthy food than usual. We examine our hypothesis through two studies.

Pilot Study

In this study, we explore the relationship between trait self-control and food purchase decisions during a hypothetical movie theater experience. The goal was to see if self-control traits would influence the amount of food people intend to purchase, especially between healthy vs. non-healthy items.

Study Design and Results

We recruited 298 participants from MTurk who read a short description with a movie poster and were asked to imagine they were about to watch the movie in a theater. Next, the participants were asked to imagine that “you are at the cinema food counter, looking to purchase something to eat or drink while you watch the movie that you just read about.” First, they chose the type of food and drinks from a menu of items—healthy (e.g., trail mix, 100% juice) and unhealthy (e.g., popcorn, soda)—to purchase, without a limitation on how many items to purchase, including a “nothing” option. Then the participants filled out a brief self-control scale measure.

The main dependent variable was the total number of healthy or unhealthy items purchased. An ordinary least square regression showed that self-control was negatively related to unhealthy food consumption

($b = -.36, p < .001$) while it was marginally positively related to healthy food consumption ($b = .11, p = .06$), after controlling for age, gender, education, income, and frequency of going to the movies. Interestingly, frequent movie goers were more likely to choose more unhealthy food ($p = .02$) but showed no relationship on the purchase intention of healthy foods ($p = .98$).

This pilot study showed that people's self-control traits matter when it comes to purchasing food, especially unhealthy ones, prior to watching a movie. Next, we manipulate the valence of the movie to be watched and see how people's affective forecasting influence the relationship between self-control and food purchase.

Study 1

In this study, we examine how anticipation of watching different types of movies (sad vs. happy) can influence buying behavior in a hypothetical movie theater experience.

Study Design and Procedure

We randomly assigned 199 participants recruited from MTurk to one of two conditions: sad vs. happy movie. In both conditions, participants read about a short description with the movie's poster and were asked to imagine that they were at the movies to watch this film. Participants were shown a poster and description of a sad ("Aftershock") or happy ("Detective Chinatown") international films for each condition, to avoid any prior biases due to familiarity. Next, the participants were shown a menu of foods with different sizes and had to select the items they were going to buy before watching the movie. We then measured people's self-control traits.

Results and Discussion

We found a significant interaction between trait self-control and movie type on the likelihood to purchase small size food items ($p=.05$), after controlling for demographic variables and how frequently participants went to the movies. As shown in Figure, the interaction was primarily driven by participants in the sad movie condition, in which low self-control individuals also were more likely to buy smaller sized items. Our results suggest that anticipation of watching sad movies makes people forecast that they will eat more (Garg et al. 2007), and hence purchase smaller size food items to limit their future consumption, even for those with low self-control.

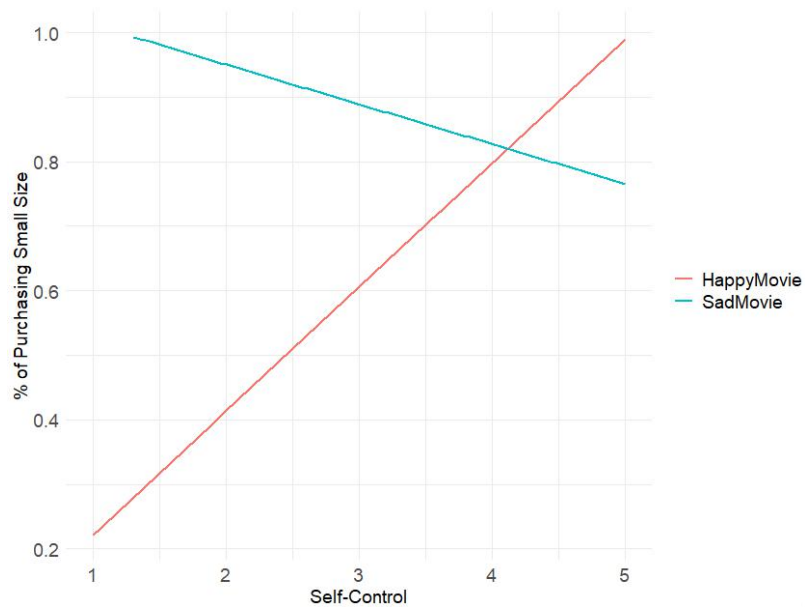


Figure: Movie Type and Self-Control in Food Purchases at the Movie Theater

Conclusion

The results of our two studies provide a preliminary insight into the impact of different film genres on

people's food and drink purchases. Our research shows that anticipation of watching happy movies does not make people buy less unhealthy food. However, sad movies have an impact on the size of food or drinks that people buy, especially for unhealthy foods. The implications of our working paper are important for consumers and for food marketers in movie theaters. For example, cinema marketers can advertise the type of food and suggested sizes to sell based on the type of movie tickets that the customer has purchased online or is expected to watch. Overall, this project in-progress is a starting point to understand affective forecasting and self-control behaviors in a movie theater setting, and we plan to conduct more studies to further validate our general findings.

References

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