Habit makes bad food too easy to swallow

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Do you always get popcorn at the movies? Or snack while you're on the couch watching television? A new paper by USC researchers reveals why bad eating habits persist even when the food we're eating doesn't taste good. The study also reveals the surprisingly simple ways we can counter our habits to gain control over what we eat.

In an ingenious experiment, researchers gave people about to enter a movie theater a bucket of either just-popped, fresh popcorn or stale, week-old popcorn.

Moviegoers who didn't usually eat popcorn at the movies ate much less stale popcorn than fresh popcorn. The week-old popcorn just didn't taste as good.

But moviegoers who indicated that they typically had popcorn at the movies ate about the same amount of popcorn whether it was fresh or stale. In other words, for those in the habit of having popcorn at the movies, it made no difference whether the popcorn tasted good or not.

"When we've repeatedly eaten a particular food in a particular environment, our brain comes to associate the food with that environment and make us keep eating as long as those environmental cues are present," said lead author David Neal, who was a psychology professor at USC when the research was conducted and now heads a social and consumer research firm.

The study, in the current issue of the journal Personality and Social

Psychology Bulletin, has important implications for understanding overeating and the conditions that may cause people to eat even when they are not hungry or do not like the food.

"People believe their eating behavior is largely activated by how food tastes. Nobody likes cold, spongy, week-old popcorn," said corresponding author Wendy Wood, Provost Professor of Psychology and Business at USC. "But once we've formed an eating habit, we no longer care whether the food tastes good. We'll eat exactly the same amount, whether it's fresh or stale."

The researchers controlled for hunger and whether the participants liked the popcorn they received. The researchers also gave popcorn to a control group watching movie clips in a meeting room, rather than in a movie theater.

In the meeting room, a space not usually associated with popcorn, it mattered a lot if the popcorn tasted good. Outside of the movie theater context, even habitual movie popcorn eaters ate much less stale popcorn than fresh popcorn, demonstrating the extent to which environmental cues can trigger automatic eating behavior.

"The results show just how powerful our environment can be in triggering unhealthy behavior," Neal said. "Sometimes willpower and good intentions are not enough, and we need to trick our brains by controlling the environment instead."

In another movie theater experiment, the researchers tested a simple disruption of automatic eating habits. Once again using stale and fresh popcorn, the researchers asked participants about to enter a film screening to eat popcorn either with their dominant or non-dominant hand.

Using the non-dominant hand seemed to disrupt eating habits and cause people to pay attention to what they were eating. When using the non-dominant hand, moviegoers ate much less of the stale than the fresh popcorn, and this worked even for those with strong eating habits.

"It's not always feasible for dieters to avoid or alter the environments in which they typically overeat," Wood said. "More feasible, perhaps, is for dieters top actively disrupt the established patterns of how they eat through simple techniques, such as switching the hand they use to eat."

More information: Neal et al., "The Pull of the Past: When Do Habits Persist Despite Conflict With Motives?" Personality and Social Psychology Bulletin: 2011.

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