

Could our minds be tricked into satisfying our stomachs?

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Research to be presented at the Annual Meeting of the Society for the Study of Ingestive Behavior (SSIB), the foremost society for research into all aspects of eating and drinking behavior, suggests that the key to losing weight could lie in manipulating our beliefs about how filling we think food will be before we eat it, suggesting that portion control is all a matter of perception.

Test subjects were more satisfied for longer periods of time after consuming varying quantities of [food](#) for which they were led to believe that portion sizes were larger than they actually were.

Memories about how satisfying previous meals were also played a causal role in determining how long those meals staved off [hunger](#). Together, these results suggest that expectations before eating and memory after eating play an important role in governing [appetite](#) and satiety.

In the first experiment, participants were shown the ingredients of a fruit smoothie. Half were shown a small portion of fruit and half were shown a large portion. They were then asked to assess the 'expected satiety' of the smoothie and to provide ratings before and three hours after [consumption](#). Participants who were shown the large portion of fruit reported significantly greater fullness, even though all participants consumed the same smaller quantity of fruit.

In a second experiment, researchers manipulated the 'actual' and 'perceived' amount of soup that people thought that they had consumed.

Using a soup bowl connected to a hidden pump beneath the bowl, the amount of soup in the bowl was increased or decreased as participants ate, without their knowledge. Three hours after the meal, it was the perceived (remembered) amount of soup in the bowl and not the actual amount of soup consumed that predicted post-meal hunger and fullness ratings.

The findings could have implications for more effective food labeling.

"The extent to which a food that can alleviate hunger is not determined solely by its physical size, energy content, and so on. Instead, it is influenced by prior experience with a food, which affects our beliefs and expectations about satiation. This has an immediate effect on the portion sizes that we select and an effect on the hunger that we experience after eating," said Dr. Brunstrom.

"Labels on 'light' and 'diet' foods might lead us to think we will not be satisfied by such foods, possibly leading us to eat more afterwards," added Dr. Brunstrom. "One way to militate against this, and indeed accentuate potential satiety effects, might be to emphasize the satiating properties of a food using labels such as 'satisfying' or 'hunger relieving'."

Provided by Society for the Study of Ingestive Behavior

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