

Smaller plates don't help you eat less when you're hungry: research

July 30 2018



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Tricking the brain into eating less by serving food on a smaller plate

doesn't necessarily work, according a new study by Ben-Gurion University of the Negev (BGU) researchers, who found that when people are food-deprived, they're more likely to identify a portion size accurately, no matter how it is served.

The new study, published in *Appetite*, debunks the popular diet trick based on the Delbouef illusion that predicts people will identify sizes differently when they are placed within a larger or smaller object. The classic experiment shows that people perceive a similar black circle is smaller when it embedded in a larger circle than when it is embedded in a smaller one.

"Plate size doesn't matter as much as we think it does," says Dr. Tzvi Ganel, head of the Laboratory for Visual Perception and Action in BGU's Department of Psychology. "Even if you're hungry and haven't eaten, or are trying to cut back on portions, a serving looks similar whether it fills a smaller plate or is surrounded by empty space on a larger one."

In the first study to examine the way [food](#) deprivation affects perception of food in different contexts, Dr. Ganel and BGU Ph.D. student Noa Zitron-Emanuel found that people who hadn't eaten for at least three hours were more likely to identify the proportions of pizza placed on larger and smaller trays correctly than people who had eaten recently.

This only worked when it applied to food. Both groups were similarly inaccurate when asked to compare the size of black circles and hubcaps placed within different sized circles. According to the researchers, this indicates that hunger stimulates stronger analytic processing that is not as easily fooled by the illusion.

"Over the last decade, restaurants and other food businesses have been using progressively smaller dishes to conform to the perceptual bias that

it will reduce food consumption," says Dr. Ganel. "This study debunks that notion. When people are hungry, especially when dieting, they are less likely to be fooled by the plate size, more likely to realize they are eating less and more prone to overeating later."

More information: Noa Zitron-Emanuel et al, Food deprivation reduces the susceptibility to size-contrast illusions, *Appetite* (2018). [DOI: 10.1016/j.appet.2018.06.006](https://doi.org/10.1016/j.appet.2018.06.006)

Provided by American Associates, Ben-Gurion University of the Negev

Citation: Smaller plates don't help you eat less when you're hungry: research (2018, July 30) retrieved 8 May 2024 from <https://medicalxpress.com/news/2018-07-smaller-plates-dont-youre-hungry.html>

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