

Expectations, of course, are not limited to food. When you invite people to a movie, you can increase their enjoyment by mentioning that it got great reviews. This is also essential for building the reputation of a brand or product. That's what marketing is all about—providing information that will heighten someone's anticipated and real pleasure. But do expectations created by marketing really change our enjoyment?

I'm sure you remember the famous "Pepsi Challenge" ads on television (or at least you may have heard of them). The ads consisted of people chosen at random, tasting Coke and Pepsi and remarking about which they liked better. These ads, created by Pepsi, announced that people preferred Pepsi to Coke. At the same time, the ads for Coke proclaimed that people preferred Coke to Pepsi. How could that be? Were the two companies fudging their statistics?

The answer is in the different ways the two companies evaluated their products. Coke's market research was said to be based on consumers' preferences when they could see what they were drinking, including the famous red trademark. While Pepsi ran its challenge using blind tasting and standard plastic cups marked M and Q. Could it be that Pepsi tasted better in a blind taste test but that Coke tasted better in a non-blind (sighted) test?

To better understand the puzzle of Coke versus Pepsi, a terrific group of neuroscientists—Sam McClure, Jian Li, Damon Tomlin, Kim Cypert, Latané Montague, and Read Montague—conducted their own blind and non-blind taste test of Coke and Pepsi. The modern twist on this test was supplied by a functional magnetic resonance imaging (fMRI) machine. With this machine, the researchers could monitor the activity of the participants' brains while they consumed the drinks.

Tasting drinks while one is in an fMRI is not simple, by