

tube, tearing, inflating the lungs, stretching, and signaling drowsiness.” Yet all of these, Provine says, “may be incidental to its primal function—which may be something as unanticipated as sculpting the articulation of the gaping jaw during embryonic development.”

People begin to yawn early in their lives. Indeed, yawning has been observed in three-month-old fetuses—evolutionary evidence of how ancient the behavior is. It’s the contagious quality of the activity that’s especially intriguing. Provine reports that when test subjects watched a five-minute videotape of a man repeatedly yawning, they were more likely to yawn themselves (55 percent did) than when they viewed a tape of the same man smiling. In fact, viewers didn’t even have to see the man’s gaping mouth. It was apparently “the overall pattern of the yawning face and upper body” that produced a response, not any one facial feature. (That’s why politely putting a hand in front of your yawning mouth won’t halt the contagion.)

“Contagious yawning definitely does not involve a conscious desire to replicate the observed act,” Provine observes, but it’s possible, as some research into brain activity suggests, that someone who “catches” a yawn may be unconsciously expressing “a primal form of empathy.” Thus, contagious yawning can be linked to sociality. Some neurological and psychiatric disorders, such as schizophrenia and autism, that leave patients “deficient in their ability to infer or empathize with what others want,” apparently reduce as well their susceptibility to contagious yawning.

Provine believes that further study

will reveal the potential of using yawning to develop theories of mind and to help us better understand certain neuropathologies and psychopathologies. One day we may even come to grasp the circumstances of yawning’s evolutionary origin and define its primal purpose. Until then, the imperfectly understood activity will be, for Provine, “a reminder that ancient and unconscious behavior lurks beneath the veneer of culture, rationality, and language, continuing to influence our lives.”

SCIENCE & TECHNOLOGY

It’s the Portions, Stupid!

THE SOURCE: “De-Marketing Obesity” by Brian Wansink and Mike Huckabee in *California Management Review*, Summer 2005.

WITH OBESITY ON THE RISE the food industry has been plagued by fears of becoming “the tobacco industry of the new millennium.” Its first response was denial. Then it took refuge in consumer choice. But Americans kept ordering Whoppers. It’s now time, argue Brian Wansink, of Cornell University’s Food and Brand Lab, and Arkansas governor Mike Huckabee, for the industry (and its critics) to come to grips with reality: Human nature follows the path of least effort. People eat what’s easiest to eat. And the genetically programmed taste for salt, fat, and sugar isn’t about to go away.

When researchers compared a group of office workers who had bowls of Hershey’s Kisses placed on their desks with another group whose chocolates sat six feet away, they

found that those with the easier access ate nearly twice as much candy. Bigger food packages also encourage more consumption. For example, consumers given a jumbo box of spaghetti and asked to create a

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meal for two will use 15 to 48 percent more food than people given a smaller box.

But research may also point to a solution: Making people more aware of how much they’re eating encourages them to cut back. In a University of Pennsylvania study, one group of participants was given a tube of potato chips with every seventh chip dyed red, a second group a tube with every 14th chip dyed red, and a third group a tube with no dyed chips. People in the first group ate an average of only 10 chips, those in the second group 15, and those with no marked chips 22.

The lesson for manufacturers: By offering smaller package sizes or pre-packaged individual servings, they can make it easier for people to stop eating. Coca-Cola’s new eight-ounce cans—a third smaller than the standard size—are an example. Consumers even seem willing to pay more for the additional packaging that smaller portions require.

When it comes to overcoming those hard-wired human tastes for salt, fat, and sugar, a bit of deviousness may be needed—though Wansink and Huckabee don’t put it that

SCIENCE & TECHNOLOGY

A Husbandman's Place

THE SOURCE: "Renewing Husbandry" by Wendell Berry, in *Orion*, Sept.–Oct. 2005.

way. They note that human perceptions of taste are far more open to the power of suggestion than we generally realize. Give test subjects an ordinary energy bar, for example, with a label falsely stating that it contains "10 grams of soy protein," and they'll rate it as less tasty than other folks will who know the truth. (Most people assume that soy tastes bad, according to the authors.) The lesson: Tasty words make tastier foods.

But there are some words food producers should avoid. Consumers who are told that a product is "new" and "good for them" will assume that it doesn't taste very good—as McDonald's learned when its McLean sandwich flopped. It's better to reduce the harmful contents of foods quietly—by making slight alterations, such as replacing fat with water, fiber filler, or air, while doing one's best to maintain their perceived taste.

What about product labeling? Wansink and Huckabee are skeptical that people pay close attention. A study of customers at Subway, which touts the dietetic sandwiches it includes on its menu and provides oodles of information about its offerings, found that those who order subs dripping with mayonnaise and cheese tend to be influenced by the advertising rather than the information; they vastly underestimate how many calories they're consuming.

It wouldn't take much to make America slimmer—a 10 percent reduction in daily calorie consumption would do the trick for most people. If the food industry doesn't get behind the cause, the authors warn, a rising tide of lawsuits and regulations will ensure that corporate profits, at least, get thinner.

WHEN GAS-POWERED TRACTORS appeared on the landscape a century ago, farmers began to lose their connection with the farm. To mourn that loss isn't merely to wax nostalgic, but to recognize the damage that mechanization and modern agricultural "science" have done to our world, says Wendell Berry, the noted writer and Kentucky farmer. "Husbandry"—the word itself sounds quaint from disuse—has become nearly obsolete.

"Husbandry is the name of all

the practices that sustain life by connecting us conservingly to our places and our world; it is the art of keeping tied all the strands in the living network that sustains us," writes Berry. "Most and perhaps all of industrial agriculture's manifest failures appear to be the result of an attempt to make the land produce without husbandry."

As farming became more industrialized, after World War II, farm families stopped producing the food for their own tables; economic imperatives withered the organic relationship between farmer and farm.

In reducing the art of farming to "animal science" and "soil science," says Berry, agriculturalists oversimplified it. "The husband, unlike the



One of modern agriculture's dehumanizing effects, say critics such as Wendell Berry, is a loss of human sympathy for animals, as evidenced by conditions on huge poultry farms such as this.