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Real Food vs. Nutritionism: How Food Science Has Failed Us

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A food article doesn't have to be just another compilation of the best restaurants to eat at when you are in "such and such" city, according to Michael Pollan, professor of journalism at the University of California at Berkeley, but rather a marvelous piece on how food science has ruined the way we eat. Pollan, author of *Botany of Desire* and *The Omnivore's Dilemma*, has written a recent article about the phenomenon which he calls "nutritionism," that has turned real food into simply a delivery system for particular nutrients.

In his cover story for *The New York Times Magazine* (Jan. 28, 2007 issue), titled "Unhappy Meals," Pollan tackles such topics as reductionism and the close relationship between the food industry, nutritional science and journalism. He lifts the curtain behind large diet studies to reveal the small, inadequate man pulling the levers in one case faulty assumptions and unreliable data.

Let's review some of Pollan's highlights, including:

- Eat food, but not too much. Mostly plants.
- "More or less" is the short answer to the supposedly complicated and confusing question of what we humans should eat in order to attain maximum health.

Humans have eaten well for millennia - that is, when they could get their hands on food. For a long time, food was just food and if it had not yet spoiled, the assumption was that it was good for you. The only trick to food was finding it. According to Pollan, it was not until the late 1970s that food began to take a back seat to nutrients. In 1977, Senator George McGovern headed the Senate Select Committee on Nutrition. The committee determined that eating too much meat and dairy led to higher incidents of cardiovascular disease. The recommendation: Americans should eat less meat and dairy. Well, the meat and dairy industries leaned on the committee so hard that the committee soon came up with a slightly different wording than the original. What they officially recommended was to "choose meats, poultry and fish that will reduce saturated fat intake."

There are two points of interest here. The first is that a recommendation to eat less of something (meat and dairy) had become a recommendation to eat more of something, foods with less saturated fat. The second point is that specific foods, which happen to have strong industry lobbies, were not the target anymore.

Politics had reached the science and culture of food. Molecules, which don't have lobbyists in Congress, are now the points of contention. Since we can't know what nutrients are in foods with our own senses, it is now left up to the experts to let us know what nutrients are necessary to eat, and in what amounts. No wonder diets have become so controversial. By the way, McGovern, a three-term senator, was defeated in his re-election bid in the next election. A lesson was learned: Don't provoke powerful food lobbies.

In 1982, the National Academy of Sciences issued a major report on diet and cancer. In keeping

with the precedent set by the McGovern committee, nutrients, not foods, were the focus. The media took up the new paradigm and from that point on; foods took a back seat to nutrients. It was the rise of *nutritionism*, a phrase coined by the Australian sociologist Gyorgy Scrinis.

Nutritionism is the ideology, not science, that the way to understand food is through its constituents. This reductionist view has severe limitations. Western science is ideally suited to examine one variable at a time - so it does. However, food, diet and culture are extremely complicated processes that can't possibly be isolated into single variables to be studied. Take, for instance, Chinese herbal medicine and a single herb, *ginseng*. Are the qualities that are desired in the root of *ginseng* actually only attributable to ginsenosides, or are there a multitude of other phytonutrients that contribute to its effects? Now put the single herb into a formula with several other, equally complex plant, animal or mineral substances and give it to a unique individual with complex behaviors, including digestive idiosyncrasies and emotional and behavioral patterns. Have them take this formula in varying doses over periods of time under multiple conditions, and try to come up with a role that a single constituent would have regarding a particular outcome. Studies on single nutrients are always suspect, because it is impossible to truly isolate a compound's effects.

All compounds act in relationship to what is around them. This is perhaps why studies on beta-carotene find that it actually may be harmful, rather than helpful, in relationship to cancer. Beta-carotene, isolated, is not the same as beta-carotene in the context of the carrot. The carrot is helpful; the isolated beta-carotene is not. "The problem with nutrient-by-nutrient nutrition science is that it takes the nutrient out of the context of food, the food out of the context of diet and the diet out of the context of lifestyle," states NYU nutritionist Marion Nestle.

Foods have simply become the containers of nutrients. "Cholesterol-free" on a label implies this food item is healthy. Hey, gasoline is cholesterol-free as well. The problem is we're focusing on the invisible known molecules and forgetting about the actual food itself. Now, healthy eating is in the realm of the experts in the white coats who inform the public about what to eat. This information comes to us via the media and advertising. Both the food science and media are funded primarily by the food industry. We are told that we can't safely just consume food, the same foods that humans have eaten safely for millennia, without knowing what it was comprised of. This would be irresponsible.

Since the McGovern recommendation, the subtle hypnotic message has been to "eat more *nutrients* that are good for you" - never simply "eat less." Over the past 30 years, we are eating more and more. We have a culture that creates more cancer, heart disease and obesity than cultures that maintain traditional diets. When people migrate to our country, they become less healthy within a generation. It's not the genetics. It's the diet and lifestyle.

Another point worth noting: We are losing the complexity and variety of the traditional diets in favor of the simple mass-production crops. Nearly two-thirds of total calories consumed in this country come from only four crops: wheat, corn, soy and rice. This is a far cry from the nearly 80,000 known edible species that humans have consumed historically and the approximately 3,000 species that once were in common use.

Also, we have shifted the ratio of omega-6 to omega-3 oils drastically from traditional diets, by shifting from traditional foods. We have shifted from relying on our culture and customs around food to relying on expert opinion, which changes with the latest studies. We have lost or are losing the reliable wisdom of many years of trial and error, and the common, collective wisdom of our ancestors.

How Do We Get Out of This Mess?

Pollan's wonderful words of advice, which many of us already adhere to, is best to behold in simple, plain English:

1. Don't eat anything your great-grandmother wouldn't recognize as food.
2. Avoid food products bearing health claims. (Real food doesn't come with labels.)
3. Avoid the supermarkets; frequent farmers markets instead.
4. Pay more; eat less. Go for quality over quantity. Organic is worth the price. It's good for us and good for the planet.

Rarely do I write an article extolling the attributes of another author, but Michael Pollan has served up a real gem and I feel we should give credit where credit is due. And thank you to *The New York Times Magazine* for giving wholistic medical practitioners a voice.

APRIL 2007