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Sub-Standard Standards

by Liz Casaletto

(English 1101)

American consumers are at a disadvantage, and they do not even know it. When it comes to processed food and over-the-counter nutrition supplements, it is nearly impossible to know exactly what chemicals are contained inside, and more importantly, the potential side effects and interactions those chemicals can have on the body. An example that illustrates this idea is the major effects that grapefruit juice can have on the absorption of pharmaceuticals in the body, something that relatively few people were aware of until recently. The Food and Drug Administration's publication about this issue explains that "grapefruit juice and fresh grapefruit can interfere with the action of some prescription drugs" ("Grapefruit..."). The article consults Shiew Mei Huang, the director of the Food and Drug Administration's Office of Clinical Pharmacology. She stated that "the juice increases the absorption of the drug into the blood stream," and this leads to "a higher concentration of a drug" in the body (qtd. in "Grapefruit..."). High concentration levels of certain drugs will result in a higher likelihood of adverse effects, some of these being potentially dangerous.

If something as innocent-seeming as grapefruit juice can react with medications in such a drastic way, there is an equal concern about the chemicals present in processed foods and over-the-counter supplements. Because of this, the Food and Drug Administration should require three things: 1) that all food producers must transparently represent every chemical, no matter how long-winded or small in amount, either on the food's label or on the food's corresponding website; 2) that nutrition supplement companies must follow standards regarding consistent potency and dosage; and 3) that consumers wishing to purchase over-the-counter supplements must consult with a trained medical professional before being able to start a supplement regimen of any kind. This system would allow for the best of both worlds—consumers will still feel free to do as they wish with their bodies, but they will now be less in the dark about the mystery chemicals they consume.

The active ingredients in over-the-counter nutrition supplements are often found in naturally-occurring herbs and plants. Many of these plants have been used for centuries already by healers and medicine men, believing them to be able to rid the body of sickness and promote a long life. Things are not so much different now. "Nutraceuticals," a word used to refer to the thousands upon thousands of differing vitamin, mineral, and herbal supplements on the market, are extremely popular; although the modern world has evolved to depend on scientific research before pharmaceuticals can be given to the public, nutraceutical standards have not kept up.

In a *New York Times* article titled "Miracle in a Bottle," author Michael Specter explains that "[in] 1994, when Congress passed a law that deregulated the supplement industry and opened it up to a flood of new products, the use of largely unproved herbal remedies...has increased as rapidly as the use of any commonly prescribed drug" (1). The nature of the active components used to make supplements means that different samples of plants or herbs can vary wildly in potency. Specter states that "the absence of effective manufacturing standards in the United States means that even consumers can't rely on commercial formulas...[and] the herbal product that you buy tomorrow may be different biologically from the same product purchased next month" (8). The lack of manufacturing standards poses a serious danger to consumers: different dosages and potencies of an ingredient can interact in unexpected ways with the body, especially when other medications are involved.

Specter visited Basic Research, a privately-held conglomerate that distributes the popular diet supplement Zantrex-3. Although Basic Research allegedly takes these variables into consideration and has strict testing standards, he was reminded by Dennis Gay, Basic Research's president and CEO, that "[i]f [Specter thinks] we are a sleazy operation, remember: we could do it for half the price" (8). The fact is, these nutraceutical companies rely on an honor system—their products are not regulated. If the Food and Drug Administration was to step in and set standards for the nutraceutical industry in regards to consistent potency and dosage, many potential health issues could be prevented, and we would be able to see the true effects that different supplements have on the body.

Through the popularity of nutraceuticals, we can see that Americans seem to accept the ingestion of chemicals in their daily lives, and their acceptance expands much further than this specific area of consumerism. Nutraceuticals are a huge industry, dwarfed only by another industry: processed foods. The vast majority of the foods we eat will have the words "artificial flavor," "natural flavor," "artificial color," or "natural color" printed in the list of ingredients on the label; however, most consumers do not give these terms any second thought. In reality, these are catch-all terms used to lump together and represent all of the chemicals in the food that are added after processing in order to enhance flavor and color that was lost at some point in the food's lifespan.

These terms are misleading and keep most consumers from questioning the food's true ingredients. Eric Schlosser, author of "Why McDonald's Fries Taste So Good," an article published in *The Atlantic*, spoke with Terry Acree, a professor of food science at Cornell University, and learned that "natural" flavors differ from "artificial" flavors only when it comes to the process used to make them. Acree said that a "natural" flavor is simply "a flavor that's been derived with an out-of-date technology" (qtd. in Schlosser 5). Schlosser stated that natural and artificial flavors "sometimes contain exactly the same chemicals, produced through different methods" (5). Even more surprising is that both types of flavors "are now manufactured at the same chemical plants, places that few people would associate with Mother Nature" (5).

Another huge problem with these catch-all terms is that they simply do not state each and every chemical inside of the food. This is a concern for those who have any sort of food allergy, those with any sort of dietary restriction (such as veganism or Kosher), and those who just want to be aware of what exactly they are putting into their bodies. For example, an ingredient called carmine, used to add red color to food, is "made from the desiccated bodies of female *Dactylopius coccus* Costa, a small [beetle] harvested mainly in Peru and the Canary Islands" (Schlosser 6). Someone who practices veganism cannot eat any foods containing this red dye, but if carmine is lumped together under the term "natural color," they have no way of knowing. Moreover, Schlosser explains that carmine can also cause allergic reactions, and many religious dietary restrictions would not allow it.

Some groups with special dietary restrictions have already begun to take action. Schlosser noted in his article, written in 2001, that the "Vegetarian Legal Action Network recently petitioned the FDA to issue new labeling requirements for foods that contain natural flavors...[and] to list the basic origins of their flavors on their labels" (Schlosser 6). It is simply unfair that those with dietary restrictions are unable to know exactly what they are eating, and if food's label or website were required to list each and every ingredient, many people (with or without restrictions) might second guess eating so many processed foods.

The chemicals and ingredients used to make nutraceuticals and flavor/color additives undergo an alarmingly low level of safety testing before they are produced in mass quantities and sold to the public. Schlosser divulges that the Food and Drug Administration "does not require companies to disclose the ingredients of their color or flavor additives so long as all the chemicals in them are considered by the agency to be GRAS ('generally recognized as safe')" (4). The GRAS page of the Food and Drug Administration's government website explains in a bit more detail: "The use of a food substance may be GRAS either through scientific procedures or, for a substance used in

food before 1958, through experience based on common use in food” (U.S.). The idea of GRAS is concerning because of what its first letter stands for—“generally.” Just because something is generally safe does not mean that under a slightly different circumstance it cannot become very dangerous to the consumer. The majority of consumers do not give a second thought to eating processed foods multiple times a day, and food companies should not assume that if someone combines one bunch of GRAS chemicals with another bunch of GRAS chemicals, that person’s body will be able to handle it. The public should be able to access information about every chemical they consume in order to prevent any possible harm.

The safety standards in the nutraceutical industry are just as concerning. When Specter spoke with David Kessler, dean of the School of Medicine at the University of California at San Francisco and former Food and Drug Administration commissioner, he learned that the Food and Drug Administration does little to protect the health of nutraceutical consumers: “The supplement industry doesn’t have to report adverse events, so the FDA doesn’t have the data it needs to protect people. You cannot prove something is unsafe if you don’t have the data” (qtd. in Specter 5). As Kessler lamented, this is the ultimate catch-22, and what is even more shocking is that the public seems to be unaware of how unregulated the supplements they take almost religiously are. Specter cites the results of a Harris poll in his 2004 article, pointing out that “most people believe that if a supplement is on the market it must have been approved by some government agency [which is] not true” (4). Not only is safety of little concern to supplement-makers, the public is under a completely wrong impression that safety standards do, in fact, exist. This is creating a market of consumers that are eager to try new nutraceuticals because they are relatively concern-free and unsuspecting of possible ill effects, when, in reality, they should be just the opposite.

Americans place high importance on their freedom, and the ability to take whatever supplements they please falls under this ideology. As Loren D. Israelsen, executive director of the Utah Natural Products Alliance, said to Specter, “Americans believe they have the right to address their health problems in the way that seems most useful to them. Often, that means supplements. When the public senses that the government is trying to limit its access to this kind of thing, it always reacts with remarkable anger—people are even willing to shoulder a rifle over it. They are willing to believe anything if it brings them a little hope” (qtd. in Specter 2). The public should be able to access anything they believe could help them live a better life. However, those working in the supplement industry are banking on “hope” rather than real results.

When Specter met with Don Atkinson, the vice-president of sales for Basic Research, the distributor of Zantrex-3, Atkinson divulged his approach to selling the product: “Do you know what people are calling you for? It isn’t the pill. They are calling you for hope. That’s what they really want from you.... Our job is to give them hope” (qtd. in Specter 2). It is concerning that the goal of these powerful people is not to provide actual health benefits, but only to give buyers hope—a hope that often leads to disappointment when the supplement does not perform.

Hope can be a powerful healing tool, but if someone is ingesting something without knowing the possible ill health effects, they could end up worse than they were to begin with. In 2003, a popular over the counter weight-loss supplement containing ephedra was extremely popular, “bringing in a billion dollars a year and accounting for more than ten percent of the supplement industry’s annual sales” (Specter 5). A highly-publicized death resulted from the use of this supplement: “Steve Belcher, a twenty-three year-old pitcher for the Baltimore Orioles, died of heatstroke after taking an over-the-counter product that contained ephedra” (Specter 5). The active ingredient of ephedra, ephedrine, is a stimulant, meaning that when used in combination with another stimulant, caffeine, as it often was, it will raise blood pressure, put strain on the heart, increase the rate of metabolism, and boost adrenaline. After Belcher’s death, ephedra was banned by only three states until December of that year when the Food and Drug Administration announced it would prohibit any further sales. If a system had been in place that would require a potential purchaser to

meet with a healthcare professional before beginning a supplement regimen, Belcher's life could have been saved. Giving people hope can be a wonderful thing, but an explanation of the possible ill effects must also be provided. People cannot make educated decisions if they are not given all of the pertinent information.

There are many improvements we can make in the nutraceutical industry to protect the health of consumers. However, when it comes to processed foods, things are less black-and-white. The nature of the foods we eat now make color and flavor additives a necessity: "The canning, freezing, and dehydrating techniques used in processing destroy most of food's flavor—and so a vast industry has arisen in the United States to make processed foods more palatable" (Schlosser 2). Because 90% of the money we spend on food is spent on processed foods, and because they are both extremely cheap and "GRAS" (Schlosser 2, 4), additives are not going anywhere. However, this is no excuse for the mislabeling that is now commonplace.

Instead of the additive ingredients being lumped together as "natural/artificial flavor/color," there should be an exact listing of each and every ingredient that goes into a processed food. This can certainly become a reality when we look at how inexpensive these flavor and color additives really are: "The flavor in a twelve-ounce can of Coke costs about half a cent" (Schlosser 4). If these additives cost so little, companies should use some of their profit to implement a more informational system, either by printing out every single ingredient on the food's label, or providing an online look-up for each product's additives. Consumers with food allergies, religious or dietary restrictions, or those who just want to know exactly what they are consuming, have a right to know. Although the number ingredients in something like "artificial strawberry flavor" is very high (forty-eight to be exact), it does not mean the information should be ignored (Schlosser 4).

Overall, in America's modern market, valuable steps to protect the health of consumers are being overlooked. In a country where technology allows us information instantly at our fingertips, the majority of consumers are unaware of the chemicals they put in their bodies on a daily basis, and what negative effects they could pose. Although changing the current system may not be as easy or cut-and-dry as the ideas proposed here, something has got to change. Nutraceuticals affect the body just as much as any pharmaceutical, so there should be comparable restrictions. Similarly, just as consumers need to know the exact chemical makeup of the drugs they take, they should be just as knowledgeable about the foods they nourish themselves with. If we live in what is arguably the greatest country on the planet, why do we not have the highest standards when it comes to health and living the longest lives we can?

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