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Your **Supersized** Diet Is Our Concern

In 1999 The Centers for Disease Control and Prevention declared that obesity had emerged as a "growing epidemic" in the United States. Both prior to that pronouncement and in its wake, public health advocates have urged government action to take on this disease. However, these proposals have not been widely embraced. Implicit in some of the resistance to government involvement in our diets is the sense that diet is a personal choice; because the consequences fall essentially on each person alone, it is a matter of private concern and responsibility. But this is a misconception. A careful examination of the food market reveals that other people are unavoidably positioned within the elbow range of our fork-and-knife wielding fists. What we choose to eat affects their pocketbooks, what goods they are able to enjoy, the culture that molds their food decisions, our common physical environment, and even (if Gandhi had it right) the quality of our democracy. We have a clear stake in one another's dietary excesses, and the harm is broad enough to require ameliorative government policies.

What is excessive?

While public health officials have not reached a consensus on all elements of a healthy diet, the orthodox experts are consistent on many of the fundamentals. One assemblage of those recommendations is presented every five years in the *Dietary Guidelines for Americans*, issued jointly by the United

States Department of Agriculture and Department of Health and Human Services. This publication includes the familiar, though reconstructed, "food pyramid."

One measure of excess in the collective diet was made by Linda Scott Kantor of the USDA's Economic Research Service. She compared per capita food consumption with the serving recommendations of the food pyramid, and concluded that the diets of most Americans are not consistent with that guidance. While on average we do eat about the recommended amounts from the "grains," "meat and beans," and "vegetable" groups, we are deficient in dairy consumption, and even more so in fruit. However we eat sugars, fats, and oils in clear excess.

The high consumption of sugars, fats, and oils means that many Americans are eating too many calories. Over the last twenty years, adult daily caloric intake has increased by about 150 calories. That full increment adds an extra 15 pounds of body weight over the course of a year, and this additional poundage has become a particularly obvious indicator of our dietary excess ("Portion"). Clearly we are eating too much relative to the energy we expend through physical activity, and increasing numbers of us are too heavy.

For epidemiological purposes, adult obesity is defined in terms of the "body mass index," or BMI. This international standard relates height to weight and is obtained by multiplying weight (in pounds) by 703 and dividing that product by height (in inches) squared. By recent convention, "obese" is a BMI of 30 or more, and since the late 1970s the obese group grew from 15 percent to 27 percent of the population. "Overweight" refers to those with a BMI of 25 up to 30, and this group increased from 32 percent to 34 percent.

This sums to a full three-fifths of adult Americans being overweight or obese. Excess poundage on young people is also on the rise, and as with adults the trend accelerated about twenty years ago. The portion of 6 to 11 years olds that is overweight has nearly doubled to 13 percent. Among 12 to 19 year olds the occurrence nearly tripled to 14 percent (U. S. Department of Health and Human Services).

Food excesses and our “toxic” food environment

A familiar attitude toward overeating is to attribute responsibility for the behavior principally to the individuals who overindulge. As succinctly stated by a food industry researcher, “Americans are fat because we don’t use will power” (Paul). In explaining our increased caloric intake, to focus on our loss of will power or self-discipline is, in essence, to see those as independent or innate virtues that we have freely chosen to squander, or which have been exogenously degraded over the last twenty years. But this framing of human behavior, of course, explains nothing at all.

The USDA and DHHS also focus on individual responsibility. As stated upon the release of the 2000 update of the *Dietary Guidelines for Americans*, [t]he dietary guidelines give consumers the information they need to select the right kinds and amounts of food. But, ultimately, it is up to consumers to take action and follow the guidelines’ advice. “Government can shine the spotlight and direct resources to solving the problems of obesity and poor nutrition,” says USDA Secretary Daniel Glickman, “but only

individuals can commit themselves to good nutrition and good health" (Bren).

As early as 1985 the emphasis on poor choices made by individuals was among the "simple generalizations of the past" rejected by the National Institutes of Health. Instead, they argued "that obesity has multiple causes." Based on studies of "animal models of obesity, biochemical alterations in man and experimental animals, and the complex interactions of psychosocial and cultural factors that create susceptibility to human obesity," they asserted the disease to be "complex and deeply rooted in biologic systems" (NIH quoted in American).

Without doubt, understanding our biologic system is critical to understanding our eating excesses. A common assertion is that humans evolved in a scarce-food environment, and to improve the chances of survival in lean times, our distant ancestors learned to eat high calorie foods when they became available. This urge is now part of our genetic makeup. But while recent research efforts have sought to identify a "fat gene," no one has suggested that the rise in obesity in the past twenty years resulted from a change in genetics. Rather, what has changed is the social, physical, and cultural context which molds our decisions. To illustrate, consider the other culprit in the obesity story: Whether we choose to get exercise in completing local errands is encouraged or restricted by the layout of our communities, including the proximity of homes to stores and the safety of the walking and biking options. Much has been written concerning the current design of our physical

lives that has diminished our activity, and oft lamented are our increased reliance on automobiles and machines with screens.

While it is apparent that Americans are increasingly unable to resist the temptation of food, it is equally obvious that this phenomenon is systemic, with the majority of adults now suffering with this behavior. So to understand the behavioral modification that has occurred, we need to look further; and as soon as we move our focus from particular individuals to the common environment, a more illuminating explanation emerges. What has changed is the extent to which the temptations have grown. We now live in an environment which confronts us with greater opportunity and encouragement to eat in excess.

An important element of this new food environment is that we eat outside the home more often. Two decades ago 19 percent of our food energy consumption was eaten away from home; today it is 34 percent (Hunter). In 1970, 34 percent of our food spending went for eating out meals and snacks. By 1980 it was 39 percent (USDA Economic Research), and now it is about half (Nestle and Jacobson, 19). These statistics matter because "eating out" entails eating foods with more fat, saturated fat, and calories and confronting growing quantities of food (Liebman and Schardt, 10 and 6).

A critical determinant of how much people eat (after about the age of four; Lord) is how much is on the plate. People tend to eat the amount before them (Rozin, 66), and portion sizes have increased markedly since the 1980s ("Portion"). The economics of the larger servings are easy: Food is only part of what is covered by the restaurant tab. Diners are also paying for rent, advertising, packaging, and very significantly, labor. The marginal cost of

food is low, and consequently larger portions need add relatively little to the price that customers pay. This sales strategy has been widely adopted because Americans tend to conceptualize "value" as a lower price per bite (as opposed, for instance, to an enhanced quality of food.) And increased portion size is not something left at the eatery. As people have faced growing portions, the popular sense of what a "standard" serving is has grown, too. Nutrition writers are working hard to teach consumers the amounts of food in the various USDA defined "portions," e.g., the meat serving is about the size of a deck of cards, and the pasta serving of 1/2 cup is about the size of a small computer mouse ("Portion").

Clearly there are more opportunities to eat out. In 1982 there were 352,000 eating and drinking establishments in the United States. As of 1996 the number had reached 466,400. Among them are 170,000 fast food restaurants (Nestle and Jacobson, 19), which provide menus brimming with calories, fat, and cholesterol. Reportedly, McDonald's has the corporate goal of being within four minutes of every American (Brownell, 4).

Many of our youth need not "go out" to eat fast foods. Fast food franchises provide meals in more than 5000 schools (Bryant). These chains have also become a staple in the food courts that are now central to shopping malls, and are beginning to pop up in the "food marts" that increasingly accompany gasoline pumps. Those markets and other "convenience stores" are also becoming more common. In 1980 there were 35,800 such small grocery stores offering their food selections and extended hours. In 1997 the number had grown to 62,100 (U.S. Bureau of the Census).

Convenience stores are loaded with snack foods, and "snacking" between meals has become another common means for excessive food consumption. According to industry sources thirty percent of all calories are from snacks and one-third of Americans snack four or more times each day ("Fun"). The Snack Food Association reports that sales of chips, cheese puffs, cookies, and snack bars reached \$30 billion in 1999 (MacArthur). Here, too, portion sizes have grown, and bigger portions of candy, chips, popcorn and other "hedonistic" foods are particularly effective in prompting greater consumption. People partake of about 50 percent more when obtaining these in bigger packages, compared to only about 25 percent more of other foods (Liebman, "Supersize").

Vending machines are also part of the food environment. In schools alone vending sales of soda, chips, and candy are approaching \$1 billion per year ("How"). "Liquid candy" is available in 2.8 million drink machines which annually deliver more than 27 billion soft drinks. The 1997 annual report of the Coca-Cola Company stated its promotional strategy to place its products "within reach, everywhere you look: at the supermarkets, the video store, the soccer field, the gas station - everywhere" (Jacobson, "Liquid"). In 1997 the average consumption of all soda was 54 gallons, up from 35 gallons per person per year in 1980. Based on quantities sold, soda is far and away our leading beverage, and it is the leading source of sugar for the average American (Liebman, "Sugar").

Soda companies are prevalent in another aspect of the food environment that further encourages excessive consumption: they are huge advertisers. In 1997 Pepsi spent nearly \$200 million and Coca-Cola spent \$277 million to

encourage imbibing (Jacobson, "Liquid"). As with the other aspects of the food environment, these recent statistics reflect changes that have been on-going. In combination, the advertising budgets of soft drink companies rose by 28 percent from 1988 through the 1990s. Over the same time period, the promotional spending by candy and snack producers rose 40 percent, and restaurants spent 86 percent more (Liebman and Schardt, 12). Many of these and other food and beverage commercials target young people, and reach them even in the classroom, as millions of children are required to watch televised advertisements each school day. These food ads are among the 10,000 that are seen each year by the average American (Bryant), with fast food messages leading the way. In 1998 McDonald's alone spent \$1 billion on advertising (Nestle and Jacobson, 18).

Ready accessibility of the products and extensive advertising are important mechanisms that nurture consumer impulses to eat. Additional efforts are put into developing more tempting foods, many of which have little or no nutritional value. The development rate of new food products has increased more than five fold over twenty-five years ago, to more than 30,000 annually (Holmstrom). Additives are key to food design. These include the emulsifiers, starches, and gums to enhance "mouthfeel," and the minute amounts of chemicals to achieve the critically important dominant smell. Then come the fats, sugars, artificial sweeteners, colorings, and preservatives, aimed to enhance the taste, appearance, and shelf life. Incidentally, while most additives are safe (apart from encouraging unhealthy eating levels), there are some about

which uncertainties remain, and others that actually enhance the risk of disease (Jacobson, "Adding").

The broad point is that the increase in overweight and obese persons has occurred in an environment in which food temptations have grown. The increased availability and attractiveness of food prompted obesity expert Kelly Brownell to characterize our food environment as "toxic" (Brownell, 3). Clearly, this environment has emerged from the activities of consumers and producers, and it requires a non-orthodox perspective on how markets operate. Namely, aside from externalities, mainstream economists overlook that many of our "private" market actions affect people not directly involved in the exchange. In actuality, our individual choices in the food market weave together and affect the consumer behaviors of others. This perspective is requisite in explaining both the regional distinctiveness of diets around the world, and the enhanced odds of being obese if you are an American. Unfortunately, the changes that have made our food surroundings "toxic," that have enticed most Americans to overconsume, are working to have their way with all of us. Those who have not succumbed are in the shrinking minority. The excessive eating of the 60 percent who are overweight or obese is a legitimate community concern, because those indulgences are encouraged by and further encourage the toxic food environment that is common to all of society's members.

Health care costs

Science is emphatic: Carrying excess body weight is a significant health risk. In the United States obesity falls behind only smoking as the leading cause of preventable death, claiming an estimated 300,000 lives each

year (U. S. Department of Health and Human Services). All told obesity can lead to or aggravate more than thirty different medical conditions, from infertility and birth defects to sleep apnea, arthritis, heart disease, and cancers. It is also the major cause of diabetes, an "explosion" of which has accompanied the obesity epidemic. There was a 30 percent increase in the 1990s of type-2 diabetes (Bryant), including adolescents who were afflicted. Furthermore, recent research indicates that people need not reach "obese" in order to face increased risks. Slipping into the "overweight" BMI range enhances the chances of suffering from type-2 diabetes, high blood pressure, gallbladder disease, osteoporosis, and high blood cholesterol (Must, et al, 1526).

Clearly, dietary intemperance tends to harm health, and troubled health prompts costly treatments. A group of contributors to *The Journal of the American Association* concluded that if Americans fail to back off from our tendency to exceed normal body weights, "the health care system will increasingly be overwhelmed" with obesity-related illnesses (Must, et al, 1529). Anne Wolf and Graham Colditz sought to measure the total economic cost of adult obesity. They estimated the "direct" costs, such as hospital visits, physician visits, and medicines, to have been \$51.6 billion in 1995, which accounted for 5.7 percent of the nation's health care expenditures. They estimated the "indirect" costs at \$47.6 billion. These were the output lost due to missed or less productive work and premature death. However, due to lack of data their study did not include all obesity-related illnesses. Also, because they were measuring the costs of "obesity" they left out the cost of

being "overweight"; nor did they include the \$33 billion annually spent in attempts to lose weight. Despite these omissions, the estimated costs for 1995 summed to \$99.2 billion. In a subsequent interview, Colditz estimated the figure to have grown to \$117 billion in 2000 (U.S. Department of Health and Human Services).

While these costs do not constitute a neoclassical externality, they certainly are spread around to other people. For example, when an employer has to pay higher health care premiums and faces rising production costs due to greater worker absences or reduced productivity, the impact is not simply on the bottom line. Rather, to some extent, the expense is passed on to other employees in the form of lower compensation, which may mean a lower wage or less insurance coverage, or some combination of the two. Also, consumers of the firm's output may face a higher market price. In the cases of the uninsured or the government insured, the medical costs are passed along to some extent to medical providers who do *probono* work, and to tax payers.

My hamburger; your environment

Obesity and overweight aside, there is another dietary excess that has an independent adverse effect on health (the costs of which, by definition, are also excluded from the \$117 billion estimate). A person may enjoy a normal BMI, but if a high portion of calories comes from fats, the individual is at increased risk of heart disease, colon and rectal cancers, and stroke (Liebman, Diet). To the extent that the excessive fat intake comes from eating animals, the damage spreads beyond those adverse health effects.

The way industry prepares animals for the market has some significant external impacts on human health and the environment. For example, antibiotics have been fed to cows, chickens, and pigs in order to promote growth and prevent (not just treat) disease at a level eight times greater than the applications to treat human illnesses. This widespread use has magnified the opportunities for bacteria to become immune to the drugs and many bacteria have, in fact, already gained this resistance. This practice is a serious threat to our ability to treat infectious illnesses in humans (Mellon and Fondriest, 1). Another externality is global warming, as cow flatulence is a significant source of the greenhouse gas, methane. In this instance the negative spillover of eating beef is spread around the world.

Many of the externalities are more localized. In particular, we often degrade the environment when we grow crops. Pesticides and nitrates from fertilizers are a major cause of pollution as they run off into surface waters and seep into ground waters. Mining ground water for irrigation is a practice that often depletes aquifers faster than nature replenishes them. This is an ominous problem for the U.S. heartland. Topsoil erosion diminishes the ability to grow crops in the future, but it also harms today's water resources by contributing to siltation. Each of these problems is magnified by meat production. This is because it takes multiple pounds of grain to yield a single pound of meat. Beef is among the more grain intensive. After the cattle are in the feedlot, an extra seven pounds of feed are needed to obtain each extra pound of live weight cow (Brown, et al).

Another principal source of water pollution is animal waste. This problem has been made much worse by the recent preference for crowding animals into larger facilities, which also concentrates their excrement. On occasion, manure leaches out of the "lagoons" in which it is stored. One of the worst disasters occurred in 1995 when over 23 million gallons (over twice the Valdez accident) of raw sewage spilled into North Carolina's New River. Sometimes the problem is not faulty storage, but simple runoff. In Chino, California the runoff from dairy farms contaminated the water supply, requiring the construction of facilities to treat their ground water. In northwest Arkansas wastes from chicken facilities polluted three hundred miles of streams ("Is Piglet"). According to a report completed for U.S. Senator Tom Harkin, the total amount of animal manure produced nationwide each year is 2.8 trillion pounds, or 130 times the amount of human wastes (Silverstein). A ten-ounce beefsteak has the by-products of 33 pounds of cow feces and urine, much of it ending up in our fresh waters (Harkin).

The toll on human health includes miscarriages, birth defects, cancers, and suppressed immunities. Opportunities for work and recreation have been destroyed, and locales offering aesthetic and spiritual peace have been forfeited. There has also been a severe cost imposed on non-human lives. If more environmentally sound methods were used in raising animals, costs would be internalized by the meat industry, generally forcing them to charge higher prices. Faced with having to assume greater responsibility for their actions, meat producers would bring less flesh to market. The reduction in fat intake would improve the diets and health of many people.

From the orthodox perspective, the market would gain efficiency. Others would emphasize the enhancement of equity.

Common stake in equity

The likelihood of eating well is not random. A study by Shanthy Bowman, et al found that "African Americans, people with low income, males age 15 to 18, and those with a high school diploma or less education have lower quality diets" (2). Nor is the likelihood of being overweight or obese equal among demographic groups. Mexican Americans are more likely to exceed the overweight BMI cutoff than blacks, and blacks more so than whites. There are also gender disparities, but these differ across racial and ethnic categories. Among Mexican Americans, women are slightly more at risk (70 versus 69 percent), while for blacks the gender difference is more marked (69 percent versus 58 percent). Among whites, males are more likely than females to carry excess poundage (62 versus 47 percent), but women are more likely to be obese (23 versus 21 percent). For women in all groups there is a clear inverse relationship between income level and the incidence of being overweight or obese. Also among whites, adolescents are more likely to be overweight if their family has a lower income (U.S. Department of Health and Human Services). Clearly something is somehow inviting, imposing, or failing to counter the problem more in some demographic groups than in others.

Food assistance programs, both public and private, support the value of living in a society without hunger and malnutrition. However, malnutrition comes not only in the form of insufficiency, but also in the

form of excess. To the extent that we stake a common claim to living in a fair society, and to the extent that healthy diets are disproportionately absent from the lives of the poor, the ethnic minorities, and women, then what these people eat becomes a common concern.

Concern for equity also directs attention to the nation's children. Clearly, the food environment is harming youngsters. Public health officials warn that unhealthy eating practices, food preferences, and obesity established at a young age are difficult to overcome later in life. This does not bode well for our society's future waistlines or health or pocketbooks.

Gandhi, food, and democracy

An unconventional perspective on how our diets link us comes from the life and teachings of Mahatma Gandhi. Gandhi considered diet crucial to India's independence struggle and to the suitability of the Indian people to assume the responsibilities of democracy. He imposed very strict dietary restraints on himself and he stressed that Indians ought to follow his example. As he saw it, the essence of democracy is "self-rule." If individuals were unable to rule themselves, if they lacked discipline to control their gluttonous urges, then their shared exercise in governmental self-rule would suffer (Alter). Today we have an obvious stake in the quality of our own democratic self-rule. At a fundamental level the toxic food environment hinders our potentials for self-restraint and self-sacrifice. According to the teachings of the Gandhian movement, we have a

collective interest in constructing a new environment that nurtures effective self-rule: it will improve our democracy.

One specific function of the democratic process that is tied to personal food consumption is society's allocation of resources. Were less spent on unhealthy and environmentally detrimental food and the accompanying health care needs, huge sums of money would become available for other purposes. Under the assumption that goods and services provided by government are "normal," we could expect more of them. For example, if for one week we opted to forgo soft drinks, \$1 billion would become available to devote to our local schools. (Gandhi would be pleased with our self-sacrifice.) Obviously the direct and indirect expenses we incur because of our insistence on costly unhealthy eating leaves us less willing and able to finance publicly provided goods.

Policy options

Clearly, one's unhealthy eating is not one's private concern. Health care costs are shared, and the provision of public goods is diminished. Our food decisions come out of our common food environment, which is applying increasing pressure on all of us to join in the excesses. Indulgences in meat are encouraged by burdening our common physical environment. The temptations and inducements to eat weaken our self command, which may even diminish the quality of our democracy. All told, these effects on others are significant enough to warrant public policies to encourage healthier eating.

Of course many government policies are already influencing our food choices. New restaurants, including franchisees of McDonald's and Burger

King, are subsidized with federal monies. They have received tax credits worth hundreds of millions of dollars for "training" their workers, this despite their aggressive, successful steps to deskill the jobs (Schlosser, 72). Advertisements for unhealthy foods aimed at children are subsidized through business tax deductions. Beef production is subsidized through substantial tax breaks to landowners who raise cattle. Unlike other recreational activities, the consumption of non-nutritious food is tax-free in many localities and is subsidized nationwide through the food stamp program. In most areas the concentrated, industrial-style method for raising animals is allowed. Clearly, either by acting or not acting, government is in the middle of things, making its impact felt. So, the issue is not whether government should sway our food choices, but rather which behaviors the government should encourage.

In 2001, "The Surgeon General's Call To Action To Prevent and Decrease Overweight and Obesity" promoted several options for addressing both the dietary and physical activity grounds for the obesity epidemic. The document explicitly recognized that the problem has multiple dimensions, and recommended a multidimensional response. Concerning diet, its major thrusts were to provide the public with more accurate information and to encourage the provision of more healthy food options so that individuals are equipped to make better choices. Its failure is its only faint appreciation for the massive role that profit-seeking has played in creating the current food environment. For example, it promotes "community-based advertising campaigns to balance messages that may encourage consumption of excess

calories ... by fast food industries" (24). To suggest either that communities could access the funds necessary to "balance" fast food advertisers, or to allow only that the billions of dollars spent on persuasion "may" prompt excessive eating is to betray the realities of the toxic food environment.

A more aggressive policy agenda has been advanced by Marion Nestle and Michael Jacobson. While their comprehensive plan has several elements in common with the Surgeon General's, they go further in some critical regards. For example, they recommend the restriction of advertising of non-nutritious foods directed at young people and the elimination of soda, chips, and cookies sales in schools. They also argue for subsidizing the purchases of fruits and vegetables, and for wider taxation on low-nutrition, high fat foods. "Wider," because in fact, seventeen states (including California, New York, and Texas) already tax soda and often tax snack foods. These taxes raise \$1 billion annually, with the funds usually going into the jurisdictions' general coffers (Jacobson and Brownell, 854). Nestle and Jacobson urge that we extend these taxes nationwide and earmark the revenues to take on obesity. Along with the Surgeon General they recommend providing more public information concerning healthy eating, and they also provide evidence that such a program can be influential. The Center for Science in the Public Interest, a non-profit organization headed by Jacobson, has established that a public information campaign can work. In a seven week media effort directed at two West Virginian communities, their "1% Or Less" program doubled the market share of fat-free and low-fat milk (20-21).

Beyond food

The implementation of the Nestle/Jacobson agenda and the wide discussion that this action would require could be the basis for a more profound potential. Our struggle with food is an opportunity to gain insight into our relationship with other consumables. Food is just one example of our tendency toward gluttonous consumption.

Some scientists argue that "greed" is built into human genetic makeup, because early on those who became programmed to be more insistent in acquiring were more likely to survive. But the proponents of this view acknowledge a conceptual difficulty, namely that our high levels of material consumption have failed to make us any happier than we were a century ago. Furthermore, public polling demonstrates that there is essentially no happiness gap among today's various income groups, and despite our wealth we have an exceptionally high percentage of clinically depressed people. It appears that as we fix our attention, hopes, and energies on acquiring and consuming, we trade off other "built-in" well-being enhancers. Those include our family relationships, community ties, and spiritual practices (Solman). Some ecologists would add that the toll consumerism has taken on the environment is both reflective of and contributes to an alienation from our "home," the Earth. If we do indeed have a biological impulse to amass material wealth, the pervasive directive from our economic system and dominant culture becomes even more portentous. That consumerist message is clarion: To reward yourself, to demonstrate you are worthy, to be happy: Consume more!

The world's great spiritual traditions emphasize the importance of self-awareness. If we can become self-aware, if we can wake up to it, our intimate experience with food can provide instruction that transcends our diets. Many of us are undeniably beckoned to eat well beyond our levels of true need. The promises are grand: pleasure, comfort, excitement, fascination, fulfillment, and control. But beyond the moments of ingestion, we experience varying degrees of discomfort, ill health, dissatisfaction, and a sense of being out of control. Sages have agreed: If we pay close attention we can learn that despite our own impulses and the social and economic encouragement, "Gluttony is satisfying" is ultimately untrue. Excessive consumption of food, and excessive consumption in general, is harmful, even deadly. As some glimpse that lesson, we begin the work of transforming our preoccupations, our relationships, our institutions, and our environments. We work to create a more life-enhancing society.

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