

Drifting Away from Nature: The Cost of Convenience

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Abstract

Time devoted to preparing meals has dwindled as lives have become highly structured and over-committed. To fit meals into hectic schedules, emphasis is placed on convenience at almost all costs. Quick meals do serve the purpose of freeing time for other things. Unfortunately, foods requiring little or no preparation are unlikely, in most instances, to resemble natural food. Indeed, they are likely to be culminations of intensive processing methods that render food not only unrecognizable as something from nature but also high in calories and additives and low in organic nutritive value. The separation of food from natural sources parallels a growing human disconnect with the natural world in general. The more people ignore the places from which foods originate, the greater the likelihood that caloric intake stems from energy-dense, nutritionally destitute “foods.” One of the many causes of the obesity epidemic in affluent society is the abundance and relative affordability of these so-called foods. Convenience is a great boon to busy peoples’ schedules, but we need to be aware of the overall cost to human health. Reconnections with nature and our food supply are necessary to fully appreciate what we have lost and what we stand to gain.

Introduction

The alarming increase in the incidence of obesity over the last several decades has justifiably become fodder for copious research concerning human dietary and behavioral patterns, genetic predispositions, and economic policies that might explain the collective expansion of the human waistline. Ultimately, the goal in discerning the cause(s) of the world’s overweight problem would be the ability to ameliorate the negative effects on health by implementing appropriate steps of intervention. However, and perhaps not surprisingly, this process has been easier said than done. First, the potential causes are multitudinous and have become so deeply entrenched in cultural and psychological patterns of day to day living and commerce that single solutions like “consumer education,” though well intentioned and necessary, are likely to fail in isolation. Second, the data from current research are not always definitive and are sometimes contradictory. As contributing factors to the obesity epidemic, sedentary lifestyles, electronic media, processed foods, genetics, family structure, socioeconomic status and other elements have been investigated, all with thorough validity. To definitively explain the dramatic rise in the incidence of overweight and obesity, however, the true root of the problem must be distinguished from the many peripheral causes. In fact all of the factors

mentioned above do have a common thread, and that thread is the cultivation of a culture that is increasingly and consistently distancing itself from the natural (that is, non-human) world. The rise in overweight/obesity coincidentally parallels this distancing in two significant, documented ways: 1) the lack of human contact with nature and natural environments, and 2) the ever-growing disconnect between our food and the natural environment.

One of the primary culprits receiving blame in the face of the obesity epidemic is sedentary lifestyle. Yet when attempting to pin down the usual suspects that are thought to contribute most to weight gain in this regard, the research isn't entirely clear. For example, some studies seem to indicate that television viewing is positively correlated with increased body mass index (BMI) in children.^{1,2,3,4} Others seem to indicate that television per se has little if any effect on childhood BMI and that television viewing has actually decreased since the beginning of the obesity epidemic.^{5,6} Physical activity figures prominently in the definition of a lifestyle that is not sedentary, yet when looking specifically at, say, children's participation in organized sports, data are discrepant. Studies range from noting that participation in organized sports has generally increased as children have gotten heavier⁷ to stating that such participation is actually

¹ H. Kaur, ML Hyder, WS Poston, "Childhood overweight: an expanding problem," *Treatments in Endocrinology* 2, no. 6 (2003): .

² B. Jouret, N Ahluwalia, C Cristini, M Dupuy, L Negre-Pages, H Grandjean, M Tauber, "Factors associated with overweight in preschool-age children in southwestern France," *The American Journal of Clinical Nutrition* 85, no. 6 (June 2007): .

³ MS Tremblay, JD Willms, "Is the Canadian childhood obesity epidemic related to physical inactivity?," *International Journal of Obesity* 27 (2003): .

⁴ Y. Manios, N Yiannakouris, C Papoutsakis, G Moschonis, F Magkos, K Skenderi, A Zampelas, "Behavioral and physiological indices related to BMI in a cohort of primary schoolchildren in Greece," *American Journal of Human Biology* 16, no. 6 (October 2004): .

⁵ R. Sturm, "Childhood obesity - what we can learn from existing data on societal trends, part 1," *Preventing Chronic Disease* 2, no. 1 (January 2005): .

⁶ FK Gordon, EL Ferguson, V Toafa, T-E Henry, A Goulding, AM Grant, BE Guthrie, "High levels of childhood obesity observed among 3- to 7-year-old New Zealand Pacific children is a public health concern," *The Journal of Nutrition* 133 (November 2003): .

⁷ R. Sturm, "Childhood obesity - what we can learn from existing data on societal trends, part 1," *Preventing Chronic Disease* 2, no. 1 (January 2005): .

positively correlated with overweight in preschool-age girls⁸ to reporting that organized sport participation is either negatively or not associated with overweight and obesity.^{9,10} Clearly the specific details involved in the cause of overweight and obesity are difficult to pinpoint when so many factors are at play. For example, to what extent are sedentary activities other than watching television (such as playing video games or watching movies) responsible for inactivity in children? What role do physical activities other than organized sports (such as bike riding or playing hide-and-seek) have in keeping children active? As beneficial as the exercise is, a significant portion of the time in organized sports may be spent listening to instruction or standing while waiting for others to have their turns in games or practices. In an analysis of how children's use of time has changed in conjunction with the rise in childhood obesity, Sturm¹¹ notes that because of increased time spent away from home, children's free time, including unstructured playtime, has declined dramatically, while participation in organized sports has increased. This is an interesting finding in light of the previously stated ambiguity over whether highly structured activity (i.e. organized sports) helps or harms the quest to curb childhood overweight and obesity. Whether inactivity is due to television or something else, whether organized sports do or do not help in the battle of the bulge, in neither case are children interacting with nature, and the documented decline in unstructured free time supports this contention.

⁸ B. Jouret, N Ahluwalia, C Cristini, M Dupuy, L Negre-Pages, H Grandjean, M Tauber, "Factors associated with overweight in preschool-age children in southwestern France," *The American Journal of Clinical Nutrition* 85, no. 6 (June 2007): .

⁹ MS Tremblay, JD Willms, "Is the Canadian childhood obesity epidemic related to physical inactivity?," *International Journal of Obesity* 27 (2003): .

¹⁰ FK Gordon, EL Ferguson, V Toafa, T-E Henry, A Goulding, AM Grant, BE Guthrie, "High levels of childhood obesity observed among 3- to 7-year-old New Zealand Pacific children is a public health concern," *The Journal of Nutrition* 133 (November 2003): .

¹¹ R. Sturm, "Childhood Obesity - what we can learn from existing data on societal trends, part 1," *Preventing Chronic Disease* 2, no. 1 (January 2005): .

Interactions with natural environments have been shown to have beneficial effects on mental and physical health and on overall quality of life. Originally coined by Edward O. Wilson in 1984, “biophilia” is a term used to describe humans’ natural affinity for other living things.^{12,13} This concept has been expanded to include all aspects of nature and natural settings, and the benefits reaped from spending time outside seem to apply to people of all ages. For example, children are naturally more likely to be involved in active play when they are outdoors,^{14,15} and both children and adults experience feelings of restoration, improved self-esteem and reduced anxiety when exposed to the outdoors.^{16,17} Somewhat tragically, time spent outdoors in natural settings is diminishing, to the point that it may be impacting our mental and physical health and well-being, including exacerbating unwanted weight gain. So serious is this population-wide withdrawal from nature that Richard Louv calls it “nature-deficit disorder.”^{18,19} Hectic, overscheduled lives, low socioeconomic status, urban and suburban living, the rise in oil prices and the escalation of electronic media for entertainment are all thought to contribute to the problem. The notion that people are spending less time outdoors is supported by data indicating

¹² EO Wilson, *Biophilia* (Cambridge: Harvard University Press, 1984).

¹³ H. Frumkin and R Louv, "The Powerful Link between Conserving Land and Preserving Health," *Land Trust Alliance*, 2007, <http://www.cnaturenet.org/resourcestools/FrumkinLouv.pdf>. (accessed February 15, 2008).

¹⁴ J. Nelson, "Combating Nature Deficit Disorder in Winter," *Green Living Online*, January 29, 2008, 2008, <http://greenlivingonline.com/Family/combating-nature-deficit-disorder-in-winter/> (accessed February 1, 2008).

¹⁵ H. Frumkin and R Louv, "The Powerful Link between Conserving Land and Preserving Health," *Land Trust Alliance*, 2007, <http://www.cnaturenet.org/resourcestools/FrumkinLouv.pdf>. (accessed February 15, 2008).

¹⁶ CA Readdick and GR Schaller, "Summer camp and self-esteem of school-age inner-city children," *Perceptual and Motor Skills* 101, no. 1 (2005): .

¹⁷ H. Frumkin and R Louv, "The Powerful Link between Conserving Land and Preserving Health," *Land Trust Alliance*, 2007, <http://www.cnaturenet.org/resourcestools/FrumkinLouv.pdf>. (accessed February 15, 2008).

¹⁸ P. Fimrite, "Children Detach from Natural World as They Explore the Virtual One," *Commondreams.org Newscenter*, October 22, 2007, <http://www.commondreams.org/archive/2007/10/22/4739/> (accessed February 15, 2008).

¹⁹ D. McCafferty, "New Research Focuses on Raising Healthier Kids," *Usaweekend.com*, November 18, 2007, http://www.usaweekend.com/07_issues/071118/071118healthy-kids-report.html. (accessed February 15, 2008).

that per capita visits to U.S. national parks have fallen steadily for almost two decades.²⁰ Reflecting on the critical importance of contact with nature to the human condition, E. O. Wilson writes, “What...will happen to the human psyche when such a defining part of the human evolutionary experience is diminished or erased?”²¹ One physical manifestation of the impact on our collective psyche may be overweight, obesity, and their cohort of related diseases.

An unfortunate and related phenomenon has occurred parallel to the diminished human connection with nature, and that is the increasing disconnect between nature and the food we eat. Some of the same offenders rear their ugly heads, too: lack of money, lack of time, availability, the media, and low socioeconomic status, as to reasons why highly processed, energy-dense, nutrient-poor foods make up so much of our diets today. However, important additions to the list of perpetrators in this context include political and economic factors and globalization. Subsidized agriculture has supported the overproduction of the main ingredients used in processed foods (fats and sweeteners) since the 1970’s, driving prices of these foods lower. Notably, the more food is processed, the less it resembles a natural plant or animal. At the same time, prices of crops such as fruits and vegetables, which are not subsidized (but are actually much closer to their natural state), have risen dramatically. It is no wonder that people, especially those with limited access and resources, buy the cheapest, most abundant calories available to them: processed foods. Michael Pollan writes eloquently in his book, *The Omnivore’s Dilemma*, about how the current farm policy system encourages overproduction and overconsumption of cheap, processed, far-from-nature food calories, and that the time frame

²⁰ ORW Pergams and PA Zaradic, "Is love of nature in the US becoming love of electronic media? 16-year downtrend in national park visits explained by watching movies, playing video games, internet use, and oil prices," *Journal of Environmental Management* 80 (2006): .

²¹ Wilson EO, "Part 6, Chapter 17 - Biophilia and the Conservation Ethic," in *Evolutionary Perspectives on Environmental Problems*, ed. Penn DJ and I Mysterud (Edison, NJ: Aldine Transaction, 2005), 252.

coincidentally coincides with the progressive rise in overweight and obesity in the United States.²²

At the same time we are subconsciously being pushed to eat more and more unhealthy food at home, globalization is having the same effect on populations around the world.²³ Policies of trade, foreign direct investment and advertising have created an environment in which “dietary convergence” and “dietary adaptation” occur simultaneously. Both are phenomena associated with a tangible “nutrition transition” in developing countries, away from a varied diet of foods prepared at home and toward one dominated by a narrow range of staples processed into foods high in salt, fat and sugar, purchased and/or eaten outside the home, according to Hawkes.²⁴ In other words, as countries become more integrated into the global market economy, their populations’ diets become more detached from nature, more obesogenic – more like those in the U.S. and other developed countries. An interesting trend emerges as countries actually progress through stages of becoming developed. Initially, individuals with high socioeconomic status field the brunt of the adverse health impacts. This is due to the fact that processed foods are initially more expensive in developing countries and are items that only the well-to-do can afford.²⁵ As a country transitions through the process of development, the health toll of consuming a diet high in processed foods and calories is transferred gradually and eventually to those of lower socioeconomic status.²⁶ In part this is due to processed foods becoming cheaper

²² Michael Pollan, *The Omnivore's Dilemma: A Natural History of Four Meals* (New York: The Penguin Press, 2006).

²³ NJ Rigby, S Kumanyika, WP James, "Confronting the Epidemic: The Need for Global Solutions," *Journal of Public Health Policy* 25, no. 3-4 (2004): .

²⁴ C. Hawkes, "Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases," *Globalization and Health* 2, no. 4 (March 2006): .

²⁵ S. Kim, M Symons, BM Popkin, "Contrasting socioeconomic profiles related to healthier lifestyles in China and the United States," *American Journal of Epidemiology* 159, no. 2 (2004): .

²⁶ S. Kim, M Symons, BM Popkin, "Contrasting socioeconomic profiles related to healthier lifestyles in China and the United States," *American Journal of Epidemiology* 159, no. 2 (2004): .

and more available to the population at large and in part to the generally higher education levels of those with higher socioeconomic status, who have the means to implement what they know about nutrition and lifestyle choices. In addition, changes in physical activity patterns coincide with dietary changes with predictable effects on health. At first, only the wealthy can “afford” not to be physically active, but as development continues and the poor have easier access to food (mostly the highly processed variety, which has become cheaper), they tend to become more sedentary.²⁷

In the U.S., which has been part of the industrial, developed world for many decades, the health disparities between those with relatively high levels of income and education compared to those with relatively low levels of income and education have been documented with the expected demographics based on the above discussion. As income and education decrease, dietary diversity decreases, as does consumption of fruits and vegetables. At the same time, obesity increases. The opposite is the case for individuals with higher socioeconomic status. The trend in disparity among socioeconomic classes has been consistent for thirty years (although it should also be noted that obesity has increased dramatically in the United States population as a whole over that same period of time).²⁸

Fresh, wholesome food is important for everyone, as is contact with nature, but wholesome foods and experiences in natural settings may be more difficult to come by for those in our population who are suffering most from nature-deficit disorder, the effects of obesity, and the consumption of mostly processed foods: the poor. With fuel prices continuing to rise, it may

²⁷ S. Kim, M Symons, BM Popkin, "Contrasting socioeconomic profiles related to healthier lifestyles in China and the United States," *American Journal of Epidemiology* 159, no. 2 (2004): .

²⁸ AK Kant, BI Graubard, "Secular trends in the association of socio-economic position with self-reported dietary attributes and biomarkers in the US population: National Health and Nutrition Examination Survey (NHANES) 1971-1975 to NHANES 1999-2002," *Public Health Nutrition* 10, no. 2 (2007): .

become increasingly difficult for people with limited resources, especially city-dwellers with no nearby access even to local parks, to visit natural areas, just as it is and will continue to be more difficult for them to have access to affordable, fresh, whole foods.²⁹

Conclusion

Way too much of the food being consumed today is composed of only a few, highly processed ingredients. These foods tend to be high in fat, caloric sweeteners, and total energy and no longer resemble anything from nature. In addition, U.S. citizens are becoming more and more detached from the natural world as they favor and spend more time engaged in various forms of electronic entertainment.^{30,31} This two-pronged separation from nature is having serious detrimental effects on the collective mental and physical health of the nation's citizens, in addition to having major destructive and counterproductive consequences on the earth's natural environments. Further, this phenomenon is spreading to other regions of the planet and is having similar effects on people and the environment worldwide as globalization ensues. It is evident that in order to get both our people and our food supply reconnected with nature, an integrated, multifaceted approach is necessary.

Government farm policy needs to be gradually but radically overhauled so that agricultural production and consumer utilization of a varied diet that includes produce, whole grains and unadulterated food is encouraged and promoted. This needs to happen in all parts of

²⁹ ORW Pergams, PA Zaradic, "Is love of nature in the US becoming love of electronic media? 16-year downtrend in national park visits explained by watching movies, playing video games, internet use, and oil prices," *Journal of Environmental Management* 80 (2006): .

³⁰ ORW Pergams, PA Zaradic, "Is love of nature in the US becoming love of electronic media? 16-year downtrend in national park visits explained by watching movies, playing video games, internet use, and oil prices," *Journal of Environmental Management* 80 (2006): .

³¹ P. Fimrite, "Children Detach from Natural World as They Explore the Virtual One," *Commdreams.org Newscenter*, October 22, 2007, <http://commdreams.org/archive/2007/10/22/4739/>.

the country so that crops appropriate for various climates can be grown and consumed regionally if not locally. A variety of foods, including produce and whole grain foods, needs to be accessible and affordable for all people. This could partially be accomplished through incentives offered through government assistance programs. For example, a dollar's worth of Food Stamps could be allowed to buy more produce than potato chips.

Funding should be provided for the preservation of existing natural areas, and additional funding should be available for the development of new green spaces, gardens and natural play and exploration areas for children. Importantly, the opportunity to visit natural settings should be made available to all citizens, regardless of income or location. The state of New Mexico has taken the lead in this regard, providing funding for the No Child Left Inside initiative. Together with the New Mexico Public Education Department, New Mexico State Parks is overseeing the implementation of an Outdoor Classroom program that provides the opportunity for many of the state's elementary grade students to have hands-on outdoor experiences. In addition, New Mexico funds a Kids 'N Parks program through contributions from voluntary deductions from state income tax refunds.³² In another bold (and controversial) move in that same state, an alliance led by the Rio Grande chapter of the Sierra Club is promoting legislation to impose a 1% tax on various electronic media and equipment. The tax simultaneously is intended to discourage the purchase of electronic entertainment (and the sedentary lifestyle that these devices promote), while subsidizing a No Child Left Inside fund.³³

³² E. Asmus-Otero, "State Parks Announces Major Thrust On Outdoor Classroom Initiative In NM," *New Mexico Energy, Minerals And Natural Resources Department, New Mexico State Parks Division*, April 24, 2007, <http://www.emnrd.state.nm.us/PRD/OutdoorEdLasCruces.htm>. (accessed February 22, 2008).

³³ SM Bryan, "Groups Push for Taxing TV's, Video Games as Part of 'No Child Left Inside' Initiative," *Abqjournal.com*, January 30, 2008, <http://www.abqjournal.com/news/state/apleftbehind01-30-08.htm>. (accessed February 22, 2008).

Education is clearly a key component to the potential success of these proposals, but it is not sufficient in and of itself. For example, if you are too poor and/or the healthy goods you want to buy are not available to you, then all the education in the world about healthy eating becomes a moot point. Along with education also comes a greater degree of consumer responsibility. Assuming the goods and funds are available, an educated consumer must be accountable for making appropriate choices. One obvious place to start is in the schools, at the earliest levels of education. It is not enough to merely talk to children (or adults) about making good choices. To fully implement the “reconnection with nature” concept, more widespread and conscientious use of hands-on learning tools such as school gardens, nature outings, and community outreach projects can be put into action. Innovative programs providing local and organic foods in school lunches have been highly successful, and plans and funds have been developed to help school districts implement such programs.^{34,35}

At home and abroad, conscious efforts must be made to mend the rift between our food supply and nature and to concurrently bridge our communal personal gap with nature. In doing so, the population as a whole will be more active, will eat more healthfully and experience a more vibrant lifestyle in general, and the environment will benefit to boot. In today’s time-stressed and harried world, where monetary resources are an increasing concern for many, it is easy to opt for abundance, convenience and low prices, and it is easy to fill up leisure time with “screen time.” However, there is a high price to be paid for this lifestyle in terms of our health

³⁴ K. Sanger, L Zenz, "Farm-to-cafeteria Connections: Marketing Opportunities for Small Farms in Washington State," *Washington State Department Of Agriculture, Small Farm & Direct Marketing Program*, January, 2004, <http://agr.wa.gov/Marketing/SmallFarm/102-FarmToCafeteriaConnections-Web.pdf>. (accessed February 22, 2008).

³⁵ P. Flock, C Petra, V Ruddy, J Peterangelo, "Revitalizing the School Lunch Program," *Washington State Department Of Agriculture, Small Farm & Direct Marketing Program*, April, 2003, <http://agr.wa.gov/Marketing/SmallFarm/SaladBarOrganicChoices.pdf>. (accessed February 22, 2008).

and the health of our planet. A reconnection with nature might be a valid first step if there is to be “any real hope of arresting the public health catastrophe unfolding throughout the world.”³⁶

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³⁶ S Kumanyika Rigby NJ, WP James, "Corrigendum: Confronting the epidemic: the need for global solutions," *Journal of Public Health Policy* 27 (2006): .

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