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EXCHANGE: OBESITY POLICY CHOICES

Obesity and the Struggle Within Ourselves

M. GREGG BLOCHE*

As I loaded my squash onto the supermarket checkout counter, four fudgy brownies vied for my attention. They looked longingly at me from the cover of *Family Circle*, distracting me for a moment from the models in stretch jeans on magazine racks on either side. The busy cover promised that these “One-Bowl Brownies” were “fast and easy”—and that the “Super Diet” in the same issue “fights fat and boosts energy.” Below the “Super Diet” was another banner, “Best Burgers,” followed by “What Your Husband Wants You to Know about Sex.”¹ As I reached for my wallet to pay for my squash—and for my chocolate biscotti—I began worrying about whether I’d have time to go for a run.

The editors of checkout counter magazines have a preternatural understanding of our inner struggles over food, body image, and dietary self-restraint. They sell their product by allying themselves with both our cravings and our will to resist them. Like global arms merchants, they profit from the struggle. That struggle is intensifying. There’s more sex now than ever in American culture, but gluttony is gaining on lust, with self-restraint a distant third. The numbers are widely known, and I’ll only briefly touch upon them here. By 2002, 65 percent of Americans were overweight, up from 56 percent about a decade before.² And the fattest among us are getting fatter: obesity, as currently defined, rose from 23 to 31 percent in the same period.³ Projecting forward to 2008 yields numbers that astonish, including an obesity rate of 39 percent, based on the 1990s trend.⁴ It is an epidemic as that term is commonly defined.⁵

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1. FAMILY CIRCLE, April 1, 2005 (cover).

2. 1999–2002 National Health and Nutrition Examination Survey, available at www.cdc.gov/nchs/products/pubs/pubd/hestats/obese/obse99.htm. Overweight status, by convention, is defined in terms of the Body Mass Index (BMI): BMI = weight (in kilograms)/height (in meters)². People with BMIs > 25 are overweight; those with BMIs > 30 are obese.

3. *Id.*

4. James O. Hill, et al., *Obesity and the Environment: Where Do We Go from Here?*, 299 SCIENCE 853 (2003). The worldwide numbers are, if anything, more remarkable. Nearly half a billion people are overweight or obese, and obesity rates in European nations range from 10 to 40 percent. Stephan Rossner, *Obesity: The Disease of the Twenty-First Century*, 26 INT’L J. OBESITY SUPP. 4, S2 (2002).

5. See, e.g., STEDMAN’S MEDICAL DICTIONARY 470 (23rd ed. 1976) (defining “epidemic” as either “a disease attacking many people in a community simultaneously; distinguished from endemic, since the disease is not continuously present, but has been introduced from outside,” or “the extensive prevalence in a community of a disease brought from without, or a temporary increase in number of cases of an

Our growing national girth may, to some degree, reflect a public health success. Over the past few decades, smoking rates have dropped dramatically, a trend with favorable implications for the incidence of cardiovascular disease and stroke, many cancers, and other illnesses. But as most smokers who quit know too well, suppressing cravings for cigarettes stokes cravings for food. Some of our extra pounds may be the price of antismoking success. But this price is high in health terms. Weighing too much has been linked to many of the same diseases as smoking, though there is controversy over which is more dangerous. Heart disease and stroke,⁶ Type II diabetes,⁷ various cancers,⁸ and some mental health problems are more prevalent among the overweight and obese. Some warn that the rising incidence of obesity in America could result in shorter life spans for today's children, compared to their parents, as these illnesses strike more people at younger ages.⁹ Already, average adult life expectancy in the U.S. may be four to nine months shorter than it would be if no Americans were obese.¹⁰

Recent studies have stirred debate over how many Americans die prematurely each year because they are overweight or obese. A 2004 study by the Centers for Disease Control and Prevention set the stage for this controversy by fixing this toll at approximately 400,000, a figure the CDC later adjusted downward to 320,000, after concluding that researchers had made a statistical error.¹¹ This year, another study by CDC researchers estimated excess deaths related to obesity (BMI > 30¹²) at 112,000 per year and found that overweight Americans (BMI > 25 and < 30) have a *lower* annual death rate than do people in the normal weight range.¹³ Different approaches to elimination of confounding

endemic disease"). Conventional medical terminology notwithstanding, however, some opponents of government intervention object to the use of term. See, e.g., Richard Epstein, *What (Not) To Do About Obesity: A Moderate Aristotelian Answer*, 93 GEO. L.J. 1361, 1368 (2005) ("The constant use of the term 'epidemic' does more to inflame than inform. Whatever the problems with obesity, it is not a communicable disease, with the fear and pandemonium that real epidemics let loose in their wake.").

6. Robert O. Bonow & Robert H. Eckel, *Diet, Obesity, and Cardiovascular Risk*, 348 NEW ENG. J. MED. 2057 (2003).

7. Ranjana Sinha et al., *Prevalence of Impaired Glucose Tolerance Among Children and Adolescents with Marked Obesity*, 346 NEW ENG. J. MED. 802 (2002).

8. Eugenia E. Calle et al., *Overweight, Obesity, and Mortality from Cancer in a Prospectively Studied Cohort of U.S. Adults*, 348 NEW ENG. J. MED. 1625 (2003) (reporting associations between increased weight and higher rates of death from non-Hodgkin's lymphoma, multiple myeloma, and cancers of the esophagus, colon, rectum, liver, gallbladder, pancreas, kidney, stomach, prostate, breast, uterus, cervix, and ovary).

9. Samuel H. Preston, *Deadweight? The Influence of Obesity on Longevity*, 352 NEW ENG. J. MED. 1135 (2005).

10. *Id.*

11. Ali H. Mokdad et al., *Actual Causes of Death in the United States, 2000*, 291 JAMA 238 (2004) (reporting the results of the original CDC study); Ali H. Mokdad et al., *Correction: Actual Causes of Death in the United States, 2000*, 293 JAMA 293 (2005) (reporting the corrected numbers).

12. See *supra* note 2.

13. Katherine M. Flegal, *Excess Deaths Associated With Underweight, Overweight, and Obesity*, 293 JAMA 1861 (2005). This study found approximately 85,000 fewer deaths in the overweight population than would have occurred had this population been in the normal weight range, as defined

influences—smoking, substance abuse, illness, socio-economic status, and other demographic factors—account for much of this variation.¹⁴ Some argue that recent improvements in the treatment of cardiovascular disease have made excess weight less dangerous; others warn that current measures of mortality understate the long-term impact of obesity's rising prevalence.

Even if the lowest figure is the best estimate of premature, obesity-related deaths, obesity is an urgent public health problem. The CDC team's 112,000 excess deaths per year is more than twice the death rate from car accidents or from suicide and homicide combined. It exceeds deaths from diabetes mellitus and is more than six times the number of annual HIV-related deaths.¹⁵ Moreover, it represents a risk that varies by race, sex, and ethnicity: a CDC survey conducted between 1999 and 2002 put the prevalence of obesity among adults at 28 percent for white men, 33 percent for white women, 37 percent for Mexican women, and a stunning 49 percent for African-American women.¹⁶

Why Americans are getting fatter and what should be done about it have become matters of bitter controversy. The lines of conflict reflect our country's larger divides over the proper scope of personal responsibility, corporate accountability, and government's role. Some, including Richard Epstein in this issue,¹⁷ treat people's eating (and its consequences) as entirely their own responsibility. They reject regulatory measures, product liability, tax incentives, and other subsidies; even public health advocacy aimed at encouraging healthy eating and exercise constitutes state overreach, in their view. Others point to social and cultural causes¹⁸ or to corporate miscreants.¹⁹ They urge, variously, tort liability for sellers and servers of hazardous foods, disclosure rules and other constraints on food advertising, taxes on foods with empty calories and risky fats, and public subsidies to promote exercise and safer eating. A high-stakes competition is underway over how to frame the question of obesity: is it, at

by the researchers (body mass index between 18.5 and 25). The study linked being underweight (body mass index less than 18.5) to 34,000 excess deaths (compared to deaths among people in the normal weight range), even after controlling for illnesses that cause weight loss.

14. David H. Mark, *Deaths Attributable to Obesity*, 293 JAMA 1918 (2005).

15. The comparisons above are based on CDC estimates of annual mortality, from CDC, HEALTH, UNITED STATES, 2004, WITH CHARTBOOK ON TRENDS IN THE HEALTH OF AMERICANS 146 (2004).

16. *Id.* at 242. By contrast with the above-noted prevalence figures for women, the equivalent numbers for men varied minimally, from 26 percent for Mexican men to 28 percent for both African-American and white men. *Id.*

17. Epstein, *supra* note 5.

18. E.g., Shin-Yi Chou et al., *An Economic Analysis of Adult Obesity: Results from the Behavioral Risk Factor Surveillance System*, 23 J. HEALTH ECON. 565 (2004); Hill, Wyatt, Reed, & Peters, *supra* note 4; Frank B. Hu et al., *Television Watching and Other Sedentary Behaviors in Relation to Risk of Obesity and Type 2 Diabetes Mellitus in Women*, 289 JAMA 1785 (2003); Lisa Young & Marion Nestle, *The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic*, 92 AM. J. PUB. HEALTH 246 (2002); Henry J. Kaiser Foundation, *Issue Brief: The Role of Media in Childhood Obesity*, Feb. 2004.

19. KELLY D. BROWNELL, FOOD FIGHT: THE INSIDE STORY OF THE FOOD INDUSTRY, AMERICA'S OBESITY CRISIS, AND WHAT WE CAN DO ABOUT IT (2004).

bottom, a private matter or a systemic problem,²⁰ deserving of a legal and public policy response?

I will argue in this Essay that we ought to treat our eating, exercise habits, and girth as personal matters, for the most part, but that law can and should make a contribution, as an ally of our longer-term will against our immediate cravings. Law can be our ally in this fashion without command-and-control intrusion into our private lives. Such intrusion is at odds with our core beliefs and unlikely to produce public health success. It is more likely to provoke popular backlash—one reason why some who stand to gain from our unhealthy dining choices try to cast government efforts to inform these choices as heavy-handed interference in our lives. Public policy and law should support our beleaguered self-restraint in the face of potent social cues and pressured life circumstances that make us more responsive to our short-term, unreflective intentions. Policymakers should also look for opportunities to set our cravings against each other. From a public health perspective, for example, safe sex is better than reckless eating. To the extent that erotic feelings suppress snacking or inspires regular exercise, they are a potential ally in campaigns against overeating. Through such strategies, the state can promote health without eroding its citizens' sense of freedom in the private sphere.

I shall proceed as follows. First, I will disentangle the debates over: (1) the causes of obesity (and overweight²¹) and (2) the reasons for its recent, rapid increase in incidence. A health problem's underlying causal mechanisms are typically distinct from the reasons for the problem's epidemic surge. But in the case of obesity, these two issues are often conflated. Commentators opposed to state intervention tend to argue that various proposed causal mechanisms cannot explain obesity's epidemic surge and therefore should not become foci of government action.²² Proponents of robust public intervention tend to point to a broad array of causal mechanisms, citing each as justification for action. Both approaches are misguided. The question of what might work as a remedy, in terms of both efficacy and consonance with our cultural and legal values, is distinct from the question of cause. Not all causes imply viable remedies. And, conversely, effective remedies (be they clinical or legal) need not operate via the causal pathways that explain obesity's epidemic surge.

Second, I will consider the varied causal accounts with an eye toward remedies that might yield health benefits (at reasonable cost) and fit with enduring American legal and cultural norms. I shall reject "black box" accounts of personal choice that treat consumers' current eating habits as sovereign

20. Regina G. Lawrence, *Framing Obesity: The Evolution of News Discourse on a Public Health Issue*, 9 HARV. INT'L J. PRESS & POL. 56 (2004); Rogan Kersh & James Morone, *The Politics of Obesity: Seven Steps to Government Action*, 21 HEALTH AFF. 142 (2002).

21. In the subsequent discussion, I use the term "obesity," for simplicity's sake, to refer to the combined problems of obesity (Body Mass Index (BMI) > 30 as defined by current medical consensus) and overweight (BMI > 25 but < 30, as defined by medical consensus).

22. E.g., Epstein, *supra* note 5.

expressions of preference. But I will eschew government measures that would override people's expressed preferences and thus be experienced by Americans as oppressive. Instead, I will urge efforts to encourage healthier eating and exercise choices by better informing consumers and sharpening their awareness of risks and benefits. Public health activism along these lines can succeed by forging alliances with our longer-term selves against our immediate cravings. It will fail (and bring about a backlash) if it is widely seen as an attempt to foreclose dietary choices that large numbers of Americans continue to make.

I. CAUSES

Myriad influences have been put forward as causes for obesity. Genetic predispositions, declining food prices, rising incomes, more sedentary employment, exurban sprawl (supported by public subsidies for highway construction), higher cigarette prices (and diminished rates of smoking), time spent watching TV and playing video games, bottle-feeding of babies, the fast food industry (and its advertising), and larger portion sizes are among the factors variously cited.²³ A growing body of cross-sectional studies²⁴ documents correlations between these influences and the incidence of obesity. Complex webs of causality have been hypothesized, involving food industry marketing strategies and preparation methods, agricultural prices, incentives and opportunities to exercise, labor market shifts, and changing uses of leisure time. But the timing of most of these factors fits poorly with the surge in Americans' weight since the mid-1980s. Genetics cannot explain such rapid change, absent newly emergent environmental influences that activate biological predispositions. And the cultural and economic trends on the above list date back to the early and mid 20th century, decades before the emergence of the current epidemic. None involve sudden shifts well-timed to account for Americans' recent, rapid weight gain. This has led some to dismiss the relevance of these factors as either explanations for the obesity epidemic or potential pathways for remedial action.

A. ROUNDING UP THE USUAL SUSPECTS

What accounts for our recent, rapid weight gain, and does the answer to this question hold clues about how to reverse this trend? It is, perhaps, a sign of our country's cultural and ideological polarization that many conservatives ascribe this trend to the rapid movement of women into the workplace, a development

23. See sources cited *supra* note 18; Inas Rashad & Michael Grossman, *The Economics of Obesity*, THE PUBLIC INTEREST, 104, Summer 2004; Eileen Salinsky & Wakina Scott, *National Health Policy Forum Background Paper: Obesity in America: A Growing Threat 5-7*, July 11, 2003 (summarizing oft-cited causes).

24. These cross-sectional studies compare the incidence of obesity (and/or overweight) in different subpopulations exposed to different influences (e.g., hours per day watching TV, sedentary employment, living in cities versus suburbs) during the same time frame. They thus cannot track variations in obesity over time.

that roughly coincides with obesity's emergence as an epidemic.²⁵ This story is, in essence, that time at work means time not spent in the kitchen, cooking healthy meals from wholesome ingredients. Women who work, the story goes, are more likely than their stay-at-home counterparts to rely on restaurant and other prepared foods with high caloric density, and they are less able to closely monitor their children's diets.²⁶ Fatter families and, especially, fatter children are the predictable result.

The available evidence weighs heavily against this story. Analyzing demographic groups defined by education level and marital status, David Cutler and his colleagues have found that the shift toward more households with working women accounts for, at most, 10 percent of the rise in obesity in the U.S. between 1971–75 and 1988–94.²⁷ Looking at comparative international data from developed countries, they found no correlation between female labor force participation rates and incidence of obesity.²⁸ Some who allege a connection between obesity and movement of women into the workplace cite an analysis by Patricia Anderson and her colleagues²⁹ as proof that growth in hours worked by mothers explains up to a third of the increase in childhood obesity.³⁰ But the Anderson analysis found a link between childhood obesity and hours worked only for women in the top quartile of family income. And the connection was weak and uncertain: increased hours worked (on average) between the mid-1970s and mid-1990s explained between 12 and 35 percent of the rise in childhood obesity within families in the top income quartile, Anderson and her colleagues found.³¹ In the other quartiles there was no such connection.

Moreover, the data suggest that, at least for upper-income families, the movement of women into the workforce may actually *reduce* the incidence of childhood obesity by raising family income. Many top-quartile families with dual incomes would drop into lower quartiles were the woman of the house to drop out of the work force or substantially reduce her hours. The Anderson study found lower rates of childhood obesity in the highest income quartile than in any of the others. Its 10.6 percent incidence of childhood obesity in top-quartile families with mothers who work more than thirty-five hours per week compares favorably with a 12.1 percent incidence in third-quartile families with

25. *E.g.*, Epstein, *supra* note 5, at 1371 (“One key factor is surely the increased participation of women in the labor force, which drives down the amount of home cooking, and makes it likely that mothers will do less to monitor the diets of their children. This could account in part for the increasing levels of childhood obesity that have been reported in the past few decades.”).

26. *Id.*; Rashad & Grossman, *supra* note 23, at 108.

27. David M Cutler et al., *Why Have Americans Become More Obese?*, 17 J. ECON. PERSP. 93, 97 (2003).

28. *Id.* (analyzing data from Organization for Economic Cooperation and Development (OECD) member states).

29. Patricia M. Anderson et al., *Economic Perspectives on Childhood Obesity*, ECON. PERSP., 3rd Quarter, 2003, at 30.

30. Rashad & Grossman, *supra* note 23, at 108 (arguing that “the rise in obesity seems to have been an unintended consequence of encouraging women to become more active in the workforce”).

31. Anderson et al., *supra* note 29, at 31, 41–43.

stay-at-home mothers and an 11.0 incidence for third-quartile families with mothers employed for fewer than thirty-five hours per week. Thus the entry into the workforce of a third-quartile stay-at-home mother may lower the likelihood her children will be obese. Beyond this, the proposition that working women are responsible for rising obesity because of their reliance on restaurant and other convenience foods disregards the availability of *healthy* prepared foods, low in caloric density. Working mothers (and fathers) can resort to convenience meals without sacrificing good nutrition; blaming the movement of women into the workplace is thus at odds with conservatives' affinity for causal accounts emphasizing broad personal responsibility.

Efforts by some to blame an array of corporate villains for the nation's rapid weight gain are likewise ill-supported by evidence. As noted earlier, the timing of this weight gain does not coincide with rising exposure to television and other mass advertising. Children's time spent watching TV rose rapidly in the early decades of television broadcasting³² but fell between the 1970s and 1990s.³³ Evidence that greater intensity, frequency, or effectiveness of food advertising more than offset this drop-off, as some argue, is equivocal.³⁴ Moreover, television viewing by both children and adults has shifted over the past few decades from broadcast programming toward cable channels with fewer or no overt advertisements.³⁵ And television content puts overeating in a mostly negative light. Overweight characters are underrepresented and typically nonrecurring in prime-time and sitcom programming, and they tend to have fewer friends and less sex than their leaner counterparts.³⁶

As for the other main set of corporate culprits—the prepared food industry—the evidence is mixed. Although the availability of fast food and other convenience meals preceded the current epidemic by decades, sales of convenience foods—and population-adjusted numbers of both fast food and full-service restaurants³⁷—have soared since the 1970s. One can read this either as proof of the industry's pernicious role (taken up rather tardily) or as a rational consumer and producer response to the rising value of time formerly devoted to preparing meals at home.³⁸ Likewise, the increase in portion sizes since the 1970s³⁹ can

32. TV broadcasting began in the late 1940s, but televisions did not become commonplace in American households until the mid-1950s.

33. See Todd J. Zywicki, *Obesity and Advertising Policy* (unpublished paper on file with the author) (arguing against aggressive regulation of food advertising to children, in part based on evidence weighing against a strong connection between children's exposure to such advertising and the rising incidence of obesity).

34. *Id.*

35. There is the separate question of product placements—promotion of products through their use as props or their inclusion in program storylines. I know of no studies comparing the frequencies of food-related product placements over time.

36. Kaiser Foundation, *Issue Brief: The Role of Media*, *supra* note 18, at 7.

37. Chou et al., *supra* note 18, at 577–84.

38. *Id.* at 584.

39. Young & Nestle, *supra* note 18.

be seen in malevolent terms⁴⁰ or as an understandable economic response to the declining cost of food relative to packaging.

More problematic, from a perspective that defers to people's market choices as evidence of their preferences, is the possibility that some convenience food sellers "hook" consumers with high-calorie ingredients that eaters don't expect. In *Pelman v. McDonalds*, for example, the plaintiffs alleged that McDonalds' Chicken McNuggets contain risky fats and other substances virtually never found in fried chicken.⁴¹ A product of this sort is, in the language of the Restatement (Second) of Torts, "dangerous to an extent beyond that which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics."⁴² It merits liability, if causation-in-fact and other prerequisites are met, because consumers do not knowingly accept its risks.

On the other hand, a key piece of evidence casts cold water on the claim that rising calorie consumption at mealtime is driving Americans' weight gain. As Cutler and his colleagues have noted, an ongoing U.S. Department of Agriculture survey of Americans' food intake found minimal change in daily mealtime calories over a nearly twenty year period, from the late 1970s to the mid-1990s.⁴³ Estimated calorie consumption at dinner dropped for both women and men.⁴⁴ There were slight increases in breakfast and lunchtime calorie intake: overall, daily mealtime calories were down by seventeen for women and up by twenty-seven for men.⁴⁵ By contrast, calorie intake in the form of *snacks* rose dramatically, from 186 to 346 (an increase of 160, or 86 percent) for women and from 261 to 501 (an increase of 241, or 92 percent) for men.⁴⁶ These findings make it implausible to conclude that larger mealtime portion sizes or fattening convenience meals are behind the obesity epidemic. The remarkable statistics on snacking, though, hint at a likely explanation, to which I will presently turn.

Before doing so, I will briefly address the oft-asserted causal tie between sedentary living and the soaring incidence of obesity. The connection seems obvious. A daily surplus intake of a few hundred calories translates into a weight gain of twenty pounds per year, a gain preventable through moderate

40. *SUPER SIZE ME* (Spurlock & The Con 2004).

41. *Pelman v. McDonalds' Corp.*, 237 F. Supp. 2d 512, 535 (S.D.N.Y. 2003) ("Chicken McNuggets, rather than being merely chicken fried in a pan, are a McFrankenstein creation of various elements not utilized by the home cook.").

42. RESTATEMENT (SECOND) OF TORTS § 402A cmt. 1 (1979).

43. Cutler et al., *supra* note 27, at 101 (reporting data from the USDA's Continuing Survey of Food Intake, 1977-1978 and 1994-1996). A weakness of this study is that it is based on self-reporting of food intake by survey participants. Given the potentially embarrassing nature of the subject matter, underreporting is a high risk, but most or all of the effects of underreporting are likely to cancel each other out when different survey periods are compared.

44. Dinnertime calorie intake dropped by 74 for women and 59 for men. *Id.*

45. *Id.*

46. *Id.*

exercise, such as walking a few miles a day. But the trend toward more sedentary living predates the current obesity epidemic. Americans have been leaving high calorie-consuming jobs (e.g., farm and factory work) since at least the start of the last century; this exit rate has not accelerated in recent decades.⁴⁷ During the 20th century, Americans abandoned walking and public transit in favor of driving their cars to work, but this shift was nearly complete by 1980, before the rapid rise in obesity began.⁴⁸ Likewise, energy expenditure away from the workplace appears to have declined more sharply between 1965 and 1975 than in the ensuing twenty years.⁴⁹ Higher calorie expenditures might well abate the obesity epidemic, but movement toward more sedentary living does not explain its origins.

B. TECHNOLOGY, TEMPTATION, AND THE STRUGGLE WITHIN OURSELVES

What, then, accounts for the recent surge in obesity? The rise in snacking points the way toward an answer. Snack calories constitute the main disruption in the post-1980 food energy balance. Their increase coincides with the obesity epidemic and fits with an oft-noted aspect of food economics—the falling cost of transforming the yield from farms, fields, and waters into appealing eating.⁵⁰ American food spending is shrinking as a proportion of GDP, but this is not the main storyline. The more important development is the rapid advance of production technology, which has made a vast range of tasty foods (healthy or otherwise) available at low prices, with little home preparation time needed.⁵¹ Conventional welfare economics predicts several consequences, including reduced time spent in the kitchen preparing meals or snacks,⁵² higher calorie intake, and greater variety and frequency of food consumption (since easy availability of convenience foods means lower fixed costs for home food

47. Cutler and his colleagues observe that from 1910 to 1970, the fraction of Americans employed in “highly active” jobs fell from 68 to 49 percent. They claim that the continuing decrease over the next 20 years was more modest—down to 45 percent in 1980 and 42 percent in 1990. *Id.* at 103. This claim is unpersuasive on its face: these figures reflect a decline of approximately 3.2 percentage points per decade from 1910 until 1970, followed by a drop of 3.5 percentage points per decade between 1970 and 1990 (author’s calculations). But what is important is that the exit rate from “highly active” jobs did not increase appreciably in conjunction with the rapid rise in the incidence of obesity.

48. By 1980, 84 percent of working Americans drove to their place of employment, 6 percent went on foot, and 6 percent took public transit. Twenty years later, 87 percent drove, 3 percent walked, and 5 percent took public transit. *Id.* at 104 (citing U.S. Dept. of Commerce data).

49. *Id.* at 102 (citing diary studies indicating that increased time spent watching TV drove the decline in non-workplace energy expenditure between 1965 and 1975 but that smaller increases in TV viewing time over the next 20 years were roughly offset by declines in other sedentary activities and increases in more energy-demanding endeavors).

50. E.g., D. Lakdawalla & T. Philipson, *Food Prices, Nutrition, and Obesity*, AMER. ECON. REV. (forthcoming 2005); Tomas Philipson & Richard A. Posner, *The Long-Run Growth in Obesity as a Function of Technological Change*, (Nat’l Bureau of Econ. Research, Working Paper No. 7423, 1999).

51. Cutler et al., *supra* note 27, at 105–07. New home food preparation technologies, especially the microwave oven, are part of this story.

52. In effect, consumers purchase commercial food preparation services as substitutes for their own expenditure of time and effort on meal and snack preparation.

preparation).⁵³ Observed increases in snacking and snack calories consumed are consistent with these predictions.

As Cutler and his colleagues point out, welfare economics thought about the role of food production technology in reducing the eater's time cost of food preparation yields other testable predictions about eating behavior.⁵⁴ Foods that derive higher proportions of their value-added from commercial preparation activity should constitute larger proportions of our calorie intake, while items (e.g., fresh fruits and vegetables) with lower value-added from production processes should trend downward in our diets. Social groups that have achieved the highest reductions in home food preparation time should show the greatest increases in weight, and the countries that rely most heavily on advanced food production technology should show the highest levels of obesity. All of these predictions have panned out.⁵⁵

Yet this welfare economics account has a glaring deficiency. Were it the primary explanation for rising obesity, we would expect to see weight gain widely distributed among Americans. But a remarkable feature of our national weight gain over the past few decades is that it is concentrated among a minority of people—those of us well to the right side of the bell curve of BMI distribution. Between 1971–74 and 1999–2000, the median adult BMI rose from 24.6 to 26.8, an 8.9 percent change, but BMI at the 95th percentile of adult weight distribution rose from 33.9 to 39.6, a 16.8 percent jump.⁵⁶ Inspection of the curves of BMI distribution for these two periods, almost thirty years apart, reveals only small BMI increases in the lower and middle ranges but larger increases toward the upper levels of the distribution. The difference between the curves is visually striking: the right tail of the 1999–2000 curve extends out much further.⁵⁷ There is plainly something that makes some of us much more vulnerable than the rest of us to the temptations associated with the shrinking time cost of food preparation. As to what this is, and what might be done about it, neoclassical welfare economics has nothing to say.

53. *Id.* at 107.

54. *Id.* at 108–12.

55. *Id.* Calorie intake from foods with low “farm value shares” (the USDA’s measure of the proportion of revenues going to farmers as opposed to other actors in the food production and distribution chain) tended to rise between 1970 and 1999, while calorie consumption from foods with high “farm value shares” trended downward. *Id.* at 108. From 1965 to 1995, meal preparation time for women in each of four groups (single, married and working, married and non-working, and elderly) dropped by 25 percent or more. During the same period, meal preparation time rose slightly for single and elderly men, jumped by more than 60 percent for married men with working wives, and more than doubled for married men with non-working wives. This sex difference in food preparation time trends correlates with a greater increase in the incidence of obesity in women than in men. *Id.* at 109–10. Likewise, among developed nations the incidence of obesity is higher in countries believed to employ more advanced commercial food production technology. *Id.* at 110–12 (employing country-specific measures of regulatory intensity—including numbers of food laws and reliance on price controls—as proxies for country-specific levels of food production technology, based on premise that regulation slows the introduction of new food production technology).

56. Anderson et al., *supra* note 29, at 34.

57. *Id.* at 34, 37.

Cutler and his collaborators recognize this problem but do not resolve it. Instead, they offer a cosmetic response, one that recharacterizes the problem without illuminating its origins. Drawing upon recent welfare economics efforts to model procrastination and pursuit of immediate gratification, they postulate that people prone toward obesity engage in “hyperbolic” time discounting as opposed to “standard” exponential or linear discounting of future consequences.⁵⁸ “Hyperbolic” discounting is “nonrational,” they say,⁵⁹ in contrast to “standard” discounting, which rationally ascribes diminished present value to an outcome in proportion to this outcome’s remoteness in time. Choices based on (or, at least, consistent with) “standard” discounting deserve deference as expressions of consumer preference concerning costs and benefits, on this model, while choices based on “hyperbolic” discounting are mistakes. Yet not all of us are equally prone to such error: people differ in their propensities toward “hyperbolic” discounting in the face of short-term temptation. Those on the long right tail of the 1999–2000 BMI distribution curve are especially inclined toward it, Cutler and his collaborators hold; those in the lower and middle ranges of the curve come closer to “standard” discounting behavior.

This account is consistent with an oft-replicated research finding. When experimental subjects are asked to choose between smaller-but-sooner rewards and larger-but-later benefits, the subjects’ implicit discount rates (inferred by researchers based on the subjects’ choices) are much higher in the short term than over the long term.⁶⁰ In an illustrative study, subjects asked how much money they would require in a month, a year, and ten years to make them indifferent to the option of receiving \$15 immediately gave median responses of \$20, \$50, and \$100, respectively. These responses translate into annualized discount rates of 345 percent for the one-month delay, 120 percent for the one-year wait, and 19 percent for the ten year deferral.⁶¹ As a corollary, subjects’ choices from between two rewards delayed for different periods sometimes reverse (in favor of the nearer-term reward) when the time lag between the moment of choice and the first reward diminishes.⁶² Hyperbolic functions fit these phenomena better than do functions featuring constant discount rates.

Conduct that involves succumbing to immediate temptation while promising (to oneself or others) to exercise restraint or abstinence tomorrow is consistent with the “hyperbolic” discounting model. Gluttonous eating, risky sex, and the whole gamut of behaviors typically treated as addictive fit this bill. But the

58. Cutler et al., *supra* note 27, at 114–16. They cite work by David Laibson and Christopher Harris, setting out the idea of “hyperbolic” discounting and pointing to its explanatory power.

59. *Id.* at 115.

60. Shane Frederick et al., *Time Discounting and Time Preference: A Critical Review*, in *ADVANCES IN BEHAVIORAL ECONOMICS* 162, 172–75 (C. F. Camerer, G. Loewenstein, & M. Rabin eds., 2004).

61. *Id.* at 172–73 (citing work by Richard Thaler).

62. *Id.* at 173 (giving, as an example, a person who prefers \$110 in 31 days over \$100 in 30 days but also prefers \$100 today over \$110 tomorrow).

“hyperbolic” discounting story does not explain differences in people’s responses to short-term temptation. It takes these differences as givens—in economics lingo, it treats them as exogenous. How these differences arise, and what might be done to stiffen the resistance of those most vulnerable to temptation, is beyond this story’s reach.

Why are some of us especially prone to overeating when easy-to-prepare food is readily available? We know this about vulnerability to temptation: Not only does it differ among individuals; it varies based on the nature of the temptation, for each individual. Predispositions, conflicting goals, competing temptations, and surrounding cues render each of us selectively responsive to different sets of temptations. We don’t have overall, personal discount functions, inherited or acquired.⁶³ A fitness buff immune to the attractions of high-fat fast food may find one or another type of sex irresistible, with one or another type of partner, or in particular settings. A chocolaholic may be unresponsive to brie or buttery rolls. Psychodynamic and cognitive psychology have converged on ideas about choice that capture this sort of variation—and that fit poorly with welfare economics accounts of our comparative responsiveness to short-term temptation and longer-run aims.

Psychodynamic psychology has largely abandoned drive theories—models of the mind that postulate sustained cravings, instinctual or otherwise, and thus make it meaningful to speak of the discounted present value of future fulfillment. Contemporary psychodynamic models concede the existence of instinctual needs, but they explain our choices and actions as responses to patterns we perceive.⁶⁴ We perceive, or construct, myriad patterns (or stories about the world) based on our own preconceptions, fears, and hopes, as well as surrounding cues. These patterns or stories both open up and narrow our options: they thus direct our decisions and actions, often unconsciously.⁶⁵ Thus the choices we make depend greatly on the patterns of perception that choice situations trigger. These patterns do not line up neatly along a single axis (representing a single variable), though the immediacy or remoteness of a prospective reward can influence the patterns that are triggered. They are best studied through close scrutiny of the cues that characteristically evoke them, the systems of cultural and personal belief they incorporate, and the decisions they imply.⁶⁶

63. Absent from the research literature on time discounting is evidence on individuals’ comparative discounting behavior for different kinds of immediate and future rewards—e.g. money versus food versus sex.

64. There are many variants, far beyond my scope here: these include ego psychology, *see, e.g.*, PAUL FEDERN, *EGO PSYCHOLOGY AND THE PSYCHOSES* (Edoardo Weiss ed., 1952); self psychology, *see, e.g.*, THE SEARCH FOR SELF: SELECTED WRITINGS OF HEINZ KOHUT (Paul H. Ornstein ed., 1991); and object relations theory, *see, e.g.*, RUBIN & GERTRUDE BLANCK, *BEYOND EGO PSYCHOLOGY: DEVELOPMENTAL OBJECT RELATIONS THEORY* (1986).

65. *See generally* ROY SCHAFFER, *THE ANALYTIC ATTITUDE* (1983).

66. Such scrutiny can be either qualitative or quantitative—it can take the form of the cultural anthropologist’s or psychoanalyst’s rich description of events and meanings, or it can employ such statistical methods as quantitative content analysis of recurring hopes, fears, and preconceptions.

Cognitive psychology theories likewise emphasize the individualized patterns of perception and understanding that guide people's judgments. Such patterns, or heuristics, can operate unconsciously. Often, they enable us to adapt efficiently to difficult circumstances, but sometimes they lead us astray.⁶⁷ They may be inherited or acquired, early or later in life, and they are influenced (but not dictated) by our fears,⁶⁸ wants, and visceral needs.⁶⁹ For example, my reaching for sweet dark chocolate as I struggle to convey my thoughts in this paragraph reveals my habit of looking to its comforting and energizing flavor for support when I take on a challenging task. Whether this behavior arose from genetic predisposition, reward-based learning from chocolate-nibbling experience, or some other source, I don't know, but it has become one of my stress management tools. Understanding this about me hints at possible strategies for averting weight gain—strategies that accommodate my stress management needs while keeping my calorie intake and usage in balance.⁷⁰ The hyperbolic time discounting model's mathematical abstraction yields little or no such guidance.⁷¹

The notion that patterns of perception and understanding drive decisions and actions is consistent with findings from behavioral economics. Myriad studies in this field show that decisions depend on perceived context. People choose differently depending on how options are framed⁷² and whether prior information "anchors" their expectations.⁷³ People's preferences sometimes reverse when the same options are presented in different sequences or groupings.⁷⁴ Many other reference points for choice have been studied, named, and found to influence experimental subjects' preferences: these include the endowment effect, loss aversion, and social comparisons. Economists and behavioral psychologists have tried mightily to model these effects in quantitative terms. The concept of hyperbolic time discounting is an example. But they are also understandable in qualitative terms, as cases of causal connection between

67. Peter M. Todd & Gerd Gigerenzer, *Simple Heuristics that Make Us Smart*, 23 *BEHAV. & BRAIN SCI.* 727 (2000).

68. George Loewenstein et al., *Risk as Feelings*, 127 *PSYCHOL. BULL.* 267, 267 (2001).

69. George Loewenstein, *Out of Control: Visceral Influences on Behavior*, in *ADVANCES IN BEHAVIORAL ECONOMICS* 689–723 (C.F. Camerer, G. Loewenstein, & M. Rabin eds., 2004).

70. I might, for example, substitute another, lower-calorie comfort food (say, carrots with humus?) or plan for more exercise while writing to offset my chocolate intake.

71. To be fair, the hyperbolic discounting model does suggest a solution—make the chocolate less easily accessible to me when I'm staring at my blank computer screen. But this solution doesn't acknowledge, let alone help to manage, the stress that causes me to turn to chocolate in the first place.

72. Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 *SCIENCE* 453 (1981).

73. See Dan Ariely et al., *Coherent Arbitrariness: Stable Demand Curves Without Stable Preferences*, 118 *QUART. J. ECON.* 73 (2003) (showing that the prior offering of an object for sale at a price known (by experimental subjects) to be random influences the price subjects are willing to pay for the object, even when subjects are reminded of the randomness of the initial offering price).

74. Christopher K. Hsee et al., *Preference Reversals between Joint and Separate Evaluations of Options: A Theoretical Analysis*, 125 *PSYCHOL. BULL.* 576 (1999); Itamer Simonson & Amos Tversky, *Choice in Context: Trade-off Contrast and Extremeness Aversion*, 29 *J. MARKETING RES.* 281 (1992).

patterns of perception and people's decisions.

Emphasis on patterns of perception and belief that motivate people's actions also fits well with recent neurophysiological findings. Using brain scanning technologies that can track areas of increased activation,⁷⁵ researchers are studying people's responses to decision-making situations. They have begun to find associations between neuroanatomical patterns of heightened activation and experimental subjects' preferences and judgments.⁷⁶ Different decisions in experimental choice situations correlate with different distributions of increased brain activation. This suggests a neurobiological substrate for personal choice that matches psychological accounts of choice as the product of patterns of perception and understanding.

II. SOLUTIONS

What are the implications of all of this for understanding why people gain weight, what might be done about it, and (most significantly for this Essay) whether law and government should have a role in efforts to stem the obesity epidemic? For starters, it's worth highlighting some good news. The selective upward and outward movement to the right on the BMI distribution curve signals that many people—those on the left side of the curve—are resistant to immediate temptation by food and thus at low risk for large weight gain as tasty foods become more convenient. This suggests an upper bound on the proportion of Americans with the potential to become obese. But what of those of us who can be tempted and often are? Attention to patterns of perception and understanding—to predispositions, competing goals and temptations, and surrounding cues—can yield creative strategies for bringing calorie intake and use into balance.

A. PSYCHOLOGY AND SOCIAL CUES

At the individual level, people with weight problems, family and friends, and clinical caregivers should try to identify the environmental triggers that lead to overeating—particular temptations, stressors, social cues, and other signals. Attention to the feelings, thought patterns, and eating behaviors these signals evoke can point the way to therapeutic interventions. Keeping tempting foods out of easy reach, especially when these signals are expected, is wise strategy, as is cutting back on exposure to troublesome social cues (e.g., the wandering tray at an office party, heaping with high-calorie offerings). But keeping out of

75. These methods, including Positron Emission Tomography (PET) and functional Magnetic Resonance Imaging (MRI) scanning, detect localized changes in glucose metabolism or blood flow, both of which are markers for changes in the intensity of brain tissue activity.

76. E.g., Markus Ullsperger & D. Yves von Cromon, *Decision Making, Performance and Outcome Monitoring in Frontal Cortical Areas*, 7 NATURE NEUROSCIENCE 1173 (2004); K. Richard Ridderinkhof et al., *The Role of the Medial Frontal Cortex in Cognitive Control*, 306 SCIENCE 443 (2004); Mark E. Walton et al., *Interactions Between Decision Making and Performance Monitoring Within Prefrontal Cortex*, 7 NATURE NEUROSCIENCE 1259 (2004).

harm's way has its limits as a strategy. Stress can rise to disturbing, even disabling levels if not "treated" with an edible fix, and staying away from the office party may be an unhealthy career move. The impulse to eat cannot always be averted and must at times be managed, by substituting carrots and humus for bread with brie, or baked chips for deep-fried chips, or otherwise limiting the self-damage. In this regard, smaller portions have their remedial role, at home and at fast food or other restaurants, even though, as I argued above, portion size is probably not a *cause* of the current obesity epidemic. Likewise, and more importantly, exercise has large remedial potential. If a few hundred excess calories per day translate into a twenty pound weight gain each year, the happy news for impulse eaters is that a few miles per day of sweaty penitence on a treadmill, bicycle, or on foot (walking or jogging) can by itself consume the body's calorie surplus.

All this, of course, takes will and discipline, traits much to be admired but in short supply. This is where the potential impact of social cues and cultural norms comes in. The person who lights up a cigarette, takes a puff, then exhales deeply at an office party is sure to provoke ire. This wasn't the case thirty years ago, but the unwritten (and, in many cases, written⁷⁷) rules have changed. Smoking has, in many settings, gone from cool to uncouth. It doesn't just endanger health; it violates norms of decency. People now light up surreptitiously or outside exit doors. This sea-change in social norms has helped to suppress smoking rates and save lives, by turning "cool" and civility into adjuncts of willpower. The same has not happened with risky, fattening foods. Brie or buttery cookies on the office reception tray, artery-clogging hors d'oeuvres, well-marbled main courses, and myriad sugary snacks are as acceptable now as were cigarettes years ago. In my own experience, a person who too openly sticks to health-conscious offerings at a group dinner risks gentle teasing for being ascetic ("Hey, you only live once").⁷⁸ Were social norms to shift toward such offerings, as they have away from smoking, personal willpower would receive a large boost. The same is true for time spent exercising. Were climbing stairs, commuting on foot, and taking time off from work for a run or workout to become the norm, many more Americans would burn hundreds more

77. Many localities have ordinances against indoor smoking, and many workplaces have rules against it.

78. This is, of course, anecdotal: an empirical study of group food selection norms in a range of settings (restaurant meals, dinner parties, tailgate gatherings, and other events, in a variety of regions) would yield useful information about opportunities to reduce overeating by influencing these norms. Advertisers and marketing consultants may well perform such studies on a proprietary basis. A radio advertisement (for an up-market gourmet food chain) running in Washington, D.C. as I write this Essay opens by making fun of the very thought of asking about the hydrogenated fat content of menu options at a fine restaurant, then promises to "put taste first," ahead, presumably, of such dull unpleasantries as butter and sugar content. My once-favorite Italian restaurant (considered by some to be the best in Washington) has transformed its menu, away from fish and olive oil-based choices toward meat, butter, and cheese. Again, these are anecdotes, but it seems likely that such marketing decisions have a business rationale, based on information about the inclinations of target consumers.

calories per day than they now do. These and other changes in social cues and mores would support healthier living without infringing upon people's sense of personal agency, by mobilizing preferences and patterns of thinking that push back against the attractions of high-risk eating.

Visceral needs and desires can be allies in this effort. We all want to be sexy, though some of us suppress this more than others. Sensual awareness is a potent motivator for fitness and dietary restraint, as the well-toned bodies in clingy attire on jogging routes attest. An erotic sensibility suffuses our culture—our stage and screen, music, fashion, humor, and casual conversation. We have become accustomed to worrying about this: we fear its coarsening effects, its challenge to faith and moral values, and its contribution to the spread of AIDS and other sexually transmitted illnesses. But to the extent that erotic awareness encourages attitudes and behaviors that keep calorie intake and use in balance, it is a potential tool in the campaign against obesity. Advertising and other promotional ventures that connect with our sensual awareness should (while respecting the constraints of decency) be part of the effort to recast overeating and sedentary living as unsexy and uncool.

Some might object to this strategy on the ground that it is insensitive to the shame many people, especially young women, feel about their own bodies. Images of physical perfection in film, advertising, and elsewhere set unrealistic standards, many say, giving rise to anorexia nervosa and related eating disorders. The surprisingly low incidence of eating disorders belies this worry. The prevalence of anorexia nervosa in the U.S. has been estimated at 0.1 percent.⁷⁹ This is hardly a negligible figure—it comes to about 300,000 people—but it pales by comparison to obesity's prevalence: there are approximately 100 million obese Americans.⁸⁰ And there is reason to doubt that a health-oriented campaign evocative of contemporary ideals of slimness will make anorexia nervosa and related disorders more common. These ideals are already embedded in our culture. The mental dynamic of perfectionism, shame, and struggle with authority figures (often parents) that commonly plays out in these disorders⁸¹ is unlikely to be much-influenced by health-oriented advocacy that builds

79. Department of Health and Human Services, *MENTAL HEALTH: A REPORT OF THE SURGEON GENERAL* (1999).

80. Based on 1999–2000 data, 15 percent of girls aged twelve to nineteen and 31 percent of women aged twenty to fifty-five are obese. Anderson, Butcher, & Levine, *supra* note 29, at 35. This compares with an approximately 0.1 percent prevalence for anorexia nervosa among girls aged fifteen to nineteen and an even lower prevalence for women aged thirty to thirty-nine. Alexander R. Lucas, *The Ups and Downs of Anorexia Nervosa*, 26 INT'L J. EATING DISORDERS 397 (1999) (a national projection based on review of medical records from all major hospitals in Rochester, Minn., during the late 1980s); *see also* American Psychiatric Association Work Group on Eating Disorders, *American Practice Guideline for the Treatment of Patients with Eating Disorders (revision)*, 157 AM. J. PSYCHIATRY 1, 7 (Supp. 1 2000) (stating that the “reported lifetime prevalence of anorexia nervosa among women has ranged from 0.5% for narrowly defined to 3.7% for more broadly defined anorexia nervosa”).

81. Jacinto O. A. Tan et al., *Control and Compulsory Treatment in Anorexia Nervosa: The Views of Patients and Parents*, 26 INT'L J.L. & PSYCH. 627, 630–31, 643 (2003) (finding that “patients diagnosed with anorexia nervosa find the struggle to be in control of themselves to be a core issue”); Christopher

on widely-held ideals about attractiveness.⁸²

B. PUBLIC POLICY AND LAW

The potential of social cues and cultural mores to activate patterns of perception and understanding supportive of weight-reducing behavior points the way to a pragmatic role for public policy and law. A liberal society, concerned about people's health but disinclined toward limits on personal freedom, should eschew command-and-control approaches to our eating and exercise choices. But it should ally law and social policy with our longer-term selves, against our vulnerability to life-endangering temptation.⁸³ By so doing, it can encourage us to act in health-friendly fashion as a matter of choice.⁸⁴

Some commentators with libertarian leanings object to any role for law or government in people's eating and exercise choices. "[I]ndividual self-control is the only viable option," Richard Epstein insists.⁸⁵ Not only does individual autonomy deserve great deference; government will get things wrong. "No sane person would trust his diet and lifestyle to a benevolent social planner. . . . [A]n individual himself is the only person who can put all the separate pieces together to find out if he is healthy."⁸⁶ This position begs the question of warring preferences—and competing patterns of perception and understanding. It ignores abundant evidence that our decisions vary with context—that how alternatives are framed, sequenced, and otherwise presented shapes our percep-

G. Fairburn et al., *A Cognitive Behavioural Theory of Anorexia Nervosa*, 37 *BEHAV. RES. & THERAPY* 1, 3–4 (1999) (arguing that "the central feature [of Anorexia Nervosa] is an extreme need to control eating").

82. This is speculative, of course, but we may soon have some relevant data. The prevalence of obesity, which began its rapid rise in the mid-1980s, predates the advent, in the last several years, of ever-more sexually revealing clothing styles. This change in styles has mainly affected women's casual clothes (low-slung stretch jeans, bare midriffs, visible undergarments, etc.) but by mid-decade, men too were moving toward slimmer, sexier fits. Cathy Horyn, *The New Peacocks*, *N.Y. TIMES*, Apr. 14, 2005, at E1. See also Christine Muhlke, *Paris is Losing it: Which Became a Fashion Craze First? The New Slim Silhouette or the Karl Lagerfeld Diet?*, *N.Y. TIMES*, May 1, 2005, § 6 (Magazine), p. 74 (reporting on fashion designer Lagerfeld's new diet book, quoting Lagerfeld as saying that "fashion is the healthiest motivation for losing weight," and displaying a stylized photo of Lagerfeld in very tight jeans). Will these shifts (and their depiction in film, advertising, and other media) affect the prevalence of obesity and/or eating disorders? Data on Americans' weight now and over the next few years won't answer this question for sure (since correlations can't prove cause), but it could be suggestive.

83. Bans on cigarette advertising and advocacy of condom use and/or sexual abstinence are examples of policies that aim to affect people's choices while preserving their sense of ownership over these choices.

84. One can of course claim that such action isn't a matter of "choice," since it is influenced by government intervention. But this assertion sweeps too broadly. It can be pressed whenever people make choices that they see as their own. All actions that people see themselves as choosing have multiple, unconscious social, psychological, and biological determinants. The distinction that I claim matters here is between choices that are consciously seen as one's own and actions that are consciously perceived as forced, by social or other circumstances.

85. Epstein, *supra* note 6, at 1365.

86. *Id.*

tions and preferences.⁸⁷ If we are to defer entirely to personal autonomy, to which preferences, arising from which decision-making contexts, should we defer? Epstein tries to finesse this question by taking peoples' choices as givens. They reveal our preferences, he holds: no more needs to be said. Probing and questioning people's motives is paternalism. Taking our choices as givens safeguards our liberty and dignity.

Missing from this story is any reason for preferring present decision-making circumstances (and the perceptions and choices to which they give rise) to other possible states of affairs (and the alternative choices these might engender). Putting constraints on the ability of those who benefit from current circumstances (e.g., fast food sellers) to influence our eating choices doesn't intrude on our autonomy as consumers. To the contrary, it arguably shields this autonomy, by diminishing the influence of advertising and sales efforts that appeal to our visceral cravings on behalf of shareholder value. Nor do public efforts to encourage exercise and healthy eating infringe on our liberty. To the contrary, they broaden it, by enriching understanding and awareness of the implications of our eating and exercise choices. Within most philosophical and religious traditions, choices made in more deliberative fashion, with more attention to long-term consequences, are better choices: more autonomous, virtuous, and reflective of our "true" or "deep" selves.⁸⁸ This weighs *against* the libertarian preference for taking current decision-making circumstances as given—and in favor of public efforts to change these circumstances by raising people's regard for the longer-term consequences of eating and exercise choices.⁸⁹

A related argument, hardly novel from a welfare economics perspective, supports legal and other public efforts to influence people's dietary and exercise choices. A compound market and political failure affects the context of these choices. Food producers and sellers spend upwards of \$11 billion per year on advertising and another \$22 billion annually on other promotions,⁹⁰ figures that dwarf public and not-for-profit sector spending on nutrition education and related health promotion efforts. This imbalance reflects health promotion's status as a "public good" (in economics terms), underprovided by markets since its benefits redound to vast numbers of "free riders" who act in healthier ways because of it. The influence of the food industry's media presence on citizen support for government efforts to promote healthy eating compounds this

87. See text accompanying notes 64–76.

88. For an accessible philosophical discussion of the relationship between deliberation and personal identity, see HARRY FRANKFURT, *THE IMPORTANCE OF WHAT WE CARE ABOUT* (1988).

89. This applies even to appeals to erotic feelings (summons to stay fit and trim to be sexy), since such appeals invoke a longer-term aim and call for a measure of self-restraint.

90. These figures are from 1998 data. See Marion Nestle & Michael F. Jacobson, *Halting the Obesity Epidemic: A Public Health Policy Approach*, PUB. HEALTH REP., Jan./Feb. 2000, at 12, 18 (citing A. E. Gallo, *The Food Marketing System in 1996*, Agricultural Information Bulletin No. 743, U.S. Dept. of Agriculture, 1998). Current industry spending on advertising and other promotional efforts is almost certainly much higher.

failure.⁹¹ To the extent that the industry's media impact encourages popular complacency about obesity, it softens voter support for efforts to raise awareness of the problem. And there is evidence of complacency: a 2002 study found that 78 percent of survey respondents didn't see their own weight as a serious health concern, although two thirds of the respondents were obese or overweight.⁹² Free rider problems, in short, lead both the private and public sector to undersupply messages about fitness and dietary restraint.⁹³

On the other hand, public policy and law should reject prohibitions or sanctions on the purchase or sale of problematic foods. Not only do such approaches constitute paternalism in the private sphere, at odds with mainstream conceptions of liberty in democratic societies; they are at high risk of backfiring. Evidence from both experimental and observational studies shows that controls imposed from outside can undermine people's intrinsic motivation to avoid proscribed behaviors.⁹⁴ Outside controls "crowd out" intrinsic motivation by failing to acknowledge it.⁹⁵ At best, external controls discourage people from exercising self-restraint;⁹⁶ at worst, they inspire resentment and defiance.⁹⁷ Personal motivation and discipline are central to weight control; legal proscriptions are at most an adjunct. It is thus penny-wise, pound-foolish to put people's intrinsic motivation at risk through government heavy-handedness. In the private realm of diet and exercise, the state should assert itself gently.

How might public policy and the law assert themselves gently, eschewing command-and-control regulation while encouraging people to take the long view of their eating and exercise choices? For starters, federal and state public health authorities ought to bring their credibility and resources to the task of transforming public understanding of food and fitness matters. This effort

91. I am not claiming here that the industry's advertising and other promotional efforts *caused* the current obesity epidemic: the available evidence doesn't support this judgment. See *supra* text accompanying notes 32–36. My contention, rather, is that these efforts encourage social acceptance of unhealthy eating; this, in turn, creates a political climate uncongenial toward public policies designed to encourage wise dietary choices.

92. Henry J. Kaiser Foundation, *supra* note 18, at 11 (citing J. Eric Oliver & Taeku Lee, *Public Opinion and the Politics of America's Obesity Epidemic*, Kennedy Sch. of Gov. Working Paper No. RWP02-017, May, 2002).

93. To be sure, there is a thriving diet industry—books, consultants, and mass media tout myriad programs and regimens. But this industry tends to promote quick fixes and fads: life-long self-discipline sells poorly.

94. Bruno S. Frey, *Institutions and Morale: The Crowding-Out Effect*, in *ECONOMICS, VALUES, AND ORGANIZATION* 437–460 (A. Ben-Ner & L. Putterman eds., 1998). Frey contends that both market incentives and regulatory constraints can erode intrinsic motivation.

95. *Id.* at 443–46. Frey argues that when outside constraints are perceived by their targets as acknowledging and affirming intrinsic desires to comply, these constraints have the opposite effect—that is, they reinforce, or "crowd in," intrinsic motivation. *Id.* at 444.

96. *Id.*

97. My own suspicion is that command-and-control regulatory approaches to food choice would be especially likely to provoke defiance, given widespread negative feelings about the "neopuritanism" of anti-obesity campaigners. See, e.g., John Tierney, *Fat and Happy*, N.Y. TIMES, Apr. 23, 2005, at A27 (chiding anti-obesity activists as "fatophobes" and puritan "scolds").

should not be limited to the likely causes of the obesity epidemic. Influences that correlate poorly with Americans' growing girth can nevertheless be part of the solution.

The power of public health authorities to transform national perceptions of a health problem has been illustrated in recent years by shifting attitudes toward smoking. Surgeon General reports, advertising bans, package warnings, and anti-smoking campaigns helped to turn smoking into a disapproved activity. Public health advocacy can and should do the same for sedentary living and risky eating. Health authorities should not present themselves as "food police" or puritan scolds, though information about health dangers ought to be part of their message. Anti-obesity campaigns that portray overeating as uncool, athleticism as chic, and slender (but not too skinny) as sexy are more likely to inspire people. On the other hand, promotional efforts should not shy from judicious use of shame: portraying obesity as a burden to others (medically and financially) and a sign of self-indulgence can lend force to calls for self-restraint.⁹⁸ Such messages work by taking sides in the struggles that take place within ourselves. They give a boost to motives, perceptions and understandings that oppose immediate temptation. In so doing, they push social mores, toward greater acceptance for exercise as a part of home and workplace routine, reduced reliance on high-calorie foods as staples at social functions, and more favorable reactions to people's calorie consciousness when choosing meals or snacks.

Law can and should take sides more directly in the struggles that go on within ourselves. Federal food assistance schemes should be refashioned as nutrition programs. Subsidies that lower the cost of calorie-dense sweeteners and other nutritionally dubious products should be terminated. Rechanneling food assistance dollars toward provision of low-calorie, high-nutrition meals at low cost is an urgent matter. Along similar lines, tax subsidies for spending on exercise programs would make fitness more affordable and send a message about its importance. The deductions employees now take for their own (and their employers') contributions toward workplace-based medical insurance could readily be extended to cover gym memberships, exercise equipment, and other, reasonable fitness-related expenses. On the other hand, tax incentives should not become intimate intrusions. Credits or penalties tied to people's weight, "bad" cholesterol levels, or the like would inspire ridicule, resentment, and a broader backlash against public efforts to promote health-conscious behavior.

Some urge that obesity itself be classified as an illness in order to make medical insurance coverage available for weight loss treatments. Recently, the federal Medicare program revised its coverage manual to allow consideration of

98. Through the National Institutes of Health or other agencies, public funding should be made available for trial and assessment of these and other promotional strategies.

claims for treatment of obesity.⁹⁹ The case for such coverage is less than compelling. Effective treatment protocols should be paid for, but few, if any, current approaches have been shown to work. Reconceiving obesity as a disease opens the way to demands for payment for myriad unproven weight loss regimens. Market and political pressures from anxious, even desperate patients will make it difficult for both private and public third party payers to refrain from covering unproven therapies. Purveyors of such treatments will be an added source of political pressure on Congress, Medicare's administrators, and state health insurance regulators. Obesity's high prevalence could translate into a huge new, wasteful healthcare expense.¹⁰⁰ A wiser path would be to commit substantial resources to studying the efficacy of current and proposed obesity treatments.¹⁰¹ Insurers should refrain from covering any until they are proven, and legal decision-makers in medical coverage disputes should insist on such proof.

Robust disclosure requirements are another way for law to take the health-promoting side in the struggles that go on within ourselves. Detailed consideration of labeling requirements is beyond my scope here, but essential elements (for pre-packaged foods) should include standardized, easily-measurable portion sizes; calories; percentages of calories from trans fats and other risky fats;¹⁰² and nutritional components that have been scientifically shown to be of value. Labeling requirements should be adjusted from time to time (perhaps by an independent scientific panel akin to those that advise the FDA on drug safety and approval issues) to take account of ongoing research on the risks and benefits of food components. The "Nutrition Facts" format now in place is a good template: it strikes a sensible balance between provision of adequate detail and quick-and-easy readability. Disclosure requirements for custom-served or packaged foods—e.g., restaurant meals, take-out foods, and fresh meats, fruits, and vegetables—are more difficult to craft. Individualized preparation and non-uniformity of ingredients and portion sizes make precision impossible. But

99. Press Release, United States Department of Health & Human Services, HHS Announces Revised Medicare Obesity Coverage Policy (July 15, 2004), at <http://hhs.gov/news/press/2004pres/20040715.html> (stating that the new policy "removes language in the Medicare Coverage Issues Manual stating that obesity is not an illness" and that the change "is not expected to have an immediate impact on Medicare coverage [as] it does not affect the existing Medicare coverage of treatments of diseases resulting in or made worse by obesity"). By removing the language, the Centers for Medicare & Medicaid Services now "allows members of the public to request that Medicare review medical evidence to determine whether specific treatments related to obesity would be covered by Medicare." *Id.*

100. The more than \$30 billion that Americans now spend each year on weight loss products and services, Henry J. Kaiser Foundation, *supra* note 18, at 10, offers a portent of what might happen to the nation's health care bill were medical insurance to cover such spending. The price elasticity of demand for obesity treatments is probably quite high (by comparison with many costly and invasive medical technologies), making moral hazard a large problem for coverage of these treatments.

101. In fiscal year 2002, NIH devoted approximately \$300 million, about one percent of the agency's funding (and less than one percent of what Americans spend annually on weight loss regimens), to obesity research. *Id.* at 10, 17.

102. Not all saturated fats have been shown to be higher-risk than other calorie sources. Gary Taubes, *The Soft Science of Dietary Fat*, 291 SCIENCE 2536 (2001).

more can and should be done, at reasonable cost. Restaurants, supermarkets, and other sellers of custom-served or packaged foods could be required to post "Nutrition Facts" information (with appropriate error ranges) in highly visible fashion. Disclosure requirements not only contribute to better-informed food choices; they bias these choices in health-friendly fashion, by affecting perceptions and understandings that give context to choice. To the extent that a snack's excess calories loom large, the temptation to indulge may seem smaller. And to the extent that calorie consciousness becomes a habit, or even a cultural more, susceptibility to temptation diminishes.

Product liability also has a place in an autonomy-regarding legal scheme that nonetheless takes sides, in favor of health-friendly eating. Foods that fail the consumer expectations or risk-utility tests for defective design should be subject to liability, though the difficulty of proving causation-in-fact (by tying a food product to a person's illness) will typically preclude pro-plaintiff judgments.¹⁰³ It strains plausibility to claim that such foods as butter, cheese, and well-marbled meats, widely known for their high calorie and saturated fat content, are "dangerous to an extent beyond that . . . contemplated by the ordinary consumer,"¹⁰⁴ a standard formulation of the consumer expectations test.¹⁰⁵ But less-well understood products like McDonalds' Chicken McNuggets, which allegedly contain quantities and kinds of fat not generally found (or expected) in fried chicken,¹⁰⁶ appear to meet this standard. Foods with substantial "trans" (artificially hydrogenated) fat content also arguably fit this bill. Likewise, it would be intrusively paternalistic to apply the risk-utility test to find butter, cheese, or meat "unreasonably dangerous," in view of their widespread, long-standing popularity.¹⁰⁷ But the benefits of adding exotic fats to "Chicken McNuggets" or hydrogenating the oils in myriad packaged foods are surely outweighed by the health risks. Alternative, healthier preparations are possible at little or no increased cost, making it difficult for these gratuitously hazardous

103. The enormous variety of foods that people consume over a lifetime virtually rules out the possibility of proving causation in cases of illness that allegedly arise from long-term exposure to a particular dietary hazard. Myriad foods, manufactured and sold by many vendors, may contain any given hazard—e.g. simple sugars or particular fatty acids—making market share and other proportional liability theories exceedingly difficult to apply. Since obesity (and therefore obesity-related illness) ensues from long-term food exposure, the causation-in-fact barrier will almost always be prohibitively high for obesity-related claims.

104. RESTATEMENT (SECOND) OF TORTS § 402(a) cmt. i (1979).

105. *See also* *Barker v. Lull Eng'g Co.*, 573 P.2d 443, 458 (Cal. 1978) (holding that consumer expectations test for defective design is met when "plaintiff demonstrates that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner").

106. *See* *Pelman v. McDonalds' Corp.*, 237 F. Supp. 2d 512, 535 (S.D.N.Y. 2003).

107. Some might argue that risk-utility balancing requires that conclusion that such foods are "unreasonably dangerous," notwithstanding their popularity, in view of the harm they do. To refrain from reaching this conclusion out of concern about paternalism is to depart from the literal meaning of the risk-utility standard, which differs from the consumer expectations test *because* it does not defer to popular understanding. To this, I would respond that a measure of doctrinal impurity in applying risk-utility analysis is preferable to paternalistic consistency here.

products to survive risk-utility scrutiny.¹⁰⁸

Similar logic applies to liability for failure to adequately warn of food risks. The risks of weight gain, cardiovascular disease, and diabetes from excessive consumption of calorie-rich foods high in sugar and saturated fat content are by now so well known that courts are unlikely to require sellers to warn of these risks. Risks “generally known and recognized” do not require warnings, according to standard black-letter formulations.¹⁰⁹ This legal test arguably allows courts to count the benefits that accrue from a high-visibility warning’s emotive impact on people’s perceptions, even when the cognitive content of a warning is widely known. Emotional impact matters: risks can be widely known, yet not “well-recognized.” People’s visceral awareness of a risk should be a factor when courts assess whether a warning is required or adequate. On the other hand, there is a measure of paternalism in requiring sellers to restate the obvious about butter, bacon, and the like. On balance, the persuasive potential of such warnings probably outweigh their trace of paternalism (though there is a risk of consumer backlash). The paternalism here is a minor intrusion, since mere warnings, as opposed to outright bans (or liability for defective design) permit consumers to choose and make them responsible for their decisions. For foods with hazards that are not widely known, even cognitively, the case for warnings is clear. Substantial trans-hydrogenated fat content is an example of such a hazard. Food producers have for decades promoted artificially hydrogenated vegetable oils as healthier alternatives to butter and other animal fats. Only in the last several years have the harmful effects of trans fats been well-publicized. It is thus likely that much consumption of trans fats has been based on misunderstandings about their safety—misunderstandings that persist today.¹¹⁰

Obstacles to proof of causation-in-fact will typically preclude liability for failure to warn.¹¹¹ Yet the ability of plaintiffs to bring plausible duty-to-warn claims, accompanied by non-frivolous, if weak, arguments about causation, gives plaintiffs a realistic hope of reaching trial—and hence potentially substantial settlements. The same is true for defective design claims. As a practical matter, though, a related set of effects is more important. High-profile lawsuits transform consumers’ and investors’ perceptions. By spotlighting food hazards, litigation that makes headlines reorients consumer preferences, away from the targeted foods. Investor skittishness, in turn, leverages these effects. Sharehold-

108. For an analysis of possible product liability design defect claims in fast food suits, see Caleb E. Mason, *Doctrinal Considerations for Fast Food Obesity Suits*, 40 TORT TRIAL & INS. PRACTICE L.J. 75 (2004).

109. See RESTATEMENT (SECOND) OF TORTS § 402(a), cmt. j (1979). The Third Restatement adopts a similar formulation—“obvious or generally known.” RESTATEMENT (THIRD) OF TORTS: PRODUCT LIABILITY, § 2 cmt. j (1979).

110. Continued, widespread use of margarine (made from trans-hydrogenated vegetable oil) as a butter substitute (for health reasons) is illustrative.

111. The same problems (involving the tying of illnesses to particular defendants) that make establishing causation-in-fact difficult in defective design actions, see *supra* note 100, are present in failure-to-warn cases.

ers' and bondholders' worries about liability risk, costly settlements, and fleeing consumers translates into pressure on food producers to change their practices. This package of legal and business risks could push the industry toward healthier ingredients and product lines, as well as clearer, more vivid warnings. Even "failed" lawsuits can succeed in this manner, as the cases brought against McDonalds illustrate. McDonalds has so far beat back plaintiffs' efforts to hold it liable for their obesity and its health consequences,¹¹² yet it has, in effect, lost by winning. Suits alleging that McDonalds sells dangerous food have stirred a wave of adverse publicity for the firm,¹¹³ which has responded by removing dangerous fats from some menu items, reducing portion sizes, and adding salads, grilled chicken, and other lower-calorie items. The risk of liability, in sum, can influence consumer and investor perceptions, reframing our eating choices in health-friendly fashion, consonant with the interests of our longer-term selves.

CONCLUSION

America's obesity epidemic reflects a shift in the balance of power within ourselves. More than ever, appealing foods offer here-and-now gratification, made possible by technological innovation in food production and preparation. Many, though not nearly all of us, find the temptation irresistible: our self-restraint is failing to rise to the occasion. We burn about as many calories as we did before obesity's prevalence began its climb in the mid to late 1980s. But many of us are consuming hundreds of calories per day more than we once did. We take in these calories not at mealtime but as snacks. In the face of time pressure and tasty enticement, self-discipline is falling short. Competing concerns and desires—long-term health, sexuality, and the other satisfactions of a fit and active lifestyle—aren't enough to counterbalance food's here-and-now temptation.

This need not be. The perceptions, understandings, and motivations that drive our eating behavior aren't black-box givens. They are remixed and reframed, in ongoing fashion, by myriad social factors. Market actors, cultural norms, and public policy and law have major roles in formulating our food options. To treat our current eating habits as sovereign expressions of preference, beyond the proper focus of public policy and law, is to disregard this pervasive influence. Law and government can make a large difference, without being oppressive, by aligning themselves with our longer-term concerns, from the ascetic to the sensual, in the face of high-calorie temptation. My purpose in this Essay has been to propose some general guidelines for how public health authorities,

112. So far—but the *Pelman* dismissal was reversed by the Second Circuit, and the case was returned to the district court for discovery. *Pelman v. McDonald's Corp.*, 396 F.3d 508 (2d Cir. 2005).

113. To be sure, there have been other recent sources of negative publicity about the health effects of McDonalds' foods, notably the 2004 documentary, *SUPER SIZE ME*, see *supra* note 40, and Eric Schlosser's 2001 bestseller *FAST FOOD NATION*.

regulators, and courts might go about this.

My guiding principle is that it is both wise from a policy perspective and protective of personal freedom for government to support health-friendly food and exercise choices. Public education efforts, mandatory disclosure of ingredients and risks, and the prospect of liability for gratuitously hazardous food products can make a difference in this regard without overriding people's eating preferences. On the other hand, policies perceived as intruding upon people's dietary choices are likely to provoke backlash. Americans want neither right-wing moralists nor left-wing "food police" to take command in the private realm. The coming rhetorical battle over government's response to our growing girth will thus be, in large measure, about whether proposed measures expand or infringe upon our freedom to choose.