

ESSAY

# The Progressive Era Body Project<sup>1</sup>: Calorie-Counting and “Disciplining the Stomach” in 1920s America

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## Abstract

Although the scientific origins of the calorie date back to the 1820s, calorie counting for weight loss only became popular in the late 1910s and 1920s. Placing this development in the broader context of the Progressive Era, this article considers how calorie counting and the reconstitution of food as calories reflected the period’s fixation with science, rationalization, and quantification. This article also situates calorie counting within shifting bodily ideals among white women in the 1920s, and the ways in which class and race informed the promotion of the slender body as the feminine ideal. The second half of this article focuses on exchanges between Lulu Hunt Peters, a syndicated newspaper columnist and the author of a best-selling calorie-counting guide, and advice-seeking readers of her column. While Peters presented calorie counting as empowering for dieters and a way for them to seize control over their weight, her calorie-restriction program facilitated a new form of bodily discipline and self-regulation during a period that saw enhanced forms of surveillance in other areas of life.

It was after World War I, and Adelaide Hoag was calorie counting. Her husband had gifted her Dr. Lulu Hunt Peters’s calorie-counting book, *Diet and Health with Key to the Calories*, for Christmas.<sup>2</sup> Hoag was 5 feet, 4 inches, and 182 pounds; according to Peters’s book, this was nearly 50 pounds above the ideal weight for a woman of her height.<sup>3</sup> In the marginalia of Hoag’s copy of *Diet and Health with Key to the Calories*, she scribbled various calculations, attempting addition, subtraction, and multiplication problems in order to determine how many calories she would have to cut from her diet in order to lose weight. She also used Peters’s blank calorie and weight charts to record her body weight and calorie consumption.<sup>4</sup> For two weeks, Hoag subsisted on a meager diet averaging only 1,027 calories a day, ranging from a low of 800 to a high of 1,300. By the end of her second week of calorie restriction, she had shed four pounds.<sup>5</sup>

Curiously, Hoag stopped logging her calorie intake after only two weeks, and her weight entries ended after the third week. What did this mean? Was Hoag content to lose four pounds? Was she simply tired of recording calories every day and body weight every week? Or did Hoag find her dieting regime too difficult to maintain, with its requisite tallying of the caloric value of every morsel of food ingested and its

insistence on defying hunger and temptation? Whatever prompted Hoag to stop tracking her calories, the few entries she left behind reveal that she at least attempted one of the new body projects to emerge during the Progressive Era—calorie counting.

Like Hoag, many Americans in the late 1910s and 1920s seemed at least curious about calorie counting. Peters's best-known book, *Diet and Health with Key to the Calories*, sold two million copies and has been described as America's first best-selling diet guide.<sup>6</sup> Peters's book was just the beginning. By 1929, the *New York Times* observed that, "as a nation, Americans had almost become calory [sic] conscious."<sup>7</sup> Even some schoolchildren became familiar with calorie counting. In 1927, home economist Lydia J. Roberts remarked that, "in this country the calorie is a familiar word in the vocabulary of practically every adult, and anyone who doubts the possibility of popularizing it should observe a group of ten-year-old children counting their calories."<sup>8</sup>

Roberts's observation was not an exaggeration. Girls as young as eleven years old wrote Peters asking for dieting advice. "I am 11 years old, and weighed 136 lbs., which was too much," a precocious dieter named "Dorothy" reported to Peters in a letter published in 1924.<sup>9</sup> Like many of Peters's adult correspondents, Dorothy proudly announced the successes of her adherence to Peters's catechism of calorie counting: "I wrote to you for your book on reducing, and as soon as I received it [I] began according to directions. In seven weeks I have lost 11 ½ lbs ... I keep a strict account of the calories I eat each day."<sup>10</sup> "B.N.," age fourteen, also wrote Peters to herald a triumphal weight loss: "Two weeks ago I weighed 154 pounds! Now I weigh 146 ½."<sup>11</sup> As Adelaide Hoag had done during her two-week experiment with calorie restriction, B.N. limited herself to about 1,000 calories per day, and boasted that she "refuse[d] all kinds of candy and cake at school."<sup>12</sup> Peters responded by congratulating B.N. on her weight loss: "I just love to get letters from you. And it makes me happy to know you are following my advice and getting out of the fat girl type."<sup>13</sup> Such exchanges between Peters and her readers offer a glimpse into calorie counting when it first took off as a dieting program.

Now taken for granted, calorie counting has only been a part of the toolkit of American dieters since the late 1910s and 1920s. As this article argues, contextualizing calorie counting within this period reveals that the practice was a quintessentially Progressive Era regime touted as modern, scientific, and rational. And like other Progressive Era tools such as scientific management, calorie counting facilitated a new form of discipline and generated new expectations. If scientific management disciplined labor and contributed to higher expectations of worker productivity, calorie counting imposed considerable regulations on dieters' food consumption and created the expectation that every dieter should be able to lose weight if they abided by calorie-restriction programs. Representations of the calorie as an objective, fail-proof measure of the energy value of food reinforced the assumption that one's weight was a choice, while subjective considerations of other variables affecting weight were dismissed. And despite the apparent contradiction between Peters's advice to discard foods that could sabotage one's diet and progressive reformers' preoccupation with preventing waste (include food waste), both parties ultimately shared an admiration for the virtues of an abstemious diet.<sup>14</sup>

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The scientific origins of the calorie predate the publication of Peters's dieting guide by roughly a century. The French chemist and physicist Nicolas Clément-Desormes is credited with inventing the calorie as a measure of energy in 1824. In the decades that followed, European scientists measured the energy value (heat) of foods and

how animals and human beings expended that heat. To determine the energy contained in foods, they constructed bomb (combustion) calorimeters, or insulated vessels containing food to be burned, and water for measuring changes in temperature before and after combustion. In the 1860s, the English chemist Edward Frankland calculated the energy value of various foods by using a small copper tube that held two liters of water and two grams of food; the energy values of foods yielded from these experiments became the standard used by nineteenth-century European and American scientists.<sup>15</sup>

To determine the heat emitted by animals and men, German physiologist Max von Pettenkofer and his associate Carl von Voit began conducting experiments using a respiration calorimeter at the University of Munich in 1866. Large enough to accommodate an adult male subject at rest and at various modes of activity for days on end, Pettenkofer and Voit used their respiration calorimeter to collect data on their subjects' oxygen intake, as well as carbon dioxide, water, and heat output. By analyzing these measurements, Pettenkofer and Voit theorized how the body converted proteins, carbohydrates, and fats into energy, and how much heat each type of nutrient supplied the body once metabolized.<sup>16</sup>

An American chemist and physiologist, Wilbur Olin Atwater, had become familiar with the German physiologists' work while studying at Leipzig and Berlin from 1869 to 1871, and on later visits to German labs in the 1880s and 1890s. Applying what he had gleaned in Germany, Atwater calculated the energy values of thousands of foods and determined people's calorie requirements under various activity levels. From the 1880s to the early 1900s, Atwater wrote extensively about calories and lectured on the importance of consuming calories commensurate with energy expenditure.<sup>17</sup> In general interest magazine articles and U.S. Department of Agriculture tracts, he also pressed Americans to purchase foods that would provide necessary calories and nutrients at the least expense.<sup>18</sup> Poor Americans, for instance, were to obtain their calories and nutrients from inexpensive beans rather than pricey cuts of meat.<sup>19</sup> At a time when labor agitated for higher wages, Atwater suggested that, "the destruction of the poor is their improvidence."<sup>20</sup> Atwater's conception of the calorie as a way to undercut the claims of labor illustrate historian Nick Cullather's observation that "the calorie has never been a neutral, objective measure of the contents of a dinner plate."<sup>21</sup>

About a decade after Atwater's death, the U.S. government would feature calories in its World War I food conservation campaigns. It published pamphlets that included calorie counts of various food items and recommended daily calorie allotments for individuals based on activity level, sex, and age.<sup>22</sup> And although the Food Administration was most likely to advise Americans to "eat less than we are accustomed to of some of the things that we like," at least one of the agency's posters simply enjoined Americans to "eat less" in service of the war effort.<sup>23</sup> The wartime agency was particularly invested in Americans conserving meat, wheat, fat, and sugar for domestic and Allied troops; these items were calorie dense, and the dry goods among them were relatively easy to ship.<sup>24</sup> As historian Helen Zoe Veit and others have chronicled, U.S. Food Administration rationing campaigns conveyed to Americans that failure to conserve selected foods constituted neglect of one's civic duty.<sup>25</sup> Home economists in particular were central to the government's wartime rationing efforts, as U.S. participation in World War I took place during the professionalization of home economics—a nascent occupation that had only held its first national conference in 1899.<sup>26</sup> Self-styled at various times as "domestic science," "scientific housekeeping," "house science," "progressive housekeeping" (and of course, home economics), home economists sought professional recognition and legitimacy by representing their endeavor as a

scientific one that promised to make homemaking more rational and efficient.<sup>27</sup> Promoting knowledge about calories fit right into this refashioning of food provisioning for one's household into a scientific enterprise.

It was only after the war that calorie counting for weight loss became a mass phenomenon, however. Calorie counting emerged during a period when white women from the privileged classes—and those who aspired to convey belonging to such classes—were preoccupied with dieting. (Although there was a contingent of African American elites during this time, black women “did not diet in large numbers,” according to historian Margaret A. Lowe’s study of young American women’s body image in the late nineteenth and early twentieth centuries.<sup>28</sup>) As nineteenth-century associations of plumpness with beauty, health, and wealth were effectively overturned in the late 1910s and 1920s, and as the narrow-hipped flapper replaced the busty and wider-hipped “Gibson Girl” of the 1890s as a paragon of beauty, dieting became what historians have described as a “craze” among a contingent of American women.<sup>29</sup>

Everyone from restaurant servers to employers noticed that women were restricting their food intake. According to the *Journal of Home Economics* in 1910, waiters dreaded serving women patrons because they “[did] not order substantial meals or give large enough tips.”<sup>30</sup> Similarly, supervisors in Boston’s downtown business district in the 1920s observed that their “office girls” suffered fatigue and fainting spells from having gone without breakfast and subsisting on only “pink drinks and confections” for lunch.<sup>31</sup> To be sure, these anecdotes should be read with a measure of skepticism. Women who reined in their appetites while dining out may have consumed sizable meals in private. Reports of fainting spells among Boston “office girls” may have either been exaggerated, or a function of workers feigning fatigue in order to secure respite from work.<sup>32</sup> But historians have unearthed countless other anecdotes such as these, all pointing to women’s attempts to regulate food consumption in their quest to be thin throughout the 1910s, 1920s, and even during the Great Depression. In 1926, *The Delineator*, a women’s magazine that billed itself as “a journal of fashion, culture, and fine arts,” received over twenty thousand letters related to dieting.<sup>33</sup>

Dieting was particularly popular among younger women. Concerned nutrition experts, physicians, and school administrators all observed that dieting was rife among relatively well-to-do high schoolers and college coeds. University of Chicago home economics professor Lydia J. Roberts noted that teenage girls’ dieting got in the way of nutrition education to inculcate healthy eating habits. In her 1927 text, *Nutrition Work with Children*, Roberts observed that, “to the average adolescent girl, ‘fatness’ is to be abhorred above all things.”<sup>34</sup> This fear of fat continued as young women enrolled in college. Coeds emancipated from parental supervision could diet free from objections they might have encountered at home. The historian Lowe suggests that at Smith College, students’ dieting even affected the school’s cafeteria expenditures and food purchases. Once dieting became an entrenched practice at the elite Massachusetts women’s college, campus officials reported purchasing fewer provisions overall, and having to order different types of items as demand for calorie-dense potatoes plummeted, while lettuce, tomato, and celery consumption rose.<sup>35</sup> Dieting practices at Smith alarmed not just college officials but also a minority of students critical of the campus dieting culture. Lowe notes that, in 1924 three students wrote a letter to the editor of the student newspaper, the *Smith College Weekly*. These students cautioned: “If preventive measures against strenuous dieting are not taken soon, Smith College will become notorious, not for the sylph-like forms but for the haggard faces and dull, listless eyes of her students.”<sup>36</sup>

Dieters such as those at Smith were not just interested in talking about dieting. They also monitored their weight constantly. By the 1910s, the widespread availability of public and private scales facilitated this incessant self-surveillance and made dieters aware of even the slightest fluctuations in weight. Public scales had been developed as early as the mid-eighteenth century in France and England; German-made, pay-to-use “penny scales” later found their way to American drugstores, retail shops, railroad stations, movie theaters, banks, and offices in the 1880s. Private bathroom scales followed in the 1910s.<sup>37</sup> Once they became available, penny scales and bathroom scales became dieters’ preferred contrivances for monitoring progress in weight loss. The *New York Times* reported in 1925 that penny scales in department store bathrooms received so much traffic that they were more profitable than gumball machines.<sup>38</sup> And unlike benign gumball machines, the use of penny scales could result in emotional highs and lows. As the same *Times* article related, “pennies drop into the slot all day; [sic] and the air is heavy with sighs.”<sup>39</sup> Such attention to one’s weight seemed to yield some results, at least for younger women. Middle-class and affluent college-age women of the 1920s were typically thinner than their mothers and young women of previous generations. At Smith, a college physician determined that 16 percent of the senior class was underweight in 1923—a determination that the college physician likely made after consulting the life insurance industry’s height-to-weight tables for women, which debuted in 1908.<sup>40</sup> At three of Smith’s “Seven Sister” exclusive women’s colleges—Mount Holyoke, Vassar, and Wellesley—alumnae of the 1920s were taller than their mothers, but their hips were narrower.<sup>41</sup>

American women’s policing of their weight in the 1920s took place during a time when the thin female body was increasingly associated with privilege.<sup>42</sup> Influenced by Thorstein Veblen’s *Theory of the Leisure Class*, historian Joan Jacobs Brumberg has argued that early twentieth-century women with means sought to define their bodies as “decorative” rather than “functional.”<sup>43</sup> These women cultivated a lissome appearance to convey their perennial exemption from productive (and reproductive) labor, and to contrast the daintiness of their own bodies with the intensely utilized bodies of the working classes.<sup>44</sup> Representations of women in the broader popular culture reflected this dichotomy. Illustrated advertisements depicted aristocratic women not only as the slenderest of creatures but also unusually tall and ethereal.

Ironically, at the same time that wealthy women sought the look of a decorative body exempt from physical labor, the 1920s also saw another form of physical engagement—recreational exercise—being promoted to young women of the middling and affluent classes. Women athletes like the American swimmer Gertrude Ederle were celebrated, and doctors and the popular culture represented physical fitness among women as both health promoting and “modern.”<sup>45</sup> Importantly, however, women of the 1920s were not being encouraged to engage in the type of high-intensity aerobic exercises commonplace today. While achieving a “svelte” and “graceful” figure was certainly touted as an advantage of exercise, maximum physical exertion and exercise that might burn as many calories as quickly as possible were not generally the stated objectives of women’s exercise.<sup>46</sup> Rather, as historian Birgitte Søland observes, the purpose of exercise was to cultivate “a harmonious, fit female body, radiating health and ‘natural’ feminine beauty.”<sup>47</sup> Exercise that was considered too strenuous might undercut women’s femininity, and thus physical education instructors and doctors advised women to participate in light-to-moderate exercises like rhythmic movement, swimming, cycling, walking, and stretching.<sup>48</sup> Regulating diet was still regarded as the primary means of achieving and maintaining weight loss.

High fashion was another player in the nexus between class and bodily ideals among American women. As the *New York Times* declared in 1925, fashion was “one of the mightiest forces in nature.”<sup>49</sup> High fashion also happened to be overtly anti-fat. In fact, it might be said that what distinguished high fashion from more democratic, mass-produced clothing was that the former was reserved exclusively for the thin body. In a 1923 interview with a U.S. newspaper, Paul Poiret, the French clothing designer celebrated as the “high priest” of fashion, bluntly spelled out his unwillingness to dress “fat women,” and presaged many exclusive fashion lines’ notoriously narrow range of available clothing sizes today:

We do not pay much attention to fat women. They are the infirm among the fashionable. We cannot do anything special for them. They have merely to trail along the path of la Mode. Their case is not for the dress designer—it is for the physician.<sup>50</sup>

While Poiret and other gatekeepers of high fashion tended to sanction only thin bodies, even mass-market, ready-to-wear fashions of the 1920s were implicated in women’s heightened body consciousness and the increasing conflation of the thin body with wealth. Off-the-rack garments gave women an impression of what their form ought to look like, both in terms of body mass and proportion. The standard sizing labels affixed to these clothes also provided a sense of where one stood on the spectrum of sizes. Furthermore, historians have argued that the ubiquity and relative affordability of mass merchandising had the potential to contribute to the erosion of class distinction.<sup>51</sup> According to this logic, the democratization of fashion made it trickier for women to discern the social status of others by reference to their clothing. To circumvent this “problem,” well-heeled women increasingly resorted to the body itself as a marker of class.

Being thin was also a way for privileged women to project a refinement and moral superiority that was defined by possessing willpower amid an abundance of unprecedented quantities and varieties of mass-produced food.<sup>52</sup> As historian Peter N. Stearns has suggested, the thin body in early twentieth-century America was analogous to the various “civilized restraints” of the upper classes in seventeenth- and eighteenth-century Europe.<sup>53</sup> Early Modern Europeans sought to distinguish themselves from those they viewed as uncouth by suppressing bodily urges—urges like spitting and relieving oneself in public.<sup>54</sup> In conjunction with conveying refinement, restrained appetites have also communicated religious distinction and moral superiority, signifying a rejection of one of the seven deadly sins—gluttony. As scholars Caroline Walker Bynum and R. Marie Griffith have shown, medieval saints to contemporary American evangelicals have restricted their food consumption to demonstrate religious piety and achieve spiritual transcendence.<sup>55</sup> Although many dieters of the 1920s may not have regarded their bodily self-regulation as expressions of religious devotion per se, the aesthetic appeal of the slender feminine body was inextricable from its association with virtue within the context of what historian Veit calls “the Progressive ideology of self-control.”<sup>56</sup>

Paradoxically, American women’s heightened imperative to regulate their bodies took place during the “Roaring Twenties”—a period when the flapper set putatively availed itself to pleasures of the flesh that had been verboten during the Victorian era. Rather than full emancipation from bodily constraints, however, flappers who dieted swapped restrictions on their carnal appetites for the dietary variety. But this

shift from one bodily disciplinary regime to another was not just a function of an ahistorical impulse for self-control. Calorie counting and unprecedented vigilance to weight management gained momentum just as the women's suffrage movement was about to achieve its objective—ratification of the Nineteenth Amendment in 1920. The order of these two developments is worthy of some attention. As feminist author Susan Faludi has observed, gains by American women have been met with a “backlash” in which the popular culture has sought the return of women to nonthreatening, traditional roles in housewifery and motherhood.<sup>57</sup> Naomi Wolf has similarly argued that when American women achieve greater status, pressures mount on them to focus on their appearance—including being impossibly thin—so that they have less energy and attention to compete with men in the professional and economic realms.<sup>58</sup>

Another irony of American women dieters in the 1920s was that while they might have sought slender bodies in order to appear more feminine and fashionable, the premium that diet advice columnists placed on willpower in the face of hunger and temptation could be seen as a means of claiming a traditionally male identity in which the rational mind triumphed over crude bodily impulses. Not only have women been more closely associated with nature, the body, and bodily processes such as reproduction, but as feminist theorist Liz Frost has observed, Western “philosophy, morality, science, medicine, the law and family [have] all reinforce[d] that woman *is* her body.”<sup>59</sup> In contrast, although men's physical strength and sexual organs have been prized and deemed superior to women's, the male identity has been represented as multidimensional, encompassing both a body and a rational, controlled mind.<sup>60</sup> The notion that the mind was superior, and should govern the body, had prevailed since classical times; Cicero famously affirmed that “reason should direct and appetite obey.”<sup>61</sup> Disciplining the body through the exercise of willpower, then, enabled women to transcend what was considered an intrinsic constraint of their sex, and defy the idea that they were ruled by bodily impulses. By emphasizing the importance of discipline in weight control, flappers who dieted inadvertently mimicked attributes associated with maleness, both in terms of their internalization of the ideology of the mind mastering the body and in their attempts to achieve fat-reduced physiques, which could result in smaller chests and narrower hips.

Lulu Hunt Peters was arguably the chief promoter of mind over body when it came to the new dieting program of calorie counting in the late 1910s and 1920s. Originally from Maine, Peters was a California-based medical doctor best known for her book *Diet and Health with Key to the Calories*, and a nationally syndicated newspaper column also called “Diet and Health.” Readers of Peters's column likely included wealthy, middle-class, and even working women, if the two million Americans who purchased her book was any indication of the reach of her fan base. The column was not, however, exactly an indispensable resource for poor Americans. The poor would not have had the luxury of heeding Peters's recommendation that they discard perfectly edible, tempting foods that could derail their diets. Wealthier women like Adelaide Hoag would have found the column more useful. Hoag, the dieter mentioned at the outset of this article, was a clubwoman married to a prominent Chicago obstetrician who had served as president of the Chicago Medical Society from 1899 to 1900.<sup>62</sup>

Like Hoag, Peters's readers also appeared to be overwhelmingly female. Although many of the readers who wrote asking for advice only provided their initials, the information they volunteered about themselves, as well as their self-identification as a “Mrs.” or a “girl,” revealed their gender.<sup>63</sup> Women were the primary practitioners of calorie counting for weight loss in the 1920s given that dieting more broadly was primarily

a feminine preoccupation. If men counted calories, they would have been more likely to do so in order to *gain* weight or as part of a muscle-building regimen. The 1920s saw the tail end of the “crisis of masculinity” that historians have described—a period from roughly the 1890s to the 1920s when industrialization, urbanization, the closing of the frontier, ratification of the Nineteenth Amendment, and increasing educational attainment among women—contributed to an intensified anxiety about men’s putative emasculation.<sup>64</sup> In response to this anxiety, rugged, hypermasculine figures like the muscleman Bernarr Macfadden, and later, Charles Atlas, were apotheosized as embodiments of the male ideal, and bodybuilding, pugilism, and football gained prominence.<sup>65</sup> Although both women and men of the 1920s sought lean physiques, men exercised to build muscle and project virility and strength, not to become skinny.

Peters’s column shared the didactic and earnest tone of Progressive Era food and nutrition experts who nurtured a faith that once Americans acquired more knowledge about food, their eating habits would change accordingly.<sup>66</sup> She was convinced that a practical knowledge of calories was essential to those hoping to forestall weight gain and general ill health: “The reason that so many of our adult population are overnourished, hence overfat and diseased ... is due to the fact that the knowledge of the calorie value of foods has not been known.”<sup>67</sup> To the calorie-counting guru and her acolytes, a knowledge of calories combined with the practice of disciplined calorie counting seemed to be the most precise, effective ways to lose weight and maintain a slender figure in a modern, scientific America.

Peters assured followers that as long as they knew the calorie counts of the foods they consumed and how to ration their daily caloric intake, they would shed pounds.<sup>68</sup> A daily reduction of 500 calories, Peters wrote, was equivalent to a loss of “2 ounces of fat,” which amounted to “4 pounds per month, or 48 pounds per year”; shaving 1,000 calories a day from one’s diet would add up to a loss of “96 pounds per year!”<sup>69</sup> Lest readers doubt the efficacy of this novel diet program, Peters promised them that calorie counting and calorie restriction would indeed produce dramatic weight loss: “These pounds you can absolutely lose by having a knowledge of food values (calories) and regulating your intake accordingly. You can now see the importance of a knowledge of calories.”<sup>70</sup> Such promises were typical among Progressive Era food authorities. Cornell University physiologist Graham Lusk also pointed to the infallibility of calories in determining one’s weight:

It is *not at all difficult* to reduce the body weight. Suppose a clergyman or a physician requires 2500 calories daily in the accomplishment of his work and takes 2580 calories per day instead ... if this excess in food intake be continued for a year, the person will gain nine pounds and at the end of ten years ninety pounds.<sup>71</sup>

For Americans who previously felt powerless to change their bodies because they were unsure of the relationship between food consumption and body size, a knowledge of calories had the potential to imbue them with a newfound sense of control over their corporeal selves. Knowledge gleaned from nutrition and physiology, such as how many calories particular food items contained, and how many calories were necessary to maintain and lose weight, provided what the historian Lowe describes as “the requisite tools for building and implementing dieting habits.”<sup>72</sup> Dieting and calorie counting in particular could be empowering, which was a point that Peters and other health and beauty experts conveyed with dramatic metaphors. Antoinette Donnelly, another nationally syndicated newspaper columnist who advised readers on weight loss and

beauty, asserted: “Diet is the dictator, commander, [and] ruler of weight. You [are] the power behind the throne, however. Yours, the power to curb the dictator and direct him into a different course if his present course is spelling ruin to your figure.”<sup>73</sup>

This ostensible “power” to control one’s corporeal destiny, however, was also another means of disciplining the body and reinforcing adherence to a more rigid aesthetic ideal.<sup>74</sup> Although Peters highlighted the letters of “B.N.” and other satisfied practitioners of calorie counting, the precision of the calorie as expressed in individual units of energy could be both a curse and a blessing to dieters. Before the advent of the calorie, Americans who had “cheated” on their diets by eating more than they had intended could rather conveniently forget such peccadilloes and subsequently impute a failure to lose weight on circumstances independent of their actions and control. In the post-calorie Progressive Era, however, dieters who methodically logged their caloric intake—either in their minds or in a journal—had a record of their “cheating.” That record of every calorie consumed meant that if they failed to achieve desired weight loss, they could only fault themselves for lacking the willpower to abide by their calorie restriction programs. Calorie counting thus enabled an internalization of guilt by making it possible for dieters to know exactly how much they had violated their food restriction programs. Peters’s response to a dieter named “B.E.” who was flummoxed about why she was not losing weight, exemplified this: “[I]f you did not reduce on toast and lettuce it was for the simple reason that you must have had more calories than you needed even out of these simple foods.”<sup>75</sup>

The idea that the calorie was a neutral measure of food also favored the notion that one’s body size was determined by controllable behavior rather than ascribable to other considerations, such as any genetic predispositions to fat. For her part, Peters rejected “fat runs in the family” explanations, as she repeatedly expressed an unqualified faith in the triumph of self-discipline over genes in the fight against fat. Writing to Peters to seek encouragement after others had insisted on the futility of her dieting, a reader named “C.” related: “I am 18 years old and fat ... My Dad is built big and everyone tells me it will be useless to reduce.”<sup>76</sup> Peters delivered on the pep talk, promising the teenager that she could lose weight regardless of her genes, as long as she was willing to reduce her calorie intake: “Tell your friends it is all nonsense that you have inherited your fat. You can show them that after you follow the instructions which we have sent you.”<sup>77</sup> In her children’s companion to *Diet and Health with Key to the Calories*, Peters again dismissed any linkage between heredity and body weight, imputing corpulence entirely to the individual: “Your child is not fat, mother, because you are fat, or his father is fat, or someone else in the family is fat. Your child, if he is healthy, is fat because he eats too much. Just as you are, mother, if you are fat. Rough language. It’s true!”<sup>78</sup>

Building reliance and trust in expertise were hallmarks of Progressive Era projects, especially when it came to the professionalization of various occupations. Peters’s calorie-counting program likewise depended on expertise and trust from clients—in this case, dieters. Before the advent of the calorie, American dieters policed their food intake by restricting the amounts and types of foods that they consumed; the most punctilious dieters and diabetes patients might have even weighed food items.<sup>79</sup> But the emergence of the calorie revealed a new, hitherto invisible dimension to food.<sup>80</sup> Unlike discerning the amount, type, and weight of foods, a neophyte calorie counter would not have been able to determine the calorie content of foods simply by relying on the naked eye or placing food items on a scale. And since early twentieth-century calorie counters like Adelaide Hoag did not possess bomb calorimeters with

which to ascertain the caloric value of food items, they would have to trust Atwater's calorie computations and the reproductions of those computations in calorie guides like Peters's *Diet and Health with Key to the Calories*.

Calorie counting also reflected the progressive fixation on numbers, and not just the numbers on a bathroom scale; it was an example of what historians of science Theodore M. Porter and Dan Bouk have observed as the quantification of modern life.<sup>81</sup> And like other Progressive Era tools such as scientific management, calorie counting facilitated a new form of discipline and generated new expectations. It required dieters to reconstitute food as calories at a time when nutrition experts were also increasingly redefining food in terms of nutrients and vitamins.<sup>82</sup> Peters reinforced this reconstitution of food, as she reiterated that the calorie was more than just another unit of measurement; it was also an instrument with which to inform dieters' food choices and reconfigure how they imagined food. As Peters lectured in *Diet and Health with Key to the Calories*:

You should know and also use the word calorie as frequently, or more frequently, than you use the words foot, yard, quart, gallon, and so forth, as measures of length and liquids. *Hereafter you are going to eat calories of food.* Instead of saying one slice of bread, or a piece of pie, you will say 100 calories of bread, 350 calories of pie.<sup>83</sup>

In instructing calorie counters to consider pie to be *350 calories of pie*, Peters suggested that a particular food item's identity was incomplete without its calorie count. A slice of pie ceased to be a benign treat or an antidote to hunger; it was now larded with a potentially dangerous number of calories, causing dieters to agonize over whether such an indulgence might be "worth it."

Once Peters advised dieters to reimagine food as substances saturated with calories, she sought to establish the connection between calories and body fat. For those who might find their willpower seriously tested by calorically dense foods like dessert pies, Peters recommended envisaging those foods and calories transubstantiated into loathsome flab. A slice of pie was not just a triangular thing on a plate. Because of its calorie value, that slice of pie had the potential to sabotage what the historian Joan Jacobs Brumberg has called "the body project."<sup>84</sup> In a syndicated column in which she called for "candy control," Peters explained: "Candy is concentrated calories. By consuming an average of five Messrs. Chocolate Creams or 500 C's of any of the Candy family beyond his maintenance diet, Mortal Man attaches forty-five pounds of [fat] to his anatomy in a year's time. Candy forces [fat] to deposit [itself] where [it is] not wanted, where [it is] unlovely to the eye and a menace to Health."<sup>85</sup> Even more bluntly, Peters urged calorie counters with a weakness for sweets to visualize the treats fastening themselves onto the parts of their bodies that gave them the most insecurity: "When you see a pound of candy you would like, don't think of it as candy, but as a lump of tallow annexed out on to your fattest spot."<sup>86</sup>

Peters authorized occasional indulgences in high-calorie fare as long as dieters did not exceed their daily calorie allotments. But her approximations of the amount of high-fat foods one could eat relative to low-fat foods marked calorically dense foods as enemies to women's waistlines, and hence foods that should be consumed sparingly, if at all—reserved as a treat for special occasions or as a reward for meeting weight-loss goals.<sup>87</sup> The calorie doctor even called high-calorie items "forbidden foods," generally best expunged from one's thoughts and kept a distance from one's line of vision and vulnerable palate: "Don't allow your thoughts to dwell upon forbidden foods. Don't

look in candy or pastry windows, and don't 'taste.' The second taste is always harder to resist than the first.<sup>88</sup> Once "forbidden foods" came to signify high-calorie foods, and as Peters's calorie education campaign reached millions, the idea that those who frequently indulged in high-calorie fare were wholly responsible for their own corpulence, acquired more purchase.

Peters acknowledged that resisting "forbidden foods" and reducing calorie consumption could be challenging. For dieters like Adelaide Hoag who tried to reduce their caloric intake by more than 1,000 calories per day, Peters advised consuming extraordinarily low-calorie foods and assuaging growling stomachs with zero-calorie water. As a perennial dieter herself, Peters conceded that dieters slashing 1,000 calories from their daily diet "may be hungry at first," but she vowed that they would "soon become accustomed to the change."<sup>89</sup> "I find that dry lemon or orange peel, or those little aromatic breath sweeteners, just a tiny bit, seem to stop the hunger pangs; or you may have a cup of fat-free bouillon or half an apple, or other low calorie food," Peters shared with followers.<sup>90</sup> And instead of breakfasting on solid food, the calorie expert related that she "found that two cups of moderately hot water with the juice of a lemon answers just as well as the toast and watery coffee, and is probably better."<sup>91</sup>

Peters allowed, however, that even the most determined dieter might have her will-power challenged, in which case an occasional "debauch" would be permitted: "If there comes a time when you think you will die unless you have some chocolate creams, go on a c.c. [chocolate cream] debauch. I do, occasionally, and will eat as many as ten or so ..."<sup>92</sup> But one would still have to atone for such an indulgence. For Peters, that meant a dinner ration consisting of a "bowl of clear soup" (25 cal.) and just a single cracker (25 cal.).<sup>93</sup> In order to get the most out of that one cracker, Peters recommended "Fletcherizing."<sup>94</sup> The was the ritual of relentless chewing named after businessman Horace Fletcher (1849–1919), known colloquially as "The Great Masticator." As his nickname suggested, Fletcher was best known for his advocacy of chewing foods thoroughly—very, very thoroughly.<sup>95</sup>

Whether through Fletcherizing or other means, Peters reminded readers that losing weight might require enduring physical discomfort and headaches, especially in the early stages of one's diet program. Upon beginning a weight-loss regimen, dieters would have to shrink their "undoubtedly distended" stomachs by "fast[ing] for at least one day—drink[ing] nothing but pure water."<sup>96</sup> Such self-mortification, Peters conceded, could include excruciating hunger:

[Y]our stomach must be disciplined ... It will [Y] protest vociferously and will tell all its friends, the different organs of your body, how you are persecuting it, and they will join the league against you and decide they will oust you from your position, and you will feel like—but don't mind it; it will soon know that you mean business, and, much chastened and considerably contracted, will take the next day a very small amount of food very gratefully.<sup>97</sup>

The physical pain associated with low-calorie diets was not just limited to hunger pangs. When a reader wrote Peters to relate that she had suffered headaches upon starting a three-day, low-calorie liquid diet, Peters offered: You might take a slice of dry toast a quarter of an inch thick (50 C's) with one-quarter of a pat of butter (25 C's) on it. That little bit of solid food might stay the headache."<sup>98</sup> But if the seventy-five calories of bread and butter proved ineffective in alleviating the dieter's headache, that would

not give her license to eat more, as doing so would “break [her dieting] morale,” and one could “suffer a little headache rather than do that.”<sup>99</sup> If all else failed, and one’s calorie restriction program continued to be vanquished by hunger, headaches, and the presence of enticing foods, Peters proposed one last course of action—insulating oneself from the outside world and its calorie-laden enticements. In reply to “Mrs. C.,” who confessed that she had no more “willpower than a jellyfish,” as she “started a dozen times to diet, only to find [herself] eating,” Peters prescribed “go[ing] on the three-day liquid diet [where] you will get control of your appetite,” and “hav[ing] yourself locked up, if necessary, for these three days.”<sup>100</sup>

Peters’s dramatic and draconian language, such as recommending that dieters have themselves “locked up,” is notable given the political context of the 1910s and 1920s. Peters’s columns do not reveal her views on immigration and race relations, and there is no evidence of which this author is aware regarding her thoughts on such matters. But the language she used—including her description of body fat as a “menace”—recall the intensive nativism of the period. Many educated elites subscribed to eugenics, and Congress passed the Immigration Act of 1924—a law meant to severely restrict the immigration of Jews and Catholics from Eastern and Southern Europe. The 1910s and 1920s also saw intense racial violence, including lynchings of African Americans and other minority groups, as well as the resurgence of the Ku Klux Klan all across the country.<sup>101</sup>

This racial and ethnic context indirectly informed the popularity of calorie counting and the imperative of dieting among white women during this time. Just as the body was a marker of class, the body could also signal racial privilege. To be sure, in many instances one’s racial identity was readily apparent, but being thin was also about reinforcing racial and ethnic difference. Popular descriptions of working women—especially if they were African American or recent immigrants from Eastern and Southern Europe—tended toward “beefy,” “stocky,” and “rough,” in order to suggest that these women were de-feminized by physical labor and beset by innate aesthetic shortcomings.<sup>102</sup> The “look” that white women dieters were after—slender, feminine, and graceful—was the antithesis of such stereotypes about African American and immigrant women. To complete the notion that the thin white woman was superior in class and racial terms, her spare frame conveyed discipline in food consumption, and thus, moral superiority.<sup>103</sup> Notably, however, the Progressive Era penchant for regulation and restriction did not extend to the realm of commerce, as the Coolidge administration was particularly disinclined to regulate business and check corporate consolidation. (Ironically, the business-friendly Republican administrations of the 1920s contributed to the growth of agribusiness and to the beginnings of a modern industrial food system that food reformers today cite as a culprit in the making of the U.S. obesity epidemic.<sup>104</sup>)

Notably, there was one instance in which Peters’s dieting advice would seem to run counter to salient currents during the Progressive Era. When dieters’ willpower weakened to the point where an occasional indulgence transgressed into frequent binges of calorie-packed foods, Peters recommended disposing of those temptations that could undermine one’s diet. When “A.D.,” a calorie-counter with a sweet tooth, asked Peters how to resist her craving for candy, the advice columnist suggested eating “as small an amount [of candy] as you can,” then “giv[ing] the balance away or throw it away.”<sup>105</sup> “Don’t feel any compunction about throwing it away if you cannot give it away. It seems terrible to think of throwing away food but you do worse than throw it away if you eat it when you don’t need it,” Peters added.<sup>106</sup> On the surface, this advice

violated Progressive reformers' lectures against food waste, and their exhortation to utilize all edible components of food; several years earlier, the U.S. Food Administration had similarly admonished against food waste as unpatriotic.<sup>107</sup> To Peters, enticing foods like candy could undermine the project of disciplining the body, but to the progressive and wartime food authorities, avoiding waste was part and parcel of a disciplined program of food purchasing and consumption.

This apparent point of contention could be reconciled, however. Ultimately, both progressive reformers and Peters considered candy superfluous—Peters declared candy off limits because it was potentially fattening, and reformers objected to it on the basis that it had little to offer nutritionally and therefore should not be purchased in the first place.<sup>108</sup> Perhaps more importantly, Peters and Progressive reformers shared a broader aversion to overeating. Reformers—health authorities in this instance—objected to overeating precisely on the grounds of preventing waste and inefficiency. Overeating constituted a “wasteful expenditure” of food, generated an excess of toxic waste products, and compelled the body to perform extra work digesting food, according to physicians and physiologists writing from the beginning of the twentieth century to the 1920s.<sup>109</sup> As Yale physiologist Russell Chittenden asked rhetorically in 1903, “why load up the system with unnecessary material, thereby interfering with the free running of the machinery?”<sup>110</sup> Progressive Era health authorities also admonished that “excessive nourishment” would cause digestive organs to be “overloaded” with processing extra food—the “unexhausted, partly digestive, fermenting mass”—into waste products.<sup>111</sup> One Chicago doctor's declaration in 1907 that “it is self-evident that the smallest amount of food will serve to keep the body in a state of high efficiency,” certainly would have complemented Peter's gospel of calorie counting roughly a decade later.<sup>112</sup>

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Like many Progressive Era food commentators such as home economists, physiologists, and physicians who championed discipline and rationality above all else in food consumption and purchasing, Lulu Hunt Peters's promotion of calorie counting in the late 1910s and 1920s failed to fully appreciate the pleasures of eating.<sup>113</sup> Peters's program was not able to overcome the reality that American women—even those who desperately wished to be thin—derived sublime pleasure from food, and that sometimes the body craved rich, calorie-laden food that defied the rational mind's instructions to maintain discipline and be content with water and a few squeezes of lemon. More broadly, Progressive Era reformers' promises of deliverance from ignorance, inefficiency, and lack of self-control, and their attempts to rationalize different dimensions of life—whether in the form of scientific management on the factory floor, home economics in the housewife's kitchen, or calorie counting in the dieter's food journal—resulted in Americans being subjected to additional disciplinary regimes.<sup>114</sup> This becomes clearer when one considers Peters's suggestions for ways that calorie-counters could maintain bodily discipline: eating low-calorie foods, drinking large quantities of water, Fletcherizing, tossing out “forbidden foods,” enduring ravenous hunger and headaches, having oneself locked up, and plastering images of exemplars of thinness all around one's home to shame oneself into submission. But as much as American women of the 1920s wanted to be thin, fashionable, and modern, many did not follow through with Peters's directive that their “stomach must be disciplined.” Whether due to hunger, frustration, or other reasons, Adelaide Hoag seemed to have had enough of calorie counting when she stopped recording her caloric intake after only two weeks.

## Notes

- 1 The title of this article derives from historian Joan Jacobs Brumberg's 1997 book, *The Body Project: An Intimate History of American Girls* (New York: Random House, 1997).
- 2 Lulu Hunt Peters, *Diet and Health with Key to the Calories* (Chicago: The Reilly and Lee Company, 1918), reader entry in "Weekly Weight Chart," unpaginated. This particular copy of *Diet and Health* was obtained from the Northwestern University library system in 2006. Adelaide Hoag bequeathed her copy of *Diet and Health* to the Archibald Church Library of Northwestern University in Nov. 1930. An inscription on the back cover of the book read, *Merry Christmas, Adelaide, Junius*. (Junius was Hoag's husband.)
- 3 Peters outlined her "rule to find ideal weight": "Multiply number of inches over 5 ft. in height by 5 ½; add 110." Hoag, however, calculated her ideal weight incorrectly. She yielded 20.5 rather than 22 when multiplying 4 x 5½. See Peters, *Diet and Health*, 11.
- 4 Ibid.
- 5 Peters, *Diet and Health* (Northwestern copy). Weight chart is unpaginated.
- 6 Hillel Schwartz, *Never Satisfied: A Cultural History of Diets, Fantasies, and Fat* (New York: Free Press, 1986), 175; Chin Jou, "Counting Calories," *Chemical Heritage* 29:1 (Spring 2011), <http://www.chemheritage.org/discover/media/magazine/articles/29-1-counting-calories.aspx?page=1> (accessed Jan. 20, 2016); "Los Angeles Physician Writes 'Best-Seller,'" *Los Angeles Times*, June 11, 1922, II3; Carole Sugarman, "The History of Thinking Thin," *Washington Post*, June 16, 1987, A1; Lulu Hunt Peters, *Diet and Health with Key to the Calories* (Chicago: Reilly and Lee Co., 1929), inside cover. This book may have sold particularly well for the following reasons: (1) it contained a very comprehensive list of the caloric values of specified amounts of commonly consumed foods (127 foods from every food group); (2) it instructed readers how many calories they should consume based on gender and level of physical activity; (3) it provided tables for readers to keep track of their weight loss.
- 7 "Dietary Discoveries Better Human Health," *New York Times*, Mar. 10, 1929, 158.
- 8 Lydia J. Roberts, *Nutrition Work with Children* (Chicago: University of Chicago Press, 1927), 55; Jou, "Counting Calories."
- 9 Lulu Hunt Peters, *Diet for Children (and Adults) and The K calorie Kids* (New York: Dodd, Mead and Company, 1924), 177. "Dorothy" did not indicate her height, so it is not known whether her weight did indeed exceed Peters's weight-height strictures.
- 10 Ibid.
- 11 Peters, "Diet and Health," *Los Angeles Times*, June 24, 1922, II7. Although "B.N." did not report her height, she noted to Peters that "[b]y your way of figuring I should be 135," which meant that she was approximately 5 feet 4 ½ inches.
- 12 Ibid. "B.N." wrote that she "tr[ie]d] to keep to 1000 Cs. a day."
- 13 Peters did, however, instruct readers to try to maintain a balanced diet replete with fruit and vegetables, carbohydrates, protein, and even fat, but only after they achieved their goal weight. Even so, those with a propensity to gain weight would have to count calories for the remainder of their lives. See Peters, *Diet and Health*, 38–39, 94; Peters, *Diet for Children (and Adults) and the K calorie Kids*, chap. 8.
- 14 "Reducing" is in quotations because the term was a synonym for "dieting" during this period.
- 15 E. V. (Elmer Verner) McCollum, *A History of Nutrition: The Sequence of Ideas in Nutrition Investigations* (Boston: Houghton Mifflin, 1957), 127–28, 150; W. O. (Wilbur Olin) Atwater, "The Potential Energy of Food," *The Century* 34:3 (July 1887): 401.
- 16 McCollum, *A History of Nutrition*, 204. For more on Pettenkofer and Voit's studies, see also Elise M. Widdowson, "The First Fifty Years," *Nutrition in the 20th Century*, ed. Myron Winick (New York: John Wiley and Sons, 1984).
- 17 Jou, "Counting Calories."
- 18 Ibid.; Nick Cullather, "The Foreign Policy of the Calorie," *The American Historical Review* 112:2 (Apr. 2007): 346.
- 19 W. O. Atwater, *Principles of Nutrition and Nutritive Value of Food, United States Department of Agriculture Farmer's Bulletin* (Washington, DC: Government Printing Office, 1902), 44.
- 20 W. O. Atwater, "The Inadequately Nourished," undated paper, film 4, reel 8, Wilbur Olin Atwater Papers, 1872–1914 ("Additional Papers, 1869–1914"), Van Pelt Library, University of Pennsylvania, Philadelphia (reproduced as microfilm from Wilbur Olin Atwater Papers, Wesleyan University, Middletown, CT).

- 21 Cullather, "The Foreign Policy of the Calorie," 338.
- 22 Ibid., 348; Jou, "Counting Calories."
- 23 "Food and Nutrition in the Depression Period," *Journal of the American Medical Association* (Jan. 2, 1932): 50; A. Hendee (artist), "Eat Less, and Let Us Be Thankful That We Have Enough to Share with Those Who Fight for Freedom (Chicago: A. Hendee Edwards & Deutsch Litho. Co., 1918), photograph, retrieved from the Library of Congress. <https://www.loc.gov/item/2002711984/> (accessed Sept. 4, 2017)."
- 24 Cullather, 348; Jou, "Counting Calories."
- 25 Helen Zoe Veit, *Modern Food, Moral Food: Self-Control, Science, and the Rise of Modern American Eating in the Early Twentieth Century* (Chapel Hill: University of North Carolina Press, 2013).
- 26 For more on the history of home economists, see Carolyn Goldstein, *Creating Consumers: Home Economists in Twentieth-Century America* (Chapel Hill: University of North Carolina Press, 2012); *Rethinking Home Economics: Women and the History of a Profession*, eds. Sarah Stage and Virginia B. Vincenti (Ithaca, NY: Cornell University Press, 1997); Laura Shapiro, *Perfection Salad: Women and Cooking at the Turn of the Century* (New York: Farrar, Strauss and Giroux, 1986); Veit, *Modern Food, Moral Food*; Bileteoff, *Eating Right in America: The Cultural Politics of Food and Health* (Durham, NC: Duke University Press, 2013).
- 27 Chin Jou, "Make America's (Foodways) Great Again: Nostalgia, Early Twentieth Century Dietary Critiques, and the Specter of Obesity in Contemporary Food Commentary," *Gastronomica: The Journal of Critical Food Studies* 17:1 (2017): 23.
- 28 Lowe maintains that African American students at Spelman College, for example, were more focused on skin care and hair-grooming rituals rather than preoccupied with weight loss. Lowe also notes that "nineteenth-century connections between robust bodies, fat, health, and prosperity that had faded for middle-class white Americans by the 1920s remained potent symbols for African Americans still on the economic margin." Margaret A. Lowe, *Looking Good: College Women and Body Image, 1875–1930* (Baltimore: Johns Hopkins University Press, 2003), 150–51.
- 29 See Lowe, *Looking Good*; Brumberg, *The Body Project*; Robert Seid, *Never Too Thin: Why Women Are at War with Their Bodies* (New York: Prentice Hall Press, 1989); Paula S. Fass, *The Damned and the Beautiful: American Youth in the 1920's* (New York: Oxford University Press, 1977); Harvey A. Levenstein, *Revolution at the Table: The Transformation of the American Diet* (New York: Oxford University Press, 1988), 166. A creation of the prominent artist Charles Dana Gibson, the image of the Gibson Girl appeared in advertisements and books, and even on ashtrays, matchboxes, teacups, saucers, tiles, wallpapers, pillow covers, and numerous other household items. For more on the cultural significance of the Gibson Girl, see Michael Tavel Clarke, *These Days of Large Things: The Culture of Size in America, 1865–1930* (Ann Arbor: University of Michigan Press, 2007), 184.
- 30 Annie Dewey, "Methods of Organization and Control in Institutional Departments. Menu and Meal Systems: A New Plan," *Journal of Home Economics* (Nov. 1910): 521, American Association of Family and Consumer Sciences Collection, No. 6578, Box 508, Division of Rare and Manuscript Collections, Carl A. Kroch Library, Cornell University, Ithaca, NY. One could argue, of course, that waiters did not enjoy serving women for other reasons, and that women patrons allegedly tipped less than men because they had lower incomes or depended on allowances from men in their households.
- 31 T. R. Pirtle, *History of the Dairy Industry* (Chicago: Mojonner Bros. Company, 1926), 133. Pirtle reports that some Boston employers sought to prevent fatigue and fainting spells from starvation by encouraging their employees to drink milk during mid-day. Implementing this practice apparently "reduce[d] the time lost through employee sickness."
- 32 For more on American workers feigning fatigue or illness in order to evade work, see Robin D. G. Kelley, *Race Rebels: Culture, Politics, and the Black Working Class* (New York: Free Press, 1996).
- 33 "'Boyish Figure' Aim Brings Health Test," *New York Times*, Feb. 22, 1926, 3.
- 34 Roberts, *Nutrition Work with Children*, 291.
- 35 Lowe, *Looking Good*, 144. Lowe points out that a decline in food costs could have also contributed to the reduced food expenditures, but that the Smith College campus warden suspected students' dieting to be a significant factor. It should also be noted that while Smith students eschewed potatoes in favor of low-calorie vegetables, they did not always abide by their food restriction programs. Lowe is careful to point out that they (and their counterparts at Cornell University, another one of Lowe's case studies) occasionally "stuffed themselves at campus spreads and in downtown restaurants; they skipped meals and snacked between them; and they indulged in cakes, fudge, and other sweets." See Lowe, *Looking Good*, 140. But

when they did violate their diets, Smith students were racked with guilt, primarily because food indulgences could result in weight gain and make them appear weak willed.

36 Ibid., 143. The letter to the editor, titled, "To Diet or Not to Die Yet?" was published in the Oct. 29, 1924, issue of the *Smith College Weekly*. The authors did not sign their names, only their class graduation years.

37 For more on the history of scales, see Sander L. Gilman, *Fat Boys: A Slim Book* (Lincoln: University of Nebraska Press, 2004), 89; Amanda M. Czerniawski, "From Average to Ideal: The Evolution of the Height and Weight Table in the United States, 1836–1943," *Social Science History* 31:2 (Summer 2007): 273; John Kercher, "Obesity," *Illinois Medical Journal* 40 (July 1921): 19; Ann F. La Berge, "How the Ideology of Low Fat Conquered America," *Journal of the History of Medicine and Allied Sciences* 63:2 (Apr. 2008): 141.

38 "Fat Women Busy Reducing; Thin Ones Adding Weight," *New York Times*, July 16, 1925, X10.

39 Ibid.

40 See Margaret A. Lowe, "From Robust Appetites to Calorie Counting: The Emergence of Dieting Among Smith College Students in the 1920s," *Women and Health in America*, ed. Judith Walzer Leavitt (Madison: University of Wisconsin Press, 1999), 175; Czerniawski, 280. For more on the history of height and weight tables, see Emma Seifrit Weigley, "Average? Ideal? Desirable? A Brief Overview of Height-Weight Tables in the United States," *Journal of the American Dietetic Association* 84:4 (1984): 417–23.

41 Richard Osborn Cummings, *The American and His Food* (New York: Arno Press, 1970), 161. It was not that middle-aged and older women refrained from dieting; they frequently did. A 1925 *New York Times* article quoted a dance instructor as saying, "I'm just swamped with middle-aged classes. They'll go through anything to reduce and call for more." See *Fat Women Busy Reducing; Thin Ones Adding Weight*, X10. But despite their weight-loss efforts, older women were generally heavier than their younger counterparts, according to surveys commissioned by life insurance companies.

42 See "Women Cut Weight to Suit Fashions," *New York Times*, May 25, 1915, 6; Valerie Steele, *Fashion and Eroticism: Ideals of Feminine Beauty from the Victorian Era to the Jazz Age* (New York: Oxford University Press, 1985), 241.

43 Joan Jacobs Brumberg, *Fasting Girls: The History of Anorexia Nervosa* (New York: Vintage, 2000), 182.

44 Jou, "Counting Calories."

45 Birgitte Søland, *Becoming Modern: Young Women and the Reconstruction of Womanhood in the 1920s* (Princeton, NJ: Princeton University Press, 2000), 51.

46 Lucrezia Bori, "How You May Reduce Your Hips by a Few Simple Daily Exercises," *Washington Post*, Aug. 26, 1921, 4.

47 Soland, 55.

48 Ibid., 51, 55.

49 "This Too Solid Flesh," *New York Times*, Feb. 25, 1926, 22.

50 See Kerry Segrave, *Obesity in America, 1850–1939: A History of Social Attitudes and Treatment* (Jefferson, NC: McFarland and Company, 2008), 117; "Fat Women Hopeless, Says Poiret," *Ogden (UT) Standard Examiner*, Jan. 13, 1923, 6.

51 See, for example, Stuart Ewen and Elizabeth Ewen, *Channels of Desire: Mass Images and the Shaping of American Consciousness* (New York: McGraw-Hill, 1982), 117.

52 Jou, "Counting Calories." For more on how "slenderness symbolizes the freedom from want," see Claire Cassidy, "The Good Body: When Big Is Better," *Medical Anthropology* 13:3 (1991), 203. For more on the transformation in food production during this period, see Jou, "Make America's (Foodways) Great Again: Nostalgia, Early Twentieth-Century Dietary Critiques, and the Specter of Obesity in Contemporary Food Commentary," *Gastronomica: The Journal of Critical Food Studies* 17:1 (Spring 2017): 22.

53 In his discussion of "civilized restraints," Stearns cites the German sociologist Norbert Elias's *The Civilizing Process* (1939). See Peter N. Stearns, *Fat History: Bodies and Beauty in the Modern West* (New York: New York University Press, 1997), 249.

54 Ibid.

55 Caroline Walker Bynum, *Holy Feast and Holy Fast: The Religious Significance of Food to Medieval Women* (Berkeley: University of California Press, 1987); R. Marie Griffith, *Born Again Bodies: Flesh and Spirit in American Christianity* (Berkeley: University of California Press, 2004).

56 Veit, *Modern Food, Moral Food*, 159, 4.

57 Susan Faludi, *Backlash The Undeclared War Against Women* (New York: Crown, 1991).

- 58 Naomi Wolf, *The Beauty Myth: How Images of Beauty Are Used Against Women* (New York: Chatto and Windus, 1990).
- 59 Liz Frost, *Young Women and the Body: A Feminist Sociology* (Basingstoke, UK: Palgrave Macmillan, 2001), 176.
- 60 Ibid.
- 61 Warren Belasco, *Food: The Key Concepts* (Oxford, UK: Berg, 2008), 2.
- 62 Adelaide Hoag was married to Dr. Junius Clarkson Hoag. The couple's address can be found on page 126 of a directory of the Chicago Woman's Club, 1917–1918. See *Chicago Woman's Club* (no publication information), [https://books.google.com/books?id=\\_XsqAAAAYAAJ&tpg=PA126&ots=qYHiBc7Vah&dq=junius%20adelaide%20hoag&pg=PP1#v=onepage&q=junius%20adelaide%20hoag&f=false](https://books.google.com/books?id=_XsqAAAAYAAJ&tpg=PA126&ots=qYHiBc7Vah&dq=junius%20adelaide%20hoag&pg=PP1#v=onepage&q=junius%20adelaide%20hoag&f=false) (accessed Sept. 4, 2017). Junius Hoag's tenure as president of the Chicago Medical Society can be found here: "Current and Past Presidents of the Chicago Medical Society, 1850–Present," Chicago Medical Society, <http://www.cmsdocs.org/about-us/history/current-and-past-presidents-of-the-chicago-medical-society-1850-present> (accessed Sept. 4, 2017).
- 63 See, for example, Peters, *Los Angeles Times*, Apr. 7, 1923, II9; Aug. 19, 1922, II7.
- 64 For an example of how historians have explained the "crisis of masculinity," see Michael A. Messner, *Out of Play: Critical Essays on Gender and Sport* (Albany: State University of New York Press, 2007), 35.
- 65 Ibid.
- 66 Refer to Veit, *Modern Food, Moral Food*, and Biltkeoff, *Eating Right in America*, for more context on progressive food reformers.
- 67 Peters, *Diet for Children (and Adults) and The Kalorie Kids*, 57.
- 68 Jou, "Counting Calories."
- 69 Peters, "Diet and Health," *Los Angeles Times*, Mar. 31, 1923, 11; Peters, *Diet and Health*, 88. Peters did not initially caution readers that weight loss would vary depending on dieters' initial weight, or that their weight loss might eventually plateau. By the 1920s, however, she *would* note the latter phenomenon in her syndicated column.
- 70 Ibid., 28–29.
- 71 Graham Lusk, *Food in War Time* (Philadelphia: W. B. Saunders Company, 1918), 39. Added emphasis.
- 72 Lowe, "From Robust Appetites to Calorie Counting: The Emergence of Dieting among Smith College Students in the 1920s," 183.
- 73 Antoinette Donnelly, *How to Reduce, New Waistlines for Old* (New York: D. Appelton, 1920), 28. Besides Donnelly, there were a number of other newspaper columnists who wrote on beauty. One of the better-known columnists was Lina Cavalieri, an Italian opera singer whose byline in the *Washington Post* read, "Mme. Lina Cavalieri, the most famous living beauty." See Segrave, *Obesity in America, 1850–1939*, 53.
- 74 This idea derives from Michel Foucault's theoretical perspectives on power and disciplinary regimes, as well as other scholars' interrogations on the making of the sex binary, gender, and sexual norms. See Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Pantheon, 1978); Thomas Laqueur, *Making Sex: Body and Gender from the Greeks to Freud* (Cambridge, MA: Harvard University Press, 1992); Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (New York: Routledge, 1990); Michel Foucault, *The History of Sexuality*, 3 vols., trans. Robert Hurley (New York: Pantheon, 1978–86).
- 75 Peters, "Diet and Health," *Los Angeles Times*, Jan. 24, 1923, II8.
- 76 Peters, "Diet and Health," *Los Angeles Times*, Mar. 31, 1923, II11.
- 77 Ibid.
- 78 Peters, *Diet for Children (and Adults) and The Kalorie Kids*, 172.
- 79 For more on the history of diabetics weighing their food, see Schwartz, *Never Satisfied*, 172–73.
- 80 One could argue that in modern America, scientific discoveries that could not be seen by the naked eye (e.g., calories and bacteria) came to be accepted as real entities. For more on how the discovery of microbes changed American life, see Nancy Tomes, *Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, MA: Harvard University Press, 1998).
- 81 See Porter, *Trust in Numbers*; Bouk, *How Our Days Became Numbered*.
- 82 Rima Apple, *Vitamins in American Culture* (New Brunswick, NJ: Rutgers University Press, 1996).
- 83 Peters, *Diet and Health*, 24; Jou, "Counting Calories." Added emphasis.
- 84 See Brumberg, *The Body Project*.

- 85 Peters, "Diet and Health," *Los Angeles Times*, Nov. 29, 1922, II8.
- 86 Peters, "Diet and Health," *Los Angeles Times*, Mar. 23, 1923, II8.
- 87 According to Peters's calorie-counting gospel, if one were to indulge in high calorie foods on a special occasion, one would have to atone for such a dietary lapse by severely restricting caloric intake on subsequent days. Peters informed readers of her column that she was not going to deny herself a Thanksgiving buffet consisting of "turkey with chestnut dressing, rich gravy with the giblets minced in it, candied sweet potatoes and mashed Irish, a bunch of celery, a big dish of boiled onions with cream gravy, some baked squash, a dish of corn, some cranberry sauce, hot biscuits, salad, pumpkin and mince pie, and finally some nuts, raisins, candy and fruit." The day following her Thanksgiving profligacy, however, Peters intended to place herself on a virtual starvation diet: "Then tomorrow I shall go on a low calorie day, not over 600 calories of liquids or fruit—skimmed milk (1 glass, 80 C's)[.] consommé (fat free, 2 cups, 50 C's). And in this manner I shall free myself of the excess bird I put on today." See Peters, "Diet and Health," *Los Angeles Times*, Nov. 30, 1922, II8.
- 88 Peters, "Diet and Health," *Los Angeles Times*, Mar. 23, 1923, II8.
- 89 Peters, *Diet and Health with Key to the Calories*, 1918 ed., 84.
- 90 Ibid.
- 91 Ibid., 89.
- 92 Ibid., 94.
- 93 Ibid.
- 94 Ibid., 92.
- 95 While Fletcherizing is characterized here as the chewing of food far beyond what would be adequate for digestion, Fletcher himself maintained that slow and prolific mastication was essential to "healthy" digestion. See Horace Fletcher, *The A. B.-Z. of Our Own Nutrition* (New York: Frederick A. Stokes Company, 1903), 19–20.
- 96 Peters, *Diet and Health with Key to the Calories*, 1918 ed., 81.
- 97 Ibid.
- 98 Peters, "Diet and Health," *Los Angeles Times*, Apr. 12, 1923, II8.
- 99 Ibid.
- 100 Ibid., Mar. 8, 1923, II8.
- 101 For more on the resurgence of the Ku Klux Klan in the early twentieth century, see Nancy MacLean, *Behind the Mask of Chivalry: The Making of the Second Ku Klux Klan* (New York: Oxford University Press, 1994).
- 102 See Seid, *Never Too Thin*, 91. Margaret A. Lowe similarly relates that, "when postwar depictions of working class, immigrant, or African American women surfaced in student literary magazines or the college newspaper, they were indeed described as having 'sturdy' or 'hearty' constitutions." See Lowe, *Looking Good*, 147. It should be pointed out, however, that this notion that labor marred the looks of working-class women from the "Old World," existed before the 1920s. In 1881, George Beard, the physician best known for his delineation of the "disease of civilization," neurasthenia, asserted: "Among the middle and lower orders of the old world, beauty is kept down by labor. A woman who works all day in the field is not likely to be very handsome, nor to be the mother of handsome daughters; for, while mental and intellectual activity in the middle age heightens beauty[,] muscular toil, out-doors or in-doors, destroys it." See George M. Beard, *American Nervousness, Its Causes and Consequences; A Supplement to Nervous Exhaustion (Neurasthenia)* (New York: G. P. Putnam's Sons, 1881), 67. For more on advertisements featuring representations of aristocratic femininity, see Roland Marchand, *Advertising the American Dream: Making the Way for Modernity, 1920–1940* (Berkeley: University of California Press, 1985), 181–84.
- 103 For more on Progressive Era confections of food consumption habits with morality, see Veit, *Modern Food, Moral Food*, and Biltkoff, *Eating Right in America*.
- 104 See Jou, "Make America's (Foodways) Great Again."
- 105 Peters, "Diet and Health," *Los Angeles Times*, Jan. 13, 1923, II7.
- 106 Ibid.
- 107 See Deborah I. Levine, "The Curious History of the Calorie in U.S. Foreign Policy: A Tradition of Unfulfilled Promises," *American Journal of Preventive Medicine* 52:1 (2017): 125–29; Biltkoff, *Eating Right in America*; Veit, *Modern Food, Moral Food*.
- 108 Several years earlier, the U.S. Food Administration, of course, had discouraged Americans from eating candy because its primary ingredient—sugar—needed to be conserved to feed soldiers.

**109** See W. F. Morrison, “The Harmfulness of Over Eating,” *Providence Medical Journal* 5 (1904): 174; Lawrence Litchfield, “The Importance of Weight Control in the Maintenance of Health and in the Management of Disease,” *The Pennsylvania Medical Journal* 25:10 (July 1922): 676; Russell Chittenden, “Physiological Economy in Nutrition” in Fletcher, *The A. B.-Z. of Our Own Nutrition*, 80; George F. Butler, “Overeating and Its Influence on Longevity,” *Medical Exam and Practice* 16 (1906): 202.

**110** Chittenden, “Physiological Economy in Nutrition,” 80.

**111** Morrison, 178; Litchfield, 676; Owen, “Food—What It Is, and What It Should Be,” *International Clinics* 2 (1912): 61.

**112** Ralph W. Webster, “Metabolic Aspects of Overfeeding and of Underfeeding,” *American Medicine* (New Series) 2:6 (June 1907): 354; see also Russell H. Chittenden, *The Nutrition of Man* (New York: Frederick A. Stokes Co., 1907), 158, for the articulation of a similar viewpoint.

**113** See Veit, *Modern Food, Moral Food*, 4, for a characterization of Progressive Era nutrition authorities’ predilection for “downplaying the pleasure of eating—and even renouncing pleasure altogether in some cases ...”

**114** Again, see Foucault, *Discipline and Punish*, for the theoretical basis of this claim. For more on how technology and scientific innovation failed to emancipate women from household tasks, see Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983).