

**The Aliment of Anxiety:
Nutritional Advice Pertaining to Sugar
in Post-WWII Canada**

by

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Submitted in partial fulfillment of the requirements
for the degree of Master of Arts

at

Dalhousie University
Halifax, NS
August 2014

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Abstract

This thesis traces changes in dietary recommendations regarding sugar from WWII to the 1970s, considering the ways advice was shaped, disseminated, and digested as it related to three competing but interconnected factors: the emergence of the Canadian state as a nutrition authority, food industry involvement in nutrition education, and affective dimensions of food selection during a turbulent period of Canada's social and political history. It shows how nutrition experts were sometimes fettered and sometimes abetted by their relationship to science and the state. It demonstrates that, despite nutrition advertisers' focus on economics and science in framing their advice, non-rational, non-nutritive food selection motivators persisted, and may have been especially potent in the Cold War age of anxiety. By examining the place of a beloved but nutritionally ambiguous food such as sugar in dietary advice, this thesis reveals the ideological underpinnings of such advice, and illuminates nutrition experts' changing concerns.

Acknowledgements

I am deeply indebted to Shirley Tillotson for her guidance. Shirley, despite all the missed deadlines, rabbit hole excavations, intemperate adjectives and instances of alliteration over accuracy, you never seemed to falter in your belief that I was a capable student. Whatever its mysterious origins, your faith in me has been even more valuable than your encyclopedic knowledge of Everything. This thesis has been difficult, a breech baby. You allowed me the space to proceed in my own, occasionally backwards, way, and now that I am done, I am grateful. Thank you for knowing exactly how and when to challenge me, and for recognizing when I needed help. You are so good at what you do, and you are an absolutely delightful human being. Thank you. I am honoured to be your student.

Todd McCallum and Jerry Bannister kindly served as my second and third readers. Thank you both for your patience, encouragement, and humour. Your interest in this project and the attendant quality of your observations, comments and criticisms added much more nuance, texture and dimension to this thesis than it would have had otherwise. Thank you.

Two years ago, Colin Mitchell ushered me into this program and now Justin Roberts is finally letting me out. Thank you both for your excellent work as Graduate Coordinators.

From my first correspondence with the History Department as part of the application process, Valerie Peck has been an invaluable source of assistance, information, and comfort. She and Tina Jones are incredible individuals who have both facilitated and enriched my experience immeasurably. Thank you both for everything you do.

Mama i Tata, I can never adequately thank you for your unflinching support of my somewhat impractical academic ventures. I am incredibly privileged to have your generous financial support in pursuing post-secondary education. Even more generously, you have always trusted me enough to let me pursue it on my own terms, valuing my education over my marks. It was not important to you that I become anything other than myself through my studies. As such, you have never pressured me toward any particular avenues, allowing me instead to indulge my interests. For this, I shall be infinitely grateful (if perpetually unemployed.)

Years ago, Peter Petro expressed the kind of quiet confidence in my intellectual abilities I had only ever seen from my parents (whose biological bias toward me makes them an unreliable source of information regarding my intelligence, beauty, or singing ability). Dr. Petro, I cannot tell you what it meant to have a relative stranger express such kind words as if they were matters of fact. Remembering the confidence you had in me has carried me through when I did not have any in myself. Thank you.

I am eternally grateful for the existence of one Michael Hatton. Michael, your feedback, encouragement and friendship have been precious, and your willingness to assist me with all sorts of practical matters probably made the difference between completion and failure. Somehow you always managed to magically manifest and provide invaluable support at critical moments. I'm not sure where you found the time to write your own thesis. From the bottom of my heart, thank you.

For their love and support throughout various stages of this process, from its incubation many moons ago, to this messy afterbirth, I thank Jovana and Jelena Golubovic, Mira Kremonic, Alec and Henry Lee, Emma Charles, DAS, Megan Cameron, Nick Crampton, Raf, Claudine Bonner, Sarah Kasupski, Alex Fenton, Stuart Coote, my Phrat Boiz and my Warrior Goddesses, the good people of El Salvador, and the staff at Uncommon Grounds.

Chapter 1: Introduction

Earlier this year, the World Health Organization revised its stance on sugar consumption, halving its 2002 recommended daily intake to no more than 5% of total calories. While sugar has never enjoyed a sterling reputation, concern about its physiological and psychological effects has been steadily mounting since the Second World War. Once considered delightfully benign by most mainstream nutritionists, who, prior to the Second World War, recommended sweet food as an appropriate means of rounding out the diet, sugar was by the 1970s depicted as addictive and damaging even by those well inside of the fringes. And yet, it retained a place in Canadians' diets throughout the post-war period, and, in numerous forms, continues to make up an appreciable percentage of our national caloric intake today.

This thesis examines the change over time in nutritional advice regarding sugar consumption while tracing the emergence of the federal Canadian state as an authority on nutrition. It identifies the strategies employed by public nutritionists, why they were chosen, and how they were limited. Hundreds of millions of North Americans continued to enjoy sugar despite its souring reputation, and this thesis also looks at some of the affective aspects of food selection to explain why. It demonstrates that, despite the economical, scientific paradigm applied to food throughout most of the twentieth century, non-rational and non-nutritive food selection motivators persisted, and may have been especially potent in an age of anxiety. Looking at the place of a beloved but non-nutritive and potentially dangerous food such as sugar in national nutritional advice is useful in illuminating the changing concerns of public nutrition experts and the ways in which they were both fettered and abetted by their relationship to the state. Chapter Two identifies the individuals and organizations that steered nutritional policy in Canada from the war until the 1970s and describes the challenges they faced, both political and practical. Chapter Three focuses on sugar as a case study and tracks the change over time in advice regarding its consumption. It considers advice from government, voluntary organizations, industry and insurance companies, and links growing concern about sugar consumption to an emerging concern about the effects of modernity on Canadian bodies. Chapter Four details the interaction of industry and science, focusing on the ways industry research groups such as the Sugar Research Foundation and the Nutrition Foundation responded to criticism and endeavored

to contribute to the shape of nutritional advice. The ways that discussions around sugar were staged during these politically and socially turbulent years in Canada suggests that anxiety about the future was one powerful driver of the consumption of this nutritionally void but symbolically loaded food that conjured up comforting nostalgia and a sense of continuity with the best parts of the past. Therefore Chapter Five is concerned with the affective dimensions of dietary advice and looks at the ways in which discussions and advice about food and menus generally, and sugar especially, were also ideological discussions about gender relations, morality and self-control, liberty, and modernity.

Recent Literature

Food history in Canada is a small but varied and rapidly expanding field. For the purposes of this thesis, this review will highlight contributions to food history as they relate to the state, to science and technology, and to gender. Several studies of public nutrition and the Canadian state exist. Aleck Ostry has taken an institution-centered look at the formulation of nutrition policy in Canada up to the Second World War and demonstrated how, prior to the post-war expansion of social programs, the federal government viewed nutritional science primarily as a means of manipulating and regulating relief payments.¹ Historical work on health and nutrition has identified some of the ways in which seemingly objective, scientific data have been manipulated to serve ideological goals. Ian Mosby has wrestled extensively with Canada's Food Rules and looks to the role of "scientists, doctors, and other nutrition experts in reproducing... gender, class and racial ideologies at the level of basic nutritional science."² His work on Canada's Food Rules, a set of dietary recommendations that debuted in 1942, demonstrates how they were "part of larger efforts by leading Canadian nutrition experts to advance their own particular political and professional interests by defining healthy eating in a way that prioritized a certain vision of the wartime labour, military and agricultural needs of the nation."³ Mosby notes that the Food Rules closely mirrored Canada's agricultural interests and that they "actively pathologized eating habits that did not fit its specific Anglo-European cultural parameters," noting that cuisines that did not rely heavily on dairy, such as Asian and Aboriginal, were

¹ Aleck Samuel Ostry, *Nutrition Policy In Canada, 1870-1939* (Vancouver: University of British Columbia Press, 2007).

² Ian Mosby, "Making and Breaking Canada's Food Rules: Science, the State, and the Government of Nutrition," in *Edible Histories, Cultural Politics: Towards a Canadian Food History* ed. F. Iacovetta, V. Korinek and M. Epp (Toronto: University of Toronto Press 2012), 409.

³ *Ibid.*, 410.

particularly stigmatized.⁴ Similarly, Caroline Durand's look at Quebec school nutrition textbooks from 1900-1960 demonstrates how these technical texts promoted a particular brand of French Catholic nationalism and encouraged students to remain in Quebec to preserve and reproduce that culture.⁵

Other food studies foreground science and technology and their relationship to culture. Janet Lohmann and Ashima K. Kant studied the effects of revisions to the U.S. Food Pyramid on food advertising in several magazines in the 1990s as one way of assessing the interaction between health science and popular culture, but found that the revisions had little bearing on the types of foods advertised in women's magazines during this time.⁶ Steven Penfold and Sidney Mintz both discuss technology as culture in the context of a food. Mintz's classic *Sweetness and Power* illuminates the ways that sugar, as a commodity and as a food, powered the industrial revolution and capitalism, and facilitated new ways of working and eating. Mintz holds that the increased consumption of such goods was a "consequence of deep alterations in the lives of working people, which made new forms of foods and eating conceivable and 'natural,' like new schedules of work, new sorts of labour, and new conditions of daily life."⁷ This refers to increasing urbanization and industrialization, the adjustment of eating schedules to accommodate working hours, the normalization of eating away from home, and the more frequent inclusion of prepared foods and sugar.⁸ Once sugar's price had fallen enough to put it within the reach of the British working class (a result of improvements in production technology, the adoption of freer trade policies, and the legacies of an economic system dependent on enslaved and cheap labour), convenient, calorie-rich, and palatable sugar presented itself as an ideal component of the working class diet.⁹ Similarly, in his look at the Great Canadian Donut, Penfold asserts that the rise of the iconic Canadian donut shop was inextricably linked to suburbanization, car culture, and a post-war appreciation for the liberating potential of technology. While previously, consumers were not meant to be privy to the processes of production, when the

⁴ *Ibid.*, 421-2.

⁵ Caroline Durand, "Rational Meals for the Traditional Family: Nutrition in Quebec School Manuals, 1900-1960" in *Edible Histories, Cultural Politics: Towards a Canadian Food History* ed. F. Iacovetta, V. Korinek and M. Epp, 109-130. (Toronto: University of Toronto Press, 2012).

⁶ Janet Lohman and Ashima K. Kant, "Effect of the Food Guide Pyramid on Food Advertising" *Journal of Nutrition Education* 30:1 (1998) 23-28.

⁷ Sidney Mintz, *Sweetness and Power: the place of sugar in modern history* (New York: Penguin Books, 1985), 181.

⁸ *Ibid.*

⁹ *Ibid.*

grand mechanical assembly line of donut production was revealed for consumers in donut shop storefronts, it became part of the draw of this classic Canadian, but modernized, snack, so different from the “mis-shapen and grease soaked” donuts Mother used to make.¹⁰ Harvey Levenstein describes similar phenomena in *Paradox of Plenty*, when he recounts that many North American restaurants in the 1950s proudly displayed their canned soup selections, and “customers could watch their choices being opened and heated.”¹¹ He also describes Tad’s 30 Varieties, a restaurant chain which served frozen meals heated up at tableside microwave ovens.¹²

Some studies articulate a connection between science, technology and gender in discussions of the arrival of shiny appliances in post-war kitchens. Durand indicates that by the late fifties, the authors of Quebec school texts were “herald[ing] the value of the latest developments in modern domestic science. Hence, they glorified the ‘intellectual joys’ that resulted from being able to apply the principles of anatomy, physics, chemistry and hygiene to meal preparation.”¹³ The material I have examined similarly embraces a scientific vocabulary to suggest to women that they need not look outside of the home to satisfy their intellects and to live meaningful lives in the modern age. Historians since R.S. Cowan have challenged the contention that the post-war deluge of labour-saving home appliances facilitated female emancipation by freeing up women’s time. Jessamyn Neuhaus, for example, identifies new demands that were piled on top of the obligation to serve palatable food.¹⁴ As labour-saving devices and processed foods moved into the kitchen, so too did a new barrage of concerns, whether they be nutrition content or aesthetic appeal, so that the time and effort cooks put into meals remained fairly level.

Not all post-war Canadian kitchens were bastions of modernity. Folklorist Diane Tye, who traces how the production of oatcakes, cookies and pies was part of the construction of her mother’s identity as a pastor’s wife in post-war Atlantic Canada, describes the same time period in much quainter terms as she rifles through her mother’s

¹⁰ Steve Penfold, *The Donut: A Canadian History* (Toronto: University of Toronto Press, 2008), 37, 29

¹¹ Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (Oakland: University of California Press, 1994), 129.

¹² *Ibid.*, 128.

¹³ Durand, “Rational Meals,” 117.

¹⁴ Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology, from the Open Hearth to the Microwave* (New York: Basic Books, 1983); Jessamyn Neuhaus, “The Way to a Man’s Heart: Gender Roles, Domestic Ideology, and Cookbooks in the 1950s,” *Journal of Social History* 32,3 (1999) 529-555.

recipe cards.¹⁵ Wendy Woloson's look at the gendering of sugar similarly focuses on the symbolic power of refined sugar and its association with femininity. The link between sugar and femininity was forged during the industrial revolution, when men often consumed the majority of the family's meat supply while women and children relied on cheap sugar to make up the caloric deficit. This materiality is articulated by Mintz, who stated that in industrial society, "everybody eats more sugar, but women and children eat relatively more than adult men; everybody gets some meat, but adult men get disproportionately more than women and children."¹⁶ Amy Bentley, in her account of wartime rationing in the U.S., alludes to studies of working class families and nonindustrial societies which confirmed "that in households with limited resources, [where] a large portion of the family's meat/protein supply goes to the father... women and children consume other foods, especially sugar, to make up the caloric difference."¹⁷ Tye has also commented on the "long cultural association of women with sweet foods or tastes and on working-class conventions that afforded men more than their equal share of the family's meat supply, such that women often made up for it with an increased consumption of sugar."¹⁸ She claims that by the twentieth century, this pattern had established sweet food as "appropriate for women."¹⁹ In somewhat more figurative terms, Wendy Woloson has outlined the symbolic conflation of the saccharine with the feminine over the nineteenth century. She suggests that as an expensive rarity, sugar prior to the nineteenth century had signified "male economic prowess."²⁰ Its association with femininity solidified as its price dropped:

only when refined sugar started losing its position as a status object did its properties come to mesh psychologically with nineteenth-century ideologies regarding the feminine sphere. Democratized to the point of insipidness, confectionary became increasingly linked to and discussed in terms of genteel feminine lives -- ornamental, inessential, ephemeral, and easily dismissed.²¹

¹⁵ Diane Tye, *Baking as Biography: A Life Story in Recipes* (Montreal: McGill-Queens Press, 2010).

¹⁶ Mintz, 145.

¹⁷ Amy Bentley, *Eating for Victory: Food Rationing and the Politics of Domesticity* (Chicago: University of Illinois Press, 1998), 89.

¹⁸ Tye, 124.

¹⁹ *Ibid.*

²⁰ Wendy Woloson, *Refined Tastes: Sugar, Confectionary and Consumers in Nineteenth Century America* (Baltimore: Johns Hopkins University Press, 2002), 3.

²¹ *Ibid.*, 224.

Defining Sugar

By the 1940s, white sugar had emerged as a distinct category, one that is the focus of this inquiry. The language in this thesis does not explicitly distinguish between refined and naturally occurring sugars, because the term ‘refined sugar’ did not appear in the vernacular of the nutritionists of this time period. However, the question of whether table sugar was qualitatively different from the naturally occurring sugars in plant and dairy foods was debated in the post-war period. Figures like Dr. John Yudkin, who lambasted sugar, insisted that isolated sucrose was processed differently in the body than the sugar which occurred naturally in foods, while other figures and the sugar industry maintained that the sugar in the bowl was no different than the sugar in bananas or milk.²² Most nutritionists occupied the space between as they awaited scientific evidence to confirm either stance. The term ‘concentrated sweets’ seems to have been the most common means of signaling difference between these foods and the sugars that occurred in plant and dairy foods, but use of the term ‘refined’ was rare during the period in question, and is therefore used rarely in the chapters that follow.

Etymology aside, this thesis is concerned with common, refined, white table sugar as distinct, both symbolically and chemically, from sweeteners like molasses and honey, or naturally occurring sugars in foods. In the nineteenth and early twentieth century, white sugar was distinguished from less processed brown sugar and molasses primarily on the basis of class and status rather than chemical or nutritional composition.²³ Tye indicates that by the late nineteenth century, brown sugar and molasses had become “the sole

²² We now know that there are some differences in the way different sugars are metabolized by the body. Today, scientists are actively debating whether sucrose induces fatty liver disease or is otherwise harmful to the liver, but this was not a discussion in the post-war decades. The information that follows is for the reader’s interest only: While honey is composed primarily of glucose and fructose, the molecules exist primarily as free monosaccharides rather than as the disaccharide sucrose. This is true to a lesser extent for molasses. In order to be absorbed by the body, sucrose must be broken down into glucose and fructose. The enzyme for this function, sucrase, is not present in the stomach, but is released by the liver when sucrose reaches the small intestine. This frees the glucose, making it available for absorption, while the fructose undergoes further chemical processes to be converted into useable glucose. Honeybees add the enzyme sucrase to the sucrose-rich nectar they harvest for honey production, ‘pre-digesting’ it and resulting in honey’s low levels of sucrose and subsequently different metabolic pathway. See Jenifer T. Kappico, Asuka Suzuki, and Naboko Hongu, “Is Honey the Same as Sugar?” University of Arizona College of Agricultural and Life Sciences, Cooperative Extension (September 2008) cals.arizona.edu/pubs/health/az1577.pdf.

²³ Harvey Levenstein, *Revolution at the Table: The Transformation of the American Diet*, (Oxford: Oxford University Press, 1988); Mintz, *Sweetness and Power*; Tye, *Baking as Biography*; Woloson, *Refined Tastes*.

property of the less sophisticated – the rural or working class – as new methods of refining sugar brought down the price of white sugar,” while Levenstein recounts the efforts of nineteenth-century sugar refiners to denigrate brown sugar by portraying it as unsanitary.²⁴ By the twentieth century, white sugar dominated well-to-do kitchens.²⁵ Tye recalls that, when baking for guests in the 1950s and 1960s, her mother always used white sugar, while everyday goodies for the family were more often made with cheaper brown sugar, or molasses.²⁶

Geography also mattered in conceptualizing different sweeteners. Nestled in their corner of the Trade Triangle, Atlantic Canadians received plenty of rum, sugar and molasses from the Caribbean. Molasses is a much beloved food in Atlantic Canada, where, according to Tye, most people ate it daily during the nineteenth and early twentieth centuries.²⁷ Tye has looked at the place of molasses in Atlantic Canadian identity and suggested that, despite its connection to hardship and poverty, the ubiquity of molasses in Atlantic memory makes it culturally valuable. She writes that “to remember molasses was a badge of identity” which would distinguish, for example “a ‘real’ Newfoundlander.”²⁸ This strong tie to regional and cultural identity may have made molasses impervious to criticism in the minds of those who depended on it, and probably made Atlantic Canadians suspicious of, if not down-right offended by, any federal advice against its consumption. The same can probably be said of proud maple syrup guzzlers in Quebec’s *cabanes à sucre* and Ontario’s sugar shacks.

The documents I have looked at indicate that until about the 1960s, most nutritionists did not distinguish between white sugar and brown sugar, molasses, honey, or syrup in their advice. These sweeteners are treated as a coherent category until the late 1960s, when a distinction similar to the one established in the nineteenth century began to emerge once again, but this time, it was based on nutritional grounds. Nutritionists and non-experts started to perceive and depict honey, molasses and brown sugar as (slightly) healthier, thus inverting the sweetness hierarchy to position white sugar, once praised for its purity, firmly at the bottom rung of dietetic desirability.

²⁴ Tye, *Baking as Biography*, 64; Levenstein, *Revolution at the Table*, 33.

²⁵ Levenstein, *Revolution at the Table*, 33.

²⁶ Tye, *Baking as Biography*, 114.

²⁷ Tye, *Baking as Biography*, 62.

²⁸ Diane Tye, “A Poor Man’s Meal: Molasses in Atlantic Canada,” *Food, Culture and Society*, 11, 3 (September 2008), 337.

Chemically speaking, there are many different kinds of sugars, made from combinations of the three monosaccharide sugars, glucose, fructose and galactose. For example, lactose, the sugar that appears in dairy foods, which some people have difficulty digesting, is a disaccharide composed of glucose and galactose. This thesis deals with sucrose, or table sugar, which is a disaccharide composed of glucose and fructose. Both white sugar and brown sugar, which is slightly less processed, are composed of sucrose. Honey and molasses are chemically similar to table sugar, however, while table sugar is a chemical isolate, both honey and molasses contain additional elements, resulting in a more robust nutritional profile. Health food enthusiasts venerated crude black molasses in the 1940s – 1960s for its iron content. It also provides some calcium and magnesium. Honey is a complex food that contains many different sugars as well as enzymes, acids, and trace minerals.

In various places throughout this thesis, I refer to sugar's lack of nutritional value. Sugar does provide energy, which can be considered a nutrient, because it is necessary for the proper functioning of the body. Sugar is a carbohydrate, which is a macronutrient, along with fat and protein. Carbohydrates are an essential source of fuel for the body because they are the most easily converted into energy, and all the tissues and cells of the body utilize glucose. However, fat and protein also provide energy, so calorie delivery is not an exclusive function of carbohydrates. Carbohydrates perform other functions in the body related to the nervous and digestive systems, just as fats are required for metabolizing certain vitamins, maintaining cell membranes, cushioning organs and regulating inflammation, while proteins are essential for growth, tissue repair, and the production of hormones and enzymes. Sucrose performs no such other functions apart from providing energy. Significantly, alcohol also provides energy, more calories per gram than sugar, in fact, but is not considered a nutrient. Therefore, conflating energy and nutrition is not always useful when assessing the nutritional worth of a substance. For the purposes of this thesis, the terms nutritious and nutrient will be reserved for those foods that perform essential functions in the body apart and aside from endowing it with energy. Nutritionists in the post-war period, informed by what Levenstein terms the Newer Nutrition, recognized and articulated this distinction in their own way by categorizing foods as either 'protective' (milk, meat, eggs, fruits, vegetables) or 'energy' (sweets, fats, and refined carbohydrates) foods.²⁹ The term 'empty

²⁹ Levenstein, *Paradox of Plenty*. Levenstein describes the shift in the way people conceptualized food following the 'discovery' of calories and macronutrients in the 1870s as the New Nutrition, and the

calorie' was used by Canadian nutritionists by the 1960s, and it is this emptiness that I echo when I refer to sugar as being nutritionally void.

While many nineteenth and early twentieth meanings of sugar related to comfort and desire endured, sugar eventually came to stand for something quite different in post-war North America, where for the first time, amid plenty, sugar's caloric quality became a physiological and moral liability rather than a boon. However, there is little sugar-specific literature in the historiography of the post-war period. I have explored sugar because of its controversial nutritional worth, its link to (im)morality and pleasure, and because of its ambiguous place in idealized, prescribed Canadian diets. Sugar exists at the intersection of nature and civilization, wholesome goodness and unthinkable evil, feminine daintiness and masculine economic power. It is as banal as 'one lump or two?' and as charged as the question of colonialism and slavery, the problem of environmental degradation and the temptation of vast personal and national fortunes. As such, it has always been bittersweet: sugar boycotts were advocated by those like abolitionist William Fox as a means of reducing the perceived need for slave labour.³⁰ Yet many consumers were not willing to go without. In *Refined Tastes*, Wendy Woloson includes an excerpt from a 1788 poem by William Cowper, 'In Pity for Poor Africans,' which illustrates this conflict: "I pity them greatly, but I must be mum, / For how could we do without sugar and rum? / Especially sugar, so needful we see; / What, give up our desserts, our coffee and tea!"³¹ Woloson relates that advertisers in the nineteenth century often "blotted out the unpalatable" by obscuring or erasing sugar's association with slavery.³² But the connection between sweetness and bitter working conditions was enduring. Long after the formal abolition of slavery on British plantations in the 1830s, Warren Belasco recounts how the manager of a health food store in 1968 discouraged sugar consumption, not because of its questionable nutritional profile, but in response to "the sordid role of U.S. refineries in Cuba since the turn of the century."³³ Sugar's connections to coerced labour, economic degradation, and modernity have given it a

beginning of an application of a scientific, measurable paradigm to food. He terms the Newer Nutrition as the period following the discovery of vitamins and other "protective factors" in the 1920s. The identification of these dietary factors and their effects on the body helped curb deficiency diseases like scurvy, pellagra, and rickets, and resulted in the categorization of foods into good and bad, where previously a calorie was a calorie.

³⁰ Woloson, *Refined Tastes*, 24.

³¹ *Ibid.*, 25.

³² *Ibid.*, 3.

³³ Warren Belasco, *Appetite For Change: How the Counterculture Took On the Food Industry* (Ithaca, New York: Cornell University Press, 2007), 16.

meaning which is morally ambiguous, and thus a challenge for policy makers eager to preserve both the health and the happiness of their flock.

Even while nutritionists advised Canadians to go easy on sugar for the sake of their teeth or their waistlines, many of the menu plans they devised included sugary desserts, and it was not until the 1970s that concern about hidden sugars began to appear. Fat and red meat were also suspected of contributing to chronic disease, but these foods contained important nutrients. On the other hand, sugar contained only calories, so it is surprising that its use was not more strongly proscribed. I suspect this was because sugar, while having no nutritional benefits, was credited with some pleasing psychological ones. Despite idealistic discourses about scientific or optimal eating, pleasure was important enough that it merited inclusion on a complete menu. Simon Cohn, in his dissection of dietary advice to diabetics, provides useful insight to the symbolic significance of sweets. He writes:

these special foods are defined not solely by their sweetness but in combination with their place in people's diets as extras: not satisfying hunger so much as providing sensual pleasure at certain times in daily routines. This reward dimension is fully incorporated into the rhythms of their lives, supplying markers between periods of labour, such as mid-morning breaks or afternoon snacks. That it is precisely these which are banned is interpreted as belief-affirming; treats always were seen as transgressions from labour, and the medical advice derived from the diabetes merely confirms their status.³⁴

For this reason, mainstream nutritionists during this period urged the public to control its intake of sugar, rather than to eliminate it completely. In Canada by the 1950s, after many nutritionists had indeed begun to worry about sugar consumption, particularly among children, recipes containing sugar kept rolling out. A 1957 government publication, *Foods For The Family*, included recipes for Rolled Oat Batter Pudding, Cinnamon Rolls, Ice Cream and Sauce, Angel Bread Pudding with Whipped Jelly Sauce, and the like.³⁵ Sugar may not have been good for bodies, but it clearly was considered good enough for hearts and minds.

³⁴ Simon Cohn, "Being Told What To Eat: Conversations in a Diabetes Day Center" in *Food, Health and Identity*, ed. P. Caplan (London: Psychology Press, 1997), 204.

³⁵ Canada, Department of Agriculture, *Foods for the Family* (Ottawa: 1957), Library and Archives Canada (hereafter LAC), Health League of Canada (hereafter HLC) fonds, MG28 I332, volume 126, "Conferences" series, file 3, "Nutrition. Pamphlets Canada Department of Agriculture. 1940-1960, 1980."

Theoretical Contexts

In the years that followed the Second World War, many Canadians had good reason to believe that science and technology would bring about improvements in life for all. The 1950s especially are remembered as a time of public trust in, and deference to, expertise. As such, this thesis engages with a many of the assumptions of high modernist ideology, which according to James C. Scott is:

best conceived as a strong, one might even say muscle-bound, version of the self confidence about scientific and technical progress, the expansion of production, the growing satisfaction of human needs, the mastery of nature (including human nature), and, above all, the rational design of social order commensurate with the scientific understanding of natural laws.³⁶

Scott stipulates that high modernism should not be confused with the practice of science, that it was instead “a faith that borrowed... the legitimacy of science and technology” and was, “accordingly, uncritical, unskeptical, and thus unscientifically optimistic about the possibilities for the comprehensive planning of human settlement and production.”³⁷ The term high modernism is usually applied when discussing mega-projects “backed by the authority of reason and the latest technologies, designed at a distance and implemented without sufficient attention to local conditions,” such as, to provide Canadian examples, the construction of massive hydro dams in British Columbia, the Saint Lawrence Seaway and Power Project, or the razing of Africville.³⁸ The term can also be applied when discussing postwar attempts to regulate Canadians’ diets, because these attempts also depended on science and expertise to order human experience, and were equally blind to particular local cultural, geographic or economic conditions. The state’s deployment of nutrition and home economics experts, dissemination of nutritional material, and emphasis on education signaled to citizens that they were incapable of feeding themselves without the help of expert knowledge. Population-wide dietary advice promoted monolithic health standards,

³⁶ James C. Scott, *Seeing Like A State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998), 4.

³⁷ *Ibid.*

³⁸ P. Whitney Lackenbauer and Matthew Farish, “The Cold War on Canadian Soil: Militarizing a Northern Environment”, *Environmental History* 12 (2007), 920-950; Tina Loo, “People in the Way: Modernity, Environment and Society on the Arrow Lakes” *BC Studies* 142/143 (2004), 161-196; Daniel MacFarlane, “Rapid Changes: Canada and the Saint Lawrence Seaway and Power Project,” paper based on author’s doctoral dissertation, “To the Heart of the Continent: Canada and the Negotiation of the St. Lawrence Seaway and Power Project, 1921-1945.” PhD Dissertation, University of Ottawa, 2010; Tina Loo, “Africville and the Dynamics of State Power in Postwar Canada,” *Acadiensis* [Online] 39, 2 (2010).

excessive faith in education, and a homogenizing impulse. Scott pegs the “high tide” of high modernism just before World War I, although others, including several historians of Canada, have claimed the late 1950s and early 1960s represented its heyday.³⁹ This thesis subscribes to the later designation, and suggests, insofar as Canadian nutrition policy is concerned, that the period covered by this thesis spans the apex and witnesses the decay of this ideology.

As a foodstuff that is pure in its chemical composition, which offers fuel without nourishment, refined sugar itself represents a scientific and technological triumph. But if our primatological taste for sweetness has evolved to help us select useful food, - i.e., the ripest fruit, which is high not only in sugar but in nutrient content – then it is ironic that in refining it, processing it, distilling and civilizing it, we have robbed sweetness of its original purpose – to signal nutritious food.⁴⁰ Sugar is arguably the food of modernity. The products we consume, including foods, have the power to change the way we see ourselves and our relationship to the world around us. Up until the mid-nineteenth century, sugar was an expensive rarity only enjoyed primarily by nobles. Mintz indicates that the rise of sugar happened concurrently with a major shift in thought. He demonstrates that “tobacco, sugar and tea were the first objects within capitalism that conveyed with their uses the complex idea that we could become different by consuming differently,” by inaugurating a “transformation from a hierarchical, status-based, medieval society to a social-democratic, capitalist and industrialist society.”⁴¹ This occurred as English economists shifted away from a mercantilist model of static markets, in which “lowering prices would only lower profits” and in which rigid status stratifications held that the poor “would not and should not adopt rich affectation, even if they could afford to,” for it signified moral disorder.⁴² Through the working-class consumption of once-elite colonial products like sugar, tea and coffee, the distinctly capitalist idea emerged that the desire of the labouring classes to “emulate their rulers” should be harnessed, as it expressed in their greater productivity a “readiness... to work harder in order to be able to earn – and thus consume – more.”⁴³

³⁹Loo, “People in the Way,” Mathew Farish and P. Whitney Lackenbauer, “The Cold War on Canadian Soil,” and in “High Modernism in the Arctic: Planning Frobisher Bay and Inuvik,” *Journal of Historical Geography* (July 2009), 517-544.

⁴⁰ Mintz, *Sweetness and Power*.

⁴¹ Mintz, *Sweetness and Power*, 185.

⁴² *Ibid.*, 162-3.

⁴³ *Ibid.*, 180.

This emphasis on consumption endured and was especially powerful during the Cold War. Valerie Korinek reminds us that while “in hindsight, we know that this era would inaugurate nearly thirty years of economic prosperity for Canadians, at the time... people continued to fear the re-emergence of the recession and depression, which had marked the end of the First World War and traumatized the country throughout the thirties.”⁴⁴ As such, Joy Parr indicates that ‘consumer’ in the 1950s indicated autonomy, plenty, and compliance.⁴⁵ Parr suggests it was seen as essential that consumerism thrive, because every blow to the housewife’s pocket was a step closer to economic depression, which would inevitably lead to war, and the next one would be nuclear.⁴⁶ Consumption was seen as necessary to maintain a fragile peace, uniquely important in the atomic age.⁴⁷

Nutrition and the State in Canada

This thesis spans the Second World War and the three decades that followed, a period that witnessed the reconfiguration of the state and its relationship to the self, when the boundaries between the private and the public blurred like never before, when the personal was declared political. At the same time, the ideological requirements of the Cold War necessitated that in Canada, a comfortable margin remain perceptible between the state and private life. The area of post-war Canadian food and nutrition policy is a rich place to explore these wavering boundaries because it speaks to the negotiation of a welfare state in the context of a polarized political climate, the politicization of domesticity, and the interaction of objective, all-encompassing, public science with the particularities of private, non-rational personal choices. My thesis looks at the strengths and limitations of state-sponsored nutritional advice in a time of great political and social change through the lens of sugar, that most enticing and frivolous of foods.

Historians of moral regulation have noted that with the decline of traditional sources of social control – namely, religion – in the twentieth century as many Western societies moved toward more liberal forms of governance, the mechanisms for moral regulation shifted from external to internal. Even as the modern bureaucratic state

⁴⁴ Valerie J. Korinek, *Roughing It In The Suburbs: Reading Chatelaine Magazine in the Fifties and Sixties*, (Toronto: University of Toronto Press, 2000), 5.

⁴⁵ Joy Parr, *Domestic Goods: the Material, the Moral and the Economic in the Postwar Years* (Toronto: University of Toronto Press, 1999), 4.

⁴⁶ *Ibid.*, 93.

⁴⁷ *Ibid.*, 96.

overtook the church, the family, or the monarch as the primary authority in people's lives, its federal-liberal constitution resulted in a diffusion of authority. The shift toward a multiplicity of authorities necessitates subjects capable of discerning and navigating between various authorities. Alan Hunt calls upon Zygmunt Bauman to discuss this "shift from moral regulation of conduct through legislative activity of social institutions to a contemporary situation in which there is a 'pluralism of authorities' which require individuals to take responsibility and make choices for their own 'self-constitution.'"⁴⁸

In post-WWII Canada, the expansion of social services in some ways reasserted the state as an arbiter of social control, contributing to Cold War political tensions. The Canadian government's entry into the previously private realm of bodily care had to be carefully calibrated so as to not overstep the blurry boundaries into the territory of totalitarianism. In order to address these tensions, the federal state embraced regulatory practices that were qualitatively different from the prohibitive legislative measures, such as municipal and provincial alcohol bans, that had briefly marked the interwar period. Such strong-armed social control was unacceptable in a modern liberal democracy such as post-WWII Canada, where moral regulation now depended on the production of subjects capable of governing themselves. To achieve these ends, in the realm of nutrition, the Canadian state endeavoured to establish itself as the most legitimate of this plurality of authorities. The heavy emphasis on an educational or lifestyle paradigm in nutrition work, rather than a restrictive or redistributive one, was a function of the modern liberal state's desire to stimulate "the active engagement of individuals in projects of self-governance."⁴⁹ However, this does not mean the state simply sat back passively. As Michel Foucault has famously indicated, the work of self-governance and the governance of others are always interconnected.⁵⁰ The introduction of state-subsidized medical care in the 1950s and 60s instated a new social contract, wherein the state took on more responsibility for bodies, and in return was entitled to a commensurate increase in control over those bodies. If the state was to provide care to bodies, then in some ways, articulating its own definitions of good

⁴⁸ Alan Hunt, *Governing Morals: A Social History of Moral Regulation* (Cambridge: Cambridge University Press, 1999), 3-4.

⁴⁹ *Ibid.*, 4.

⁵⁰ Michel Foucault, *The Government of Self and Others: Lectures at the College de France, 1982-1983* (London: Picador, 2011).

health became its prerogative. However, it was the responsibility of the individual citizen to meet these standards.

Encouraged by the League of Nations to develop a federal nutrition committee in the 1930s, Canada had initially insisted that nutrition was a provincial concern. The federal Canadian Council on Nutrition (CCN) was formed in 1938, but nutrition was not taken seriously as a national concern until a crisis was perceived. The CCN had conducted dietary surveys in four Canadian cities, and the results, published between 1939 and 1941, revealed widespread malnutrition among many Canadians, not just the poor.⁵¹ Prior to the formation of the CCN and its Nutrition Services branch, voluntary organizations such as the Red Cross performed the majority of in nutrition work in Canada. Other voices chiming in to the conversation included food industries and insurance companies. These actors may have been influenced by profit motives, but all embraced a scientific vocabulary to communicate their messages. This project assesses the harmony and discord among these differing voices with differing resources, motivations, and limitations, and in doing so illuminates the complexity and challenges of formulating population-wide nutritional advice at a time when the science itself was uncertain and anxiety around food was mounting.

The recognition of non-nutritive factors in eating increased throughout the 1960s in tandem with anxiety about the future. Fears that family meals were becoming a thing of the past and that chaotic feeding patterns could have detrimental psychological effects on children represented a (slow) shift away from imagining the body as a machine. The body as machine metaphor, born of the scientific revolution and persisting to a lesser degree today, is not only physical, but also ideological. Durand, in her study of Quebec home economics textbooks from 1900-1960, writes that the pervasiveness of the human body as machine metaphor:

helped promote the concept of the body as an instrument of production that every individual had the power to improve or even perfect to obtain maximum performance. It was through rational and reasonable choices that everyone could achieve this ideal. Furthermore, an individual's relationship to his or her body was not only rationalized by science, but compared to, and integrated into, the liberal industrial and capitalist economic model. This conception of the body assumed that individuals took responsibility for their health, which was a daily priority, and that their food choices were always rational. It neglected the importance of factors such

⁵¹ Mosby, "Making and Breaking," 411.

as social and economic status, working conditions, and environment, just as it overestimated the role of health arguments in food choice.⁵²

Sources Consulted

This thesis draws heavily on Canadian materials, particularly in the second chapter, where the establishment of the state as a nutritional authority is discussed. However, much of the rhetoric surrounding sugar, both scientific and popular, is representative of a wider North American context. Canadians and Americans shared concerns about the diseases of affluence that bloomed on both sides of the border after the Second World War, and neither the findings of nutritional science nor popular publications respected the 49th parallel. While Canadians and Americans had their own institutions and occasionally differed on policies regarding food and health, pertinent developments in nutritional science would not be ignored if they came from the wrong side of the border.⁵³ Indeed, Canada benefited from the relative abundance of American nutrition research. Further, organizations like the Sugar Research Foundation acted internationally, sponsoring research in both Canada and the U.S. and overseas. So while I have endeavored to emphasize Canadian examples wherever possible and relevant, the international nature of both science work and mass media necessitates situating the Canadian case within a wider context.

Canada in 1975 looked much different than it did in 1945, and in many ways, the time span covered by this thesis might more accurately be considered as two periods, 1945-1965 and 1965-1975. Around 1965, a shift in both tone and content took place: nutritional advice became somewhat more urgent as it became apparent that the nutritional problems ushered in by modern living (such as heart disease, diabetes, and obesity) were impervious to modernist solutions of top-down planning and technical education. Still, in other ways, the periodization of 1945-1975 is useful, because the shift described above was subtle. Projects like the consolidation of state authority in nutrition and bodily care were ongoing, and the sense of hope that burned so brightly at the end of the war was not entirely extinguished by 1965. However, ten years later, the faith in scientific and technological

⁵² Durand, "Rational Meals," 120-1.

⁵³ Thalidomide presents a particularly tragic example of differing U.S./Canadian regulatory health policies. Other, more minor and more relevant differences existed. Both countries banned cyclamate in the 1960s, though in Canada that ban was later overturned. Saccharine is forbidden in Canada to this day, but is acceptable in the U.S., where cyclamate is still banned.

progress, reverence for experts, and unbridled optimism that had marked the beginning of this period had lessened significantly.

This thesis examines government documents and correspondence, and the notes and minutes of the federal Canadian Council on Nutrition and Nutrition Services; the files of voluntary organizations including the Canadian Home Economics Association, the Health League of Canada and the Canadian Dietetic Association, and the newspaper clippings they collected which illustrate their range of concerns; industry periodicals such as *The International Sugar Journal*; academic nutrition journal articles; and nutrition pamphlets and cookbooklets published by voluntary organizations, the federal government, industry, and insurance companies. Because health and nutrition are managed provincially, I have also consulted the public health reports of Nova Scotia. I have analyzed a combination of industrial, scientific, governmental and popular texts and attempted to map out where they touch, and how they inform each other.

This thesis would have benefited from interviews to ascertain, where prescriptive texts cannot, the extent to which dietary advice was followed and the meaning of sugar in individual lives. Alas, that is another project in itself, and it was not possible to add that element to a thesis of this scope and size. However, I hope that with the variety of sources I have consulted, I have been able to faithfully depict the shimmering, multifaceted image of sugar with its ever-changing meanings. Although I cannot claim with any certainty to what degree advice that prescribed or, later, proscribed sugar was heeded, the fact that we are consuming more sugar than ever, and are at the same time more concerned about sugar than ever, speaks to the dizzying range of responses to dietary advice. As Neuhaus has demonstrated, the fact that prescriptive texts assert so strongly that things should be a certain way can illuminate the ways in which they are not. Letters written to Nutrition Services inquiring about sugar's healthfulness, as well as the sheer volume and variety of sugar-related opining, especially in the 1970s, with the publication of John Yudkin's *Pure, White and Deadly* and William Dufty's *Sugar Blues*, indicate that there was not one singular opinion on this food. Indeed, there are several places in this thesis where conflict is evident between individuals and the institutions they represent, as demonstrated though more personal, informal documents such as correspondences. These places of friction are valuable, because they illuminate the illusory nature of institutional consensus in regards to nutrition. My intention has been to navigate this sea of voices, figure out where different

snatches of song were coming from, and how they interacted. When I began this project, I thought it might be a great way to sort out my own muddled opinion of sugar. Now, as it draws to a close, I am more befuddled than ever, having seen how unscientific ‘science’ can be, how a category as basic as ‘health’ can mean different things to different actors, and how much knowledge and nuance risks being lost when complex nutritional science is distilled for a lay population, especially one that must contend with a barrage of differing opinions.

Conclusion

Eating is an intensely personal act and yet is also regulated by forces beyond the individual’s control – market availability, international trade, seasonality, income, weather events. Eating connects the atomic self to the wider world – as such it is simultaneously a highly socialized ritual and a deeply personal act. Food policy lives at the border between that which is public and that which is private, and thus was a contentious issue during the time period in question, when the Cold War was simmering and the welfare state was forming. Although today Canadians take a certain level of state interference for granted, sixty years ago, the notion that the state should be telling its citizens what to eat was rather novel. This thesis looks at the ways government agents tried to negotiate the space between the personal and the public by emphasizing scientific eating and nutrition education to preserve the place of both pleasure and free will. But where government organs tried to refrain from taking a stance on specific foodstuffs until they had an adequate measure of scientific certainty, less scrupulous actors were free to chime in.

I have tried to remain detached as to whether sugar is ‘bad’ or ‘good’, and concern myself primarily with the mechanisms of consensus formation and information delivery. How did nutritional advice come together, and who got to decide what was good for you? How did a scientific understanding of food and the body meet the nutritional education requirements of a population, and in what ways did it fall short? What does it mean for the state to tell you what to eat? Patricia Crotty has criticized the medicalizing premise of population-wide dietary recommendations because it implies that an entire population is already sick and in need of professional care.⁵⁴ Simon Cohn warns that such a conception is problematic because it places the individual “not only under the gaze of biomedicine, but

⁵⁴ Patricia Crotty, *Good Nutrition? Fact and Fashion in Dietary Advice* (Crow’s Nest, Australia: Allen and Unwin).

also within its moral framework.”⁵⁵ To exist within this framework is to have moral judgments passed on the ways in which you care (or do not care) for your own body. This thesis will address how a medicalized understanding of nutrition, which classified foods as healthy and unhealthy, and emphasized personal choice and lifestyle as vehicles to good health, can result in gendered and moralistic assessments of conditions like obesity, heart disease and diabetes.

⁵⁵ Cohn, “Being Told What to Eat,” 194.

Chapter 2: Ask The Experts

This chapter charts attempts to consolidate nutritional authority within the federal state through the Canadian Council on Nutrition and Nutrition Services. The federal government was initially reluctant to admit the need for a central authority on nutrition, and relegated responsibility for nutrition to the municipalities and provinces. This perception that nutrition was not a national problem changed during the war as an alarming number of recruits were rejected for being unfit, a crisis that was largely attributed to poor diet. The outbreak of war also made it imperative that the food supply be tightly controlled, giving the state further incentive to intervene in the normally private affairs of the contents of its citizens' stomachs. During the war, 'eating right' became a national duty, encouraged at the federal level and exploited by advertisers. This intrusion into private life was justified by the extenuating circumstances of war. It was less digestible afterwards, but the wartime construction of the state as a scientific authority on nutrition was not easily dismantled. As well, the development of the post-war welfare state meant that citizens would forge new sorts of contracts with the state regarding bodily care. While there was some resistance to the intrusion of the state into private lives well into the 1950s and 1960s, the ubiquity of the Food Rules among nutritionists' and educators' tools, and the deluge of guidance-seeking letters from the public and other government departments, such as the Food and Drug Directorate, demonstrate that the CCN and Nutrition Services possessed some measure of legitimacy, at least in the eyes of some individuals and organizations.

As an official organ of the state, the CCN was intended to legitimate certain kinds of nutritional advice in a landscape where many different varieties of advice proliferated. Alan Hunt has indicated that the increasing pluralisation of expertise, such as we see in nutrition advice in the twentieth century with the advent of industry research groups and the explosion in popularity of alternative health advocates, means that "individuals are required to choose their own experts; in health care, body maintenance or personal relations a plethora of experts bid for the allegiance and commitment of individuals; complex struggles take place over credentialism, professionalization and official certification in which all forms of traditional authorities are challenged by clamorous rivals."¹ Government- employed

¹ Alan Hunt, *Governing Morals: A Social History of Moral Regulation* (Cambridge: Cambridge University Press, 1999), 219.

nutrition experts were keen to combat what they saw as rampant misinformation, but a lack of scientific consensus made this difficult. The state demanded more rigorous scientific proofs than did voluntary organizations or industry, and thus was more constrained in the kinds of advice it could distribute. The official nature of advice that came from the Department of Health and Welfare meant that CCN and Nutrition Services representatives were reluctant to engage with more controversial nutritional questions for fear of discrediting the institution charged with protecting Canadians' health, should their advice be proved incorrect if and when new data emerged. Ironically, the very sanctity of the official government word made it less effective.

Beginnings

Alana J. Hermiston has demonstrated how in the 1920s, following the discovery of vitamins, nutrition emerged as a social problem.² The League of Nations encouraged member states to improve nutrition within their borders, for good health through diet was seen as a means of improving morals and contributing to a productive economy. The League of Nations Mixed Committee on the Problem of Nutrition emphasized the links between a healthy diet and a productive workforce and thus, economy, as nations struggled to lift themselves out of the Depression.³ Aleck Ostry recounts how the LON promoted research during this time, optimistic that improved diets "would create more demand for food, which in turn would increase worldwide agricultural production, thus restimulating international trade and ending the economic crisis."⁴ The committee's report recommended that member states which did not already have a central nutrition authority establish one to "secure unity of policy and direction," hinting at the problem of divergent opinions in nutrition.⁵ In 1935, the League of Nations Mixed Committee on the Problem of Nutrition asked all member states to report on their nutritional status and how it could be improved. Canada's submission to the committee in 1936 is described by Hermiston as embarrassingly inadequate, its dearth of information justified by an insistence that health and nutrition

² Alana J. Hermiston, "If it's good for you, it's good for the nation!': The Moral Regulation of Nutrition in Canada, 1930-1945" (PhD Thesis, Carleton University, 2005).

³ *Ibid.*

⁴ Ostry, *Nutrition Policy in Canada*, 99.

⁵ League Of Nations, Memorandum of October 5th (1936), 3, quoted in Alana J. Hermiston, "If it's good for you, it's good for the nation!': The Moral Regulation of Nutrition in Canada, 1930-1945" (PhD Thesis, Carleton University, 2005), 61.

were municipal, or at best, provincial, concerns: “In the real sense of the word,” the report stated, “it is not a national responsibility.”⁶

Not only was nutrition not a national concern, it was also, according to a 1936 report, no cause for concern at all. That year, the Canadian Preparatory Committee’s Subcommittee on Nutrition submitted a report on nutritional status in Canada to the British Commonwealth Scientific Conference. This report indicated that malnutrition and access to food were not problems in bountiful Canada. Hermiston claims that the report was poorly received by many of the groups engaged in nutrition work, because the pretty picture it painted was not the one seen by those actually on the ground, particularly in rural areas, where hunger and malnutrition were problems.⁷ She states that several independent organizations, including the YMCA and the Visiting Homemakers Association, “sought to curtail the distribution of the 1936 Report of the Subcommittee on Nutrition, requesting that it be withdrawn from the British Commonwealth Scientific Conference,” on the grounds that it did not accurately depict conditions in Canada.⁸ That an official publication could be so scathingly condemned by a voluntary organization indicates that by no stretch of the imagination was the state considered an authority on nutrition at this time. While the Dominion Council of Health was receptive to the LON’s recommendation of a central nutrition authority, and groups such as the Canadian Dietetic Association and the Canadian Red Cross were also supportive, Hermiston insists that “their interest was in the creation of a governmental service that would *support the work already being done*, not one which would assume a leadership role, and from which they would be expected to take direction.”⁹

In response to the LON recommendations, the Canadian Council on Nutrition was assembled in 1938. The CCN was a federal advisory body composed primarily of representatives from universities, private organizations, and various government departments. The Dominion-Provincial Nutrition Committee, a sub-committee of the CCN, was composed of nutritionists from each province as well as federal Nutrition Division staff, and served as a coordinating body. In 1941, the Nutrition Services Division was formed to communicate the messages and implement the programs conceived by the CCN. Both

⁶ Canada’s reply to League of Nations Mixed Committee on Nutrition, Nutrition Questionnaire (February 22, 1936), quoted in Hermiston, 59.

⁷ Hermiston, “If It’s Good For You,” 69.

⁸ *Ibid.*

⁹ *Ibid.*, 96. (Italics in original)

organizations were under the purview of the Department of Pensions and National Health, and functioned until 1969.

Because health was considered a provincial responsibility, prior to the war, the federal government did not use nutritional science to promote health and optimal nutrition. It was, however, concerned with how the science of human nutritional requirements related to unemployment benefits. Aleck Ostry discusses how, in the 1930s, minimum nutritional requirements were interpreted to justify lower relief rates by the federal government, which was increasingly compelled to assist with provincial and municipal relief payments that were becoming unmanageable for the smaller jurisdictions.¹⁰ As such, some government nutritionists, like Dr. E.W. McHenry, were reluctant to adopt the LON's dietary standard, which was based on optimal nutrition, insisting that it did not apply to Canadians. McHenry, keenly aware "of the economic implications of a new dietary standard on unemployment relief expenditures," proclaimed the nutrient values to be too high, especially in regards to the allotment for women.¹¹ He distinguished between European women labouring on farms out of necessity, and sedentary Canadian ladies, in an attempt to have the caloric requirements for women reduced from 2,400 calories per day to 2,000.¹² This lower requirement would have fallen within a range more compatible with, among other things, food purchasable with existing relief allowance rates. Such caloric frugality indicates that dietary standards at this time were less about promoting health than they were about "holding the line."¹³ In 1938, the newly-formed CCN, "after considering the standards set forth by the Health Organization of the League of Nations decided that those standards were not applicable to Canadian conditions and devised a set for that purpose."¹⁴ The formulation of a Canadian-specific standard may have been fueled in part by relief rate considerations, but it was also part of an effort to enhance the legitimacy of the state organ by purporting to know what was appropriate for Canadians.

¹⁰ Ostry, *Nutrition Policy in Canada*, 3.

¹¹ *Ibid.*, 109.

¹² *Ibid.*

¹³ *Ibid.*

¹⁴ Canada, Department of National Health and Welfare, "A Dietary Standard For Canada" (1948), LAC. Department of Health fonds, RG29, volume 962, "Nutrition Division" series, file 387-9-1, "Nutrition Services. Associations, councils, etc.," part 24, "Canadian Council on Nutrition, December 1948 - October 1949."

When the CCN was formed, it represented some independent organizations, such as the Red Cross Society, the Canadian Dietetic Association, the Visiting Homemakers Association, the Canadian Association of Social Workers, and the Canadian Welfare Council. However, it was “composed primarily of representatives from various government departments,” and for this reason, it was criticized by several concerned individuals and organizations who clamored for representation.¹⁵ The Nutrition Services branch was formed in 1941, lead by Dr. L.B. Pett of the CCN, and would deploy the state’s nutritional science in a different way. No longer used primarily to calculate relief rates, from the context of food shortages and a perceived nutrition crisis, the new goal of optimizing nutrition to aid the war effort emerged.

While the federal government had initially been hesitant to admit to the presence of any nutritional problems, the war, and dietary surveys conducted by the CCN in 1939 and 1941, revealed trouble. A highly publicized 40% rejection rate of army recruits based on what were sometimes portrayed as nutritional grounds revived old adages about armies traveling on their stomachs and food wining the war.¹⁶ Dietary surveys of several Canadian cities exposed ‘invisible’ malnutrition, subclinical deficiencies that did not express themselves as vividly as rickets or scurvy, but were nonetheless concerning. The discovery of this ‘latent malnutrition’ and the extenuating circumstances of the war fueled a demand from some groups for greater government involvement, but this was contingent on the emergency situation. For example, in 1941, the National Council of Women petitioned the government:

to give their support to attaining immediate instruction in food values and efficient meals in every home in Canada by the appointing of a specially trained nutritionist in our Federal Department of Health and a nutritionist in each province whose sole duty will be to co-operate in such tasks. And be it resolved that the governments be asked to give this problem their immediate consideration as an urgent war measure.¹⁷

When Pett assembled Nutrition Services, he was acutely aware of the challenges and conflicts that had plagued the CCN as it elected council representatives. Therefore, “this time around, Pett sought to include individuals and groups who were not formally represented

¹⁵ Hermiston, “If It’s Good For You,” 65, note 31.

¹⁶ James Struthers, “How Much Is Enough? Creating a Social Minimum in Ontario, 1930-1944” *Canadian Historical Review* 72,1 (1991): 39-83.

¹⁷ National Council of Women, (May 22, 1941), quoted in Hermiston, 95. (Emphasis in original)

on the Canadian Council on Nutrition.”¹⁸ Hermiston notes that women’s organizations were among the most frequently nominated, with multiple recommendations for the CHEA, the YWCA, the Imperial Order of the Daughters of the Empire, the National Council of Women and the Federated Women’s Institutes.¹⁹ Given the interests of groups like the National Council of Women, it is not surprising that volunteer nominations came mainly from women’s organizations.

Voluntary Organizations

Many voluntary organizations were involved in nutrition work in Canada before, during, and after the war. I explored the archival records of three of these organizations: the Canadian Home Economics Association, the Canadian Dietetic Association, and the Health League of Canada, all of which were represented on both the CCN and Nutrition Services. Each represented different interests, which sometimes overlapped, and sometimes competed. The CHEA was and is a federated, national professional association whose purpose is to “strengthen the home economics profession and to promote improved quality of life for individuals and families.”²⁰ Its professional female membership was concerned with the practical applications of nutrition, including food prices. The CHEA recognized the growing cultural importance of science and technology, and embraced it as means of elevating home economics to the status of a professional, rational, and scientific endeavour.

The Canadian Dietetic Association was incorporated in 1935 “for the purpose of promoting and improving the status of dietitians in Canada.”²¹ There was some overlap between the CDA and the CHEA. For example, in 1968, the Nutrition Committee of the CDA on the Dominion-Provincial Nutrition Committee “functioned as a joint C.H.E.A. – C.D.A. Committee.” The joint committee consisted of five members, all of whom were members of the CDA, while three had joint membership in CHEA. The CDA too was made up primarily of women, having welcomed their first male member in 1963. The CDA was eager to establish dietetics as a serious science rather than one that was only appropriate for women. Their minutes reveal that in the 1960s, they had tried to distance themselves from women’s-only

¹⁸ Hermiston, “If It’s Good For You,” 96.

¹⁹ *Ibid.*, 97.

²⁰ Canadian Home Economics Association Biography/Administrative History on Collections Canada website. Accessed 27 June 2014. <http://collectionscanada.gc.ca>.

²¹ Canadian Dietetic Association Biography/Administrative History on Collections Canada website. Accessed June 27 2014. <http://collectionscanada.gc.ca>.

groups. At a 1968 meeting, members discussed discontinuing their affiliation with the National Council of Women:

This group is concerned with the affairs of women only... To date our affiliation has not been beneficial and has served to identify us with a women's-only group. If we are to encourage male membership I do not feel that we should affiliate with a women's organization.²²

The Health League of Canada was a civil organization concerned with public health, and was therefore perhaps the least scientifically or professionally oriented, although professionals, including Dr. McHenry, did staff it. Unlike the CDA and CHEA, the HLC boasted a robust male membership. The HLC possessed a certain brusqueness it had cultivated tackling subjects from which others would often shy away. Formed in 1921 with the intent of combating venereal disease in Canada, they developed into the Canadian Hygiene Council and expanded their charter in 1936. The HLC maintained they did work the government was unable or unwilling to do, for example, broach intimate subjects not appropriate for a state body to discuss.²³ According to their own 1959 history, the Health League of Canada

was established as a means of supporting the efforts of the Federal Department of Health as a new national health entity. This was very necessary during the first two years when the venereal disease problem was very serious and when the term venereal disease itself was so unpopular that any department attempting to deal with the problem would find it difficult.²⁴

Their style was often more forceful and opinionated than it was prudent, and the HLC strongly supported many controversial public health interventions, including milk pasteurization, water fluoridation and mandatory vaccination. Members strongly believed that education was the key to good public health and that the public was in dire need of instruction: "unfortunately the mere fact that a discovery has been made is no guarantee that it will be made applicable," lamented the president of the HLC in 1960. He discussed the difficulty of overcoming fear and ignorance in public health and preventative medicine:

We are creatures of habit. We have become accustomed to looking on sickness as a necessary evil; to thinking that the solution of the sickness problem requires only additional hospital beds and the treatment of sick people. Every effort to correct this

²² Canadian Dietetic Association, *Annual Report* (1968), LAC, Canadian Dietetic Association (hereafter CDA) fonds, MG28 I209, volume 3, file 4, "Annual Reports of the CDA, 1960-1978."

²³ HLC, *Annual Report* (1959), LAC, HLC fonds, MG28 I332, "Annual Reports" series, volume 10, file 9, "HLC. Annual Report for the year 1959."

²⁴ HLC, *Annual Report* (1960), LAC, HLC fonds, MG28 I332, "Annual Reports" series, volume 10, file 10, "HLC. Annual Report for the year 1960."

situation has met with public opposition. This became evident first, in the difficulty we had in the early years of even discussing the problem of venereal diseases in public. But over the years the League has always found this difficulty when a new problem comes up. Even the prevention of diphtheria met with opposition. There was violent opposition a few years ago when we attempted to promote legislation for the pasteurization of milk. Recently one of the most difficult problems has been to establish public confidence in the fluoridation of water for the prevention of dental caries. As in the opposition to vaccination 150 years ago, opposition to these measures mentioned above, has been due to ignorance and prejudice.

The job of the Health League of Canada over the years has been to dissipate the ignorance and prejudice which stand in the way of our efforts to make it possible for people to take every advantage of discoveries in the field of preventative medicine.²⁵

There was overlap between the HLC and other voluntary organizations as well, but this is not to say their interests always aligned. A CDA representative attended HLC meetings, but the minutes of the 1968 general meeting of the CDA reveal a desire to cease affiliation with the HLC. The CDA considered some of the literature the HLC distributed to schools to be out of date, and while they “might have been of benefit in assuring that the literature was accurate and current,” the HLC had not requested the services of the CDA’s Education Committee for quite some time. The minutes also note that “municipal, provincial and national health departments now provide more nutrition information services and are assuming this responsibility as quickly as they have staff available,” indicating that an increasing share of nutrition education was being done by state agencies.²⁶ Hermiston suggests that “in a practical sense, Nutrition Services became a ‘clearing house’ for nutritional information, but also the producer of the ‘official’ stance on nutrition, created by the work of the many individuals and groups already engaged in this work, and repackaging it as advice ‘endorsed by Nutrition Services.’”²⁷

Constructing Authority

One of the challenges the CCN faced in their early days was the very sparse Canadian-specific material on nutrition, which impeded the formulation of an actual nutrition program apart from the dissemination of general nutrition advice. As late as 1949, ten years after the inception of the CCN, its newly formed Food and Nutrition Program

²⁵ HLC, *Annual Report* (1960), LAC, HLC fonds, MG28 I332, “Annual Reports” series, volume 10, file 10, “HLC. Annual Report for the year 1960.”

²⁶ CDA, *Annual Report* (1968), LAC, CDA fonds, MG28 I209, volume 3, file 4, “Annual Reports of the CDA, 1960-1978.”

²⁷ Hermiston, “If It’s Good For You,” 97.

Committee bemoaned, “no body of any kind, governmental or otherwise, has actually outlined a food and nutrition program or policy for Canada.”²⁸ Hermiston indicates that at the beginning of the Canadian nutrition program, the government had very few publications of its own and relied primarily on material published by life insurance companies.²⁹ This reliance continued into the following decades: at a nutrition conference in 1955, mortality statistics from life insurance policies were used to demonstrate obesity risks.³⁰ And when the CHEA indicated in 1962 that 30% of the Canadian population was overweight, and, as such, predisposed to death and disease, they were quoting life insurance statistics.³¹ Relying on such statistics was problematic because they were gathered only from those individuals who applied for life insurance. The CCN recognized this shortcoming, suggesting that “the weight-height tables... have a limited usefulness” because of this bias and because they fail to take into account “hereditary and environmental factors, such as ethnic origin, socio-economic status, geographic location and family size.”³² Insurance companies also had an interest in limiting the body size deemed healthy so as to be able to charge higher rates for those who fell outside of that range. The issues with depending on an outside party’s statistics were apparent to the CCN, which recommended that the Department of Health “sponsor further surveys on a national basis of anthropometric measurements, as well as other observations of a nutritional significance,” noting that “various Civil Defense meetings have also referred to the need for such measurements.” While there was “no lack of data on the subject, especially from other countries,” in Canada, the most popular tables for average heights and weights were published by Baldwin and Woods and Metropolitan Life Insurance Companies. The CCN was critical of such tables, indicating in 1952 that there are often:

no references to the source of the data... Furthermore, the tables are 20-30 years old and it has been shown that the time factor is important because people are growing

²⁸ Canadian Council on Nutrition (hereafter CCN), Food and Nutrition Program Committee, *Minutes* (1949), LAC, Department of Health fonds, RG29, volume 962, “Nutrition Division” series, file 387-9-1, “Nutrition Services. Associations, councils, etc.”, part 24, “Canadian Council on Nutrition Dec 1948-Oct 1949.”

²⁹ Hermiston, “If It’s Good For You,” 71.

³⁰ *Second Nutrition Conference Proceedings* (1955), LAC, Canadian Home Economic Association (hereafter CHEA) fonds, MG 28 I359, volume 28, “General Subject Files” series, file 1, “Department of National Health and Welfare: Second Nutrition Conference Proceedings.”

³¹ CHEA and the University of Toronto Faculty of Household Science, “Brief to Royal Commission on Health Services” (1962), LAC, CHEA fonds, MG I359, volume 25, “Briefs to Royal Commissions and Inquiries” series, file 8.

³² CCN, “Proposal for a Height-Weight Survey for Canada” (1952), LAC, Department of Health fonds, RG 29, volume 962, “Nutrition Division” series, file 387-9-1, “Nutrition Services. Associations, councils, etc.”, part 26, “Canadian Council on Nutrition Mar 1951-Nov 1952.”

progressively taller... It can be concluded that no tables in use give an accurate value or average weight for height and age that can be applied to today's citizens.³³

By producing Canadian-specific material, such as height-weight tables, nutrition survey results, and Canada's Food Rules, the CCN and Nutrition Services worked towards consolidating their authority as a provider of Canadian-specific nutritional information.

Misinformation and the Role of Advertising

In their 1962 brief to the Royal Commission on Health Services, the CHEA recommended that the Food and Drug Directorate employ "a fully qualified nutritionist to help protect the public."³⁴ There was a deep concern about what scientists considered to be rampant misinformation in the press and the dangerous effects it could have on a susceptible public. Health officials were aware that the claims they were making could be appropriated by anyone trying to turn a buck. In 1955, James Macdonald Beveridge, Professor of Biochemistry at Queens, assured Pett in a correspondence that his department was "very much aware of the misuse to which [nutritional] information might be put" and that they were anxious "to avoid that type of thing."³⁵ The following excerpt from the minutes of a CCN meeting in 1959 demonstrates the anger and frustration many nutritionists felt about the way sound nutrition advice was misconstrued in popular media:

Dr. Hawkins raised the query of what action might be taken to reduce the amount of erroneous nutritional information being disseminated to the public through radio, television, and the newspapers. It was suggested that responsible persons in such organizations be made aware of qualified persons willing to give expert advice on these matters. It was noted by Dr. Crampton that a panel of food editors which he had addressed recently had expressed concern over the lack of adequate information and their inability to locate adequate sources. The chairman noted that in his past experience he had learned to avoid such contacts, that regardless of accuracy of information submitted, it invariably appeared in distorted form. Dr. Beaton commented that in Toronto the newspapers appeared to seek sensation rather than fact, and consistently ignored the advice of the Toronto Nutrition Committee. Dr. McLaren stated that the newspaper editors appeared to be not so

³³ *Ibid.*

³⁴ CHEA and the University of Toronto Faculty of Household Science, "Brief to Royal Commission on Health Services" (1962), LAC, CHEA fonds, MG I359, volume 25, "Briefs to Royal Commissions and Inquiries" series, file 8.

³⁵ Correspondence between James Beveridge and L.B. Pett, January 26, 1955, LAC, Department of Health fonds, RG29, volume 962, "Nutrition Division" series, file 387-9-1, "Nutrition Services. Associations, councils, etc.", part 29, "Canadian Council on Nutrition Nov 1954- Feb 1956."

much 'starved for knowledge', but in spite of availability of sources of information seemed 'starved for the ability to interpret that knowledge.'³⁶

The importance of nutrition education was elucidated by the CCN in 1960, when it resolved:

Whereas the public is subjected to a great volume of inaccurate and misleading information; and

Whereas nutrition education is an important part of any public health programme; and

Whereas the federal Nutrition Division has developed a coordinated national nutrition plan by the encouragement, stimulation and support of provincial nutrition programmes and by the provision of uniform, accurate and effective educational materials,

The Canadian Council on Nutrition recognizes the importance of education of the public by the provision of reliable information.³⁷

In 1953, addressing the 18th annual convention of the CDA, Dr. Neige Todhunter complained that "fads and fallacies about food are encouraged by some charlatans and faddists who have little concern for truth and through advertising and the powerful channels of radio and TV promote their own products to the enrichment of themselves, but to the nutritional detriment of their followers."³⁸ The federal state had been making efforts to protect the public from misleading advertising for several decades. The Food and Drug Directorate was formed in 1920, shortly after the Department of Health itself, and regulated the safety and marketing of food and drugs in Canada. It had been screening newspaper advertisements "for false claims relating to food labels since the late 1920s," and in 1933, with the establishment of the CBC, it also began screening radio advertisements.³⁹ The minutes of a 1951 CCN meeting indicate that policing print ads was especially difficult because while:

radio advertising is subject to review by the federal health department before it is broadcast[,] newspaper and other forms of advertising are subject to control only

³⁶ CCN, *Minutes* (1959), LAC, Department of Health fonds, RG29, volume 3465 "Nutrition Division" series, "Minutes of the Canadian Council on Nutrition -- Binder 2, 1946-1961."

³⁷ CCN, *Minutes* (1960), LAC, Department of Health fonds, RG29, volume 3465 "Nutrition Division" series, "Minutes of the Canadian Council on Nutrition -- Binder 2, 1946-1961."

³⁸ "Democracy Can Only Exist in Countries With Sufficient Food," *St. Catherine's Standard*, June 16, 1953, Clipping located in LAC, CDA fonds, MG28 I209, volume 4, "Scrapbooks, 1947 -1955."

³⁹ Ostry, *Nutrition Policy in Canada*, 61.

after publication, when the Food and Drugs [Directorate] may take court action, if they consider the advertising to be false, exaggerated, misleading, or likely to give an erroneous impression.⁴⁰

However, it was “extremely difficult and time consuming to prove a statement to be any of the above.” For this reason, the provision of “accurate information regarding foods and what they may do for a person” was considered more effective than legal action.⁴¹

Along with misinformation, the CCN was concerned with the appropriation of governmental approval to sell products at a time when public trust in government was high. During the war, food producers had actually been encouraged to emphasize their products’ healthful qualities in their advertising. This was considered a creative means of assisting the CCN, fettered as it was by a limited advertising budget, in disseminating its message. During the war, the CCN and Nutrition Services approved a pamphlet that was distributed to members of the Association of Canadian Advertisers that encouraged advertisers to promote nutrition as part of their wartime marketing campaigns. In the pamphlet, it is indicated that Pett had approached the Association of Canadian Advertisers “in the hope that Canada’s advertisers would help to promote Better Health by means of their regular advertising and printed material.” The pamphlet stated that

Nutrition Services has no advertising appropriation of its own since all of its funds are devoted to organization and research work and the preparation of a limited amount of educational material for use in schools, women’s clubs and by industry. The Nutrition Services Division recognized that its Nutrition Programme needs the impetus which advertising can give to any drive of this kind... Such advertising promotion will produce great benefits in raised public health standards, thus aiding the war effort. The advertisers themselves will be rewarded with enhanced prestige for their companies and products.

Good health through diet was expressed in concrete war-terms:

Let’s take a look at some facts estimated by Nutrition Services, Ottawa: in 1942, Canadian war industry alone lost an estimated 9,000,000 man-days due to preventable illness! *This man-day loss in terms of fighting equipment is the equivalent of 2,000 bombers!* This loss can also mean a longer war, more casualties among our fighting forces and prolonged suffering for the civilian population of our allies in the war zones.

⁴⁰ CCN, *Minutes* (1951), LAC, Department of Health fonds, RG29, volume 3465 “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition -- Binder 2, 1946-1961.” (Emphasis in original)

⁴¹ *Ibid.*

The stark truth is that because Canadians are not as physically fit and healthy as they should be and can be, peace is delayed and the day of Victory postponed!

The publication was careful to reassure Canadians advertisers that the food supply was strong: the problem was not availability, but selection. This stress on proper food selection rather than structural factors was a note that would resound in Canadian discussions about nutrition for decades to come. The pamphlet indicated that the CCN had:

established the fact that in this 'land of plenty,' there was plenty of food and food products. But there was also plenty of preventable ill health directly traceable to poor eating habits and lack of proper nutrition. There has always been plenty of good food, nutritious food; but malnutrition still exists and its ill effects in advanced stages are having a retarding influence on war production and enlistments in the services.

It is not, generally speaking, that Canadians are underfed! It is more that they are undernourished! Malnutrition is evident even among people who might ordinarily be considered to be well fed.

In the pamphlet, the promotion of nutrition education was written in a language that advertisers could understand: "let us look at this job of promoting Canada's Nutrition Programme as if Better Health were a commodity which could be sold over the counter." Six out of ten Canadians were deemed prospective 'customers' for Better Health. Advertisers during the war were encouraged to emphasize the Food Rules and the nutritious aspects of their products. They were told they could change the order in which the Food Rules were presented but could not alter them or accentuate any one rule.⁴²

However, after the war, Nutrition Services tried to reel in this sort of advertising, which had once again become subject to strict regulations. Although nutrition education was still important, the conflict of interests implicit in having advertisers conduct the majority of it could no longer be justified by the extenuating circumstances of the war, which had so strained federal financial resources. Pett indicated that during the war, it had been customary for himself or the department to be quoted in advertising. He regretted that the "procedure caused some difficulties for the Food and Drugs administration, but it also gave

⁴² *Canada's Nutrition Program: United Promotions for Victory*, (Hull: The E.B. Eddy Company, no date), LAC, HLC fonds, MG28 I332, volume 125, "Conferences" series, file 19, "Nutrition. Pamphlets. Miscellaneous n.d."

[Nutrition Services] considerable publicity which [they] could not have afforded to purchase, for specific causes.”⁴³

A 1948 Ovaltine advertisement was the topic of some contention among state nutritionists. The ad, in the style of a newspaper article, entitled “Need A Regular Source Of Vitamin D, Government Surveys Reveal,” indicated that:

It is well known that ‘Sunshine’ Vitamin D is important to growing children. Here is what Dr. L.B. Pett, Ph.D., M.D., Chief of the Nutrition Division, Department of National Health and Welfare says of the Government surveys:

‘...Children die every year of rickets, and others are permanently disfigured. Our surveys show that over half of our children do not receive a source of Vitamin D regularly. Yet it is one of the most sure preventative measures. Furthermore, it is not safe to depend on food or sunshine; Vitamin D should be provided regularly in some manufactured form.’⁴⁴

While the stated facts were not debated, Pett was unhappy to be quoted because it looked like an endorsement of the product, and it is evident from the correspondence that his colleagues agreed that this type of advertising was not desirable, because “no matter how it is done there is liable to be the impression of endorsing a product.”⁴⁵ The minutes of a 1961 CCN meeting stressed “there is an automatic fifty-year copyright on any government publication and that restriction of this abuse might be possible by action on copyright infringement.” The council had reiterated at that meeting that “no person or organization shall be permitted to reproduce ‘Canada’s Food Guide’ except for use in legitimate health education programs which are not associated with promoting sales of any foodstuff or proprietary product bearing a brand name or company name,” and that permission to reproduce the Food Guide should be granted only by written consent, and only “after receipt of an undertaking that ‘Canada’s Food Guide’ will not be reproduced in any published

⁴³ “Ovaltine Advertisement” Correspondence between L.B. Pett and G.D.W. Cameron, Deputy Minister, Department of National Health, October 19, 1948, LAC, Department of Health fonds, RG 29 volume 923, “Nutrition Division” series, file 385-7-5, “Nutrition Services. Liaison and Correspondence with Departmental Directorates and Divisions. Food and Drug. June 1945 - Apr 1960.”

⁴⁴ Ovaltine Advertisement, clipping from unidentified newspaper, no date, LAC, Department of Health fonds. RG 29 volume 923, “Nutrition Division” series, file 385-7-5, “Nutrition Services. Liaison and Correspondence with Departmental Directorates and Divisions. Food and Drug. June 1945 - Apr 1960.”

⁴⁵ “Ovaltine Advertisement,” Correspondence between L.B. Pett and G.D.W. Cameron, October 19, 1948, LAC, Department of Health fonds, RG 29, volume 923, “Nutrition Division” series, file 385-7-5, “Nutrition Services. Liaison and Correspondence with Departmental Directorates and Divisions. Food and Drug. June 1945 - Apr 1960.”

material bearing a company name or brand name which is associated with a particular foodstuff or proprietary product, nor displayed in proximity to such products.” Failure to abide by the above terms would be considered copyright infringement.⁴⁶

A few years earlier, in 1959, the CDA representative had voiced concern about “faddy, inaccurate (syndicated) food and diet articles that appear in the press”, and discussion had focused on “methods that might be used to prevent publications of such material,” but it was concluded “no direct action could be taken to prevent newspapers printing whatever they wished.” Counteraction was just as difficult: health professionals were well aware that they were at a disadvantage, noting sadly that “articles containing sound nutrition information are less dramatic and appealing than those which deviate from fact; consequently it is more difficult to get them accepted for publication.”⁴⁷

A lingering sense that industry could play an educational role was articulated at the 1961 meeting, when it was suggested that nutritionists employed by industries that advertised “could endeavor to increase the nutrition content of the advertisements in order to strengthen nutrition education.” However, those present employed by these firms “explained that all advertising copy is subject to Food and Drug Regulations, and that there are strict limitations on the language that can be used and the way in which ideas can be expressed.” As such, by the 1960s, the document reveals that most commercial interests had “lost interest in nutrition education through advertising” because the narrow language permitted by the Food and Drug Regulations lacked “sales appeal.”⁴⁸

Some Canadian producers were quite upset by these regulations, especially because American advertisers were not bound by them. K.L. Johnson, Advertising Manager for BC Tree Fruits, Ltd., wrote to Pett in 1952 and enclosed an advertisement for Sunkist California Oranges which he described as “one of the most misleading and misrepresentative pieces of copy to appear in a long time.” Johnson wrote:

Our understanding of Canadian health and pure food laws is that the public are not to be misled in any advertising. Certainly in our advertising we are kept to a very hard and fast line which keeps the effectiveness of our advertising at a much lower

⁴⁶ CCN, *Minutes* (1961), LAC, Department of Health fonds, RG29, volume 3465 “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition -- Binder 2, 1946-1961.”

⁴⁷ CCN, *Minutes* (1959), LAC, Department of Health fonds, RG29, volume 3465 “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition -- Binder 2, 1946-1961.”

⁴⁸ CCN, *Minutes* (1961), LAC, Department of Health fonds, RG29, volume 3465 “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition -- Binder 2, 1946-1961.”

level than would be the case if we were allowed to make health claims for our fruits; claims which we feel would be fully justifiable. Doctors agree that fruit is of considerable assistance to health, but your department does not see fit to let us use this point in our advertising.

Beyond question, the average housewife has a limited budget for fruit purchases. Every cent spent on an imported fruit is therefore one less for a Canadian product. Every extra cent spent on oranges, is that much less for Canadian products and Canadian producers.

We are not afraid of competition; rather, we welcome it. It does seem too bad, however, that in trying to sell Canadian grown products, in Canada, to Canadians, we must face the competition of the type of advertising enclosed. Such advertising is governed only by U.S. laws, while our own advertising must comply with Canadian laws, which virtually do not allow us even to mention the word 'health', much less extol the virtues of 'protopectins' without even telling the public what they are.

Johnson claimed that, "incidentally... apples contain considerably more 'protopectins' than oranges," and requested that they be allowed to run an advertising campaign on apples "claiming all the health benefits contained in the attached ad." He was disgruntled that U.S. advertising did not have to "conform with Canadian laws," and demanded to know why.⁴⁹

This staunch stance on advertising of the Food and Drug Directorate was intended to protect consumers. It did not reflect every nutrition expert's views within the Department of Health. Pett, who had overseen successful nutritional education campaigns by advertisers during the war, indicated in the Ovaltine correspondence that while "an easy way out is to avoid systematically all such commercial support," he and a colleague agreed "that the Department might be able to find a less dramatic course with more benefit to the causes that [they] wished to promote."⁵⁰ This suggests Pett and others saw room for advertising and industry in nutrition education, if only for their spacious advertising budgets.

Inquiries to the CCN

That advertisers were keen to latch on to government scientists like Pett and government-endorsed advice like the Food Rules, and later, the Food Guide, demonstrates

⁴⁹ Correspondence between K.L. Johnson and L.B. Pett, August 11, 1952, LAC, Department of Health funds, RG29, volume 923, "Nutrition Division" series, file 385-7-5, "Nutrition Services. Liaison and Correspondence with Departmental Directorates and Divisions. Food and Drug. June 1945 - Apr 1960."

⁵⁰ Ovaltine Advertisement," correspondence between L.B. Pett and G.D.W. Cameron, October 19, 1948, LAC, Department of Health funds, RG 29, volume 923, "Nutrition Division" series, file 385-7-5, "Nutrition Services. Liaison and Correspondence with Departmental Directorates and Divisions. Food and Drug. June 1945 - Apr 1960."

that the state was emerging as a nutritional authority. Nutrition and meal-planning pamphlets based on the Food Rules began to proliferate. The 1942 Official Food Rules were updated in 1944, when the word 'official' was struck from the name. They were updated again in 1949, 1961, 1977, 1982, 1992 and then again in 2007. Throughout the post-war period, this guide to healthy eating was referenced by other governmental departments, such as the Department of Agriculture, whose 1957 edition of the brochure, *Foods for the Family*, provided a meal planning guide and menu patterns "based on Canada's Food Rules, and therefore includ[ing] the foods you should have every day."⁵¹ Non-governmental agencies also referred to the Food Rules/Guide in their descriptions of healthy eating. The 1966 edition of *What To Eat To Be Healthy: The General Principles of Proper Nutrition in Everyday Life*, a publication "issued under the joint auspices of The Canadian Medical Association and the Canadian Life Insurance Association" was based on the Canada Food Guide.⁵² Along with other government agencies and life insurance companies, voluntary organizations such as the HLC published material promoting Canada's Food Guide, such as *The Human Factory*, which was used in schools.⁵³

In addition to the increasing presence of the Food Rules/Guide in nutritional pamphlets, lunchrooms, classrooms and clinics, the consolidation of authority within the state can be inferred by the influx of inquiries to the CCN and Nutrition Services from the public, from other governmental departments, and from food industry representatives keen to obtain their blessing. Individuals wrote to Nutrition Services seeking specific advice, often about sugar. In 1961, Mr. Louwman of Kingston, Ontario, wrote,

Of late we have become aware of the harm effected by sugar on vitamine C. In view of this we are now trying to curb this effect by replacing sugar partly. The wife and I are using "saccharine" and the children honey (fresh). However there are some questions. Are we doing the correct thing? Is the effect of sugar really as dreadful? What is the effect of honey on vit. C?⁵⁴

⁵¹ Canada, Department of Agriculture, *Foods for the Family* (Ottawa: 1957), LAC, HLC fonds, MG28 I332, volume 126, "Conferences" series, file 3, "Nutrition. Pamphlets Canada Department of Agriculture. 1940-1960, 1980."

⁵² Elizabeth Chant Robertson, *What to Eat to Be Healthy: The General Principles of Proper Nutrition in Everyday Life* (London, Ontario: Canadian Life Insurance Association, 1966).

⁵³ HLC, *Annual Report* (1950), LAC, HLC fonds, MG28 I332, "Annual Reports" series, volume 10, file 1, "HLC. Annual Report for the year 1950."

⁵⁴ Correspondence between Mr. Louwman and L.B. Pett, reply dated October 17, 1961, LAC, Department of Health fonds, RG29, volume 930, "Nutrition Division" series, file 386-4-2, "Nutrition Services. Foods. Sugar. June 1942 -June 1967."

In 1951, Miss B. Paice, of Timmins, Ontario, wrote:

I wonder if I may impose on you for a suggestion or two: I would like to include a quantity of black strap molasses in my diet so as to get sufficient iron (I am anaemic) but cannot find a palatable way to take it except in gingerbread. I have tried to drink it in milk but that is unpalatable too. Could you suggest any way to include this in the diet, preferably as a drink, so as to disguise the strong molasses taste? I may say I do not like meat so it is difficult to get sufficient iron.⁵⁵

This is amusing because the CCN never endorsed molasses in the first place, and would have been very reluctant indeed to provide Miss Paice with molasses recipes. The Nutrition Services file on Crude Molasses overflows with nutritionists' frustration with the blackstrap molasses craze of the 1940s and 50s. While they did not think the thick black stuff to be harmful, they believed the nutrients it provided were widely available in much more palatable forms. Inquiries like those from Miss Paice illustrate a bit of the give and take involved in the establishment of the state's nutritional authority. Paice was evidently ignorant of the government's stance on this particular, and at the time, controversial, foodstuff. She took as a given that it was a valuable food, illustrating a selective uptake of nutritional advice from the popular press, fringe figures advocating miraculous cures like molasses and yogurt, and from official outlets. Other letters, like one in 1951 from Mr. and Mrs. J.A. Foord of Prince Albert, Saskatchewan, are also indicative of that kind of negotiation. They too take the goodness of blackstrap molasses as a given, while simultaneously berating the CCN for not concurring, and subtly urging it to reconsider its stance so that their beliefs may be legitimized by this state body. They wrote,

Dear Dr. Pett,

A news item under the caption 'Government Health Officials Debunk Raw Molasses Claims' panned the 'magic' of blackstrap molasses in December 30, 1950 issue of the Prince Albert Daily Herald.

The information we gleaned [*sic*] from the item seemed weak and questionable in light of what Cyril Scot has to say in his booklet 'Crude Black Molasses.'

⁵⁵ Correspondence between Ms. Paice and L.B. Pett, August 1, 1951, LAC, Department of Health fonds, RG29, volume 933, "Nutrition Division" series, file 386-4-10, "Nutrition Services. Foods. Crude Molasses."

Many of our friends and relations, ourselves included, are using crude black molasses and we would very much appreciate more information on the subject through the cooperation of your good offices.⁵⁶

In 1959, Mrs. Percy McFadden, of Navan, Ontario wrote “asking for comments on the possibility of harmful effects to the body from drinking cola drinks,” and was one of many who expressed anxiety about the new ubiquity of cola.⁵⁷ Much of the concern around soft drinks came from schools. Jean Oddie, Provincial Nutritionist for Manitoba, wrote to Pett in 1950, having recently been approached by a school whose staff was seeking:

some indication of the ill effect of coca cola in the human body. The idea behind it all, is that the student body have been urging for the installation of a coke machine, much to the chagrin and disappointment of the staff, hence they have come to us for help to ward this off.⁵⁸

Mrs. Frances I. Rice of Pontiac County Protestant Central School Board in Shawville, Quebec, wrote to Pett in 1956:

Dear Sir: I am under the impression that carbonated bottled “Soft Drinks” decrease the food value if taken at meal times. If there is a basic reason why such drinks are harmful will you please give me the facts – I am anxious to discourage some children from using them with school lunches, but I feel that I need some definitive information.⁵⁹

Such letters indicate that at least some segments of the population considered Nutrition Services and the CCN to be adequately competent and authoritative to provide reliable, scientific information regarding nutrition.

The public credibility of the government body was recognized by industry, which addressed concerns and complaints to the Nutrition Division, particularly when they felt they had been unfairly singled out for vilification. For example, in 1953, the Canadian Confectioners Association wrote to protest “the one-sided commentaries issued from time

⁵⁶Correspondence between Mr. and Mrs. J. A. Foord and L.B. Pett, February 14, 1951, LAC, Department of Health fonds, RG29, “Nutrition Division” series, volume 933, file 386-4-10, “Foods. Crude Molasses.”

⁵⁷ Correspondence between P. McFadden and L.B. Pett, March 24, 1959, LAC, Department of Health fonds, RG29, “Nutrition Division” series, volume 933, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

⁵⁸ Correspondence between Jean Oddie and L.B. Pett, February 14, 1950, LAC, Department of Health fonds, RG29, “Nutrition Division” series, volume 933, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

⁵⁹ Correspondence between F. Rice and L.B. Pett, October 3, 1956, LAC, Department of Health fonds, RG29, “Nutrition Division” series, volume 933, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

to time by a Government Department,” in particular, recently published references “to the experiments on white mice, which, while not questioned by this Industry as to the result of the diet on mice, is unfair with the emphasis laid on Candy.”⁶⁰ Pett handled the complaint of this association, which represented 80% of candy, chewing gum and cocoa producers in Canada, coolly:

You ask the question why we do not give the same emphasis to parents who feed their children mainly on bread or potatoes or jam or cakes. This is precisely what was done and at no time in any statement that I have made has Candy been referred to by name or indirectly. I do not know of the newspaper accounts you read on this matter nor whether they referred to Candy as such, but it is obvious that I am not responsible for the way they report or mis-report information. Furthermore, in these demonstrations we emphasize the fact that all the foods used are perfectly good foods, but a poor selection of foods can produce injurious effects even when the foods are good.⁶¹

Similarly, in 1953, Pett received a rather toadyish letter from Joseph A. Whitmore, Managing Director of the Association of Canadian Bottlers of Carbonated Beverages:

I thought that I should write you about a matter that may have escaped your attention. Having in mind our conversation respecting laboratory tests on white mice as they concern soft drinks, I was surprised to receive some clippings from American papers and enclose them for you... I remember, with much appreciation, the concern that you expressed about the release of such stories not properly presenting the facts, and I felt that you should be informed about this because undoubtedly someone is releasing information which has not passed through your hands.⁶²

Pett’s patronizing reply betrays his level of frustration with both the press and the commercial interests pursuing his approval:

It is astonishing how rewriting and condensation of reports can introduce so many errors. For example, we worked with white rats, not white mice. As another example, the list of food we fed one group is correctly stated as ‘bread and jam, candies and cookies,’ but in another place an interpretation is made about candy and soft drinks. As you know, there is never much chance of catching up with this sort of

⁶⁰ Correspondence between F.T.W. Saunders and L.B. Pett, April 28, 1953, LAC, Department of Health funds, RG29, volume 930, “Nutrition Division” series, file 386-4-2, “Foods. Sugar, June 1942 – June 1967.”

⁶¹ *Ibid.* (Italics in original)

⁶² Correspondence between J.A. Whitmore and Nutrition Services, June 4, 1953, LAC, Department of Health funds, RG29, volume 930, “Nutrition Division” series, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

error, and the policy of the Department tends in the direction of not attempting to make such denials as might seem to be indicated.⁶³

Nutrition Services employees also communicated at length with those of the Food and Drugs Directorate, who would often forward questions regarding the accuracy of food advertisements to Pett. In 1957, C.A. Morrell, Director of the FDD, sent Pett a pamphlet on honey, asking whether the following claims were “justified by scientific or medical evidence, and if so, in what respect?”:

Honey is an effective cure for hangover.
Honey is the best food for the heart. It loads it with strength.
Honey helps the tired business man relax and sleep soundly – has a sedative effect.
Honey has a favourable influence on high blood pressure.⁶⁴

Pett deemed the claims “suspect.”

But it was not only to the government that such requests were conveyed. Voluntary organizations such as the HLC were recognized as nutritional authorities in their own right, perhaps in some part by virtue of their association with the government body. The National Dairy Council of Canada evidently viewed the HLC as influential, for their Public Relations Committee sent them this letter in 1959, which quoted one of their own and was addressed to “Canadian Opinion Leaders”:

‘There is no sound reason at present for urging people to reduce the quantity of fat eaten nor to alter the kind of fat which they consume... There is certainly no good evidence at present that milk, cheese and butter are in any sense dangerous. They are, of course, beneficial and needed for health.’

The above quotation is from the enclosed booklet, ‘Dairy Foods and the Consumer’, by Dr. E.W. McHenry, M.A. Ph.D., F.R.S., (C), Professor of Nutrition, School of Hygiene, U of T. You have no doubt noted the vast amount of publicity being devoted to the alleged relationship between fats consumption and heart attacks and under the circumstances, we thought you would be interested in reading the professional views of this outstanding nutritional authority.⁶⁵

⁶³ *Ibid.*

⁶⁴ Correspondence between C.A. Morrell and L.B. Pett, October 23, 1957, LAC, Department of Health funds, RG29, volume 923, “Nutrition Division” series, file 385-7-5, “Liaison and Correspondence with Departmental Directorates and Divisions. Food and Drug. June 1945 - Apr 1960.”

⁶⁵ National Dairy Council of Canada. Letter to the HLC, dated November 6, 1959, LAC, HLC funds, MG28 I332, volume 125, “Conference” series, file 1, “Nutrition Correspondence (Part 1 of 2) 1955-1964.”

Limitations of State Authority

In fact, these voluntary organizations were often more effective than the governmental organizations because they could do what the state could not in two ways: they could (figuratively) come into people's homes without breaking with longstanding Canadian political tradition separating the public and the private spheres; and, they could afford to be, if not wrong, then at least less precise or more extreme in their advice than an official government organ. The CCN and Nutrition Services had to be very prudent in their advice lest they lose their credibility, or unnecessarily trample on industry interests. Jeanne P. Goldberg suggests that the lay public "tends to view alterations in... dietary recommendations as an indication of scientific indecision or worse, constituting yet another setback in the attempt to follow a healthful diet or another intrusion on a favorite pastime: eating."⁶⁶ It did not help matters that the science itself was not clear about what constituted a 'healthy' diet, especially where chronic disease was concerned. A scientific 'truth' became increasingly elusive as time went on, and once-popular perceptions about fat's connection to heart disease were challenged by emerging evidence that incriminated sugar, as well as other factors.

A lack of consensus regarding much nutritional data, particularly surrounding sugar, made doling out advice regarding its consumption risky business. As more and more emphasis was put on lifestyle and dietary choices as contributors to chronic disease, pressure mounted to make a statement. However, the CCN remained cautious and tried to maintain scientific rigor. The heart disease-dietary fat association was powerful in the public perception but there was also evidence that dietary sucrose may be a factor, though this did not seem to be as highly publicized. Until the late 1960s, sugar was primarily vilified for its associations with weight gain and tooth decay and for being devoid of nutrition. With the exception of a forceful few, like Dr. John Yudkin, who had suspected a link between sugar and heart disease since the 1950s, many nutritionists, particularly those employed by the state, like Pett, were reluctant to associate sugar with any particular disease.⁶⁷ As will be demonstrated in the following chapter, the public certainly was discouraged by the CCN from eating lots of sugar, but not for its implications in chronic disease.

⁶⁶ Jeanne P. Goldberg, "Nutrition and Health Communication: The Message and the Media Over Half a Century" *Nutrition Reviews* 50,3 (1992), 72.

⁶⁷ John Yudkin, "Diet and Coronary Thrombosis" *The Lancet* 270,6987 (1957), 155-162.

Into the 1960s, state nutritionists remained reluctant to make strong recommendations in the absence of scientific certainty. This was not only the case with sugar, but with fat, too. The CCN recognized that while “several nutrients (e.g. animal fat, cholesterol, sucrose) have been implicated as being deleterious to health when ingested in excess amounts,” an educational program to “alter the pattern of food usage by the Canadian people” would have to wait until “the evidence clearly indicates that certain nutrients are involved in the etiology of these diseases.”⁶⁸ A decade earlier, in 1954, Dr. Crampton, who sat alongside Pett on the CCN, had written him from the Macdonald Institute saying that he “should certainly like to see a short summary of recent papers... before voting finally regarding the dietary standard,” for he had “a feeling that medical men in general are no longer certain that high fat diets have very much to do with cholesterol levels in the blood or arteriosclerosis or atherosclerosis,” though he did peg fat intake as “an important factor contributing to the tendency toward overweight.”⁶⁹

Margaret McCready, also of the Macdonald Institute, claimed in 1954 that while she and several of her colleagues “had been looking into the literature... none has found any positive statement of the potential dangers in the excess use of fats.” She mentioned that the bulk of the studies implicating fat in heart disease referred to the work of Ancel Keys and wondered “whether Keys would change his summary and conclusions today.” McCready insisted that “certainly people have to be warned not to exclude fats as they might quickly do so to their detriment.”⁷⁰ Indeed, public zeal for nutrition was regarded as being as dangerous as public apathy. Manitoba nutritionist Anna Speers, writing to Pett in 1956, was alarmed that the Clinic Groups in her province were promoting low fat diets “almost to the point of making a fetish of it,” because there was much “still to be learned before we know the final answer in the effect of [low fat diets] upon human nutrition.”⁷¹

⁶⁸ CCN, *Minutes* (1962), LAC, Department of Health fonds, RG29, volume 3466, “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition – Binder 3 (1962-1969).”

⁶⁹ Correspondence between L.B. Pett and E.W. Crampton, November 23, 1954, LAC, Department of Health fonds, RG29, volume 962, “Nutrition Division” series, file 387-9-1, “Nutrition Services. Associations, councils, etc.”, part 29, “Canadian Council on Nutrition Nov 1954-Feb 1956.”

⁷⁰ Correspondence between L.B. Pett and M. McCready, November 30, 1954, LAC, Department of Health fonds, RG29, “Nutrition Division” series, volume 962, “Nutrition Services. Associations, councils, etc.”, file 387-9-1, “Canadian Council on Nutrition Nov 1954 - Feb 1956.”

⁷¹ Correspondence between L.B. Pett and A. Speers, February 20, 1956, LAC, Department of Health fonds, RG29, volume 962, “Associations, councils, etc.”, file 387-9-1, part 29, “Nutrition Services. Canadian Council on Nutrition Nov 1954 - Feb 1956.”

At a CCN meeting in 1956, “Dr. McHenry noted the very great interest in the relation of fat intake to atherosclerosis and that special low fat diets used indiscriminately can sometimes be harmful.” But it was eventually “decided that the subject was still a controversial one with much yet to be finally settled and that Council should therefore avoid making any formal statement at [that] time.”⁷² While the media sounded off relatively unfettered on diet and disease, and quacks chimed in, state experts, constrained by a lack of decisive evidence, had to keep mum.

By delaying a formal statement on the relationship of dietary fat to heart disease, the CCN in some ways continued to allow people to indiscriminately cut fat. Their quest for scientific certainty necessitated a quiet patience that fuelled the very misinformation they were trying to quash with facts and figures. But even if the jury was still out on a number of nutritional questions, intuition, or sometimes, the power of suggestion was enough for some, even scientists, to act on – if not in their official recommendations, then in their private lives. In 1954, James A.F. Stevenson, Professor and Head of the Department of Physiology at the University of Western Ontario’s Faculty of Medicine, wrote to Pett that since “becoming aware of Keys’ observations some months ago, [he had] tended to cut the free fat content of [his] own diet,” despite stating that “although the work of Keys is seriously received and it is agreed that a too high fat content in the diet is probably deleterious, it cannot yet be considered that the evidence for this is definitive and conclusive. A dogmatic warning would therefore not be justified.”⁷³

While they may have had hunches about fat and sugar, without proof they were unable to officially support them. As such, state experts realized that their hands were tied, but hoped that other factors would be effective in discouraging the consumption of suspected culprits of ill health. Where their authority ended, at the doorstep of the private household, it was hoped that a more personal authority would pick up the torch. In 1963, Health and Welfare Minister Judy Lamarsh indicated to a citizen concerned about cola and potentially toxic substances in the food supply, that, “insofar as the popular carbonated beverages are concerned, they may not be particularly healthful but *for purposes of*

⁷² CCN, *Minutes* (1956), LAC, Department of Health fonds, RG29, volume 3465 “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition – Binder 2, 1946-1961.”

⁷³ Correspondence between L.B. Pett and James A.F. Stevenson, December 6, 1954, LAC, Department of Health fonds, RG29, volume 962, “Nutrition Division” series, file 387-9-1, “Nutrition Services. Associations, councils, etc.,” part 29, “Canadian Council on Nutrition Nov 1954-Feb 1956.”

government action, proof of harm is required. Consequently, parents can exert an influence on their children, which at the same time preserves the important element of freedom of choice."⁷⁴

The preservation of this "important element of freedom of choice" was clearly a priority for government nutritionists who are all too aware of their potentially radical role in people's lives, especially in the political context of the Cold War. In Pett's reply to the previously mentioned Mrs. McFadden's inquiry about soft drinks, he expressed hope she would "appreciate that [he had] given [her] the facts without trying to say whether any particular person should or should not use soft drinks; this decision can only be given by consideration of the individual case by a physician or by the person who is in possession of the facts."⁷⁵ To the Pontiac Country Protestant School Board, he lamented that while he was "entirely in sympathy with [their] desire to discourage the use of soft drinks," he had to "admit that the factual evidence on which to base such action [was] limited."⁷⁶

In the CCN files, there is a notable absence of warnings against sugar on anything other than dental grounds, even though sugar was suspected of damaging more than just mouths. The lack of clear evidence indicating certain suspected food stuffs – sugar, animal fat, salt – actually caused specific health problems frustrated the Council who were trying to give nutritional advice a scientific, rather than an intuitive, basis. While this meant sound information for the public, it also had the potential to problematize long-standing nutrition traditions that had not yet been proven, like the dietetic undesirability of sweets. In 1952, as the CCN drafted a statement, Dr. McHenry suggested "that the final paragraph should discourage the use of sweet foods which he listed as pie, cake, candy and soft drinks particularly," due to his conviction that these foods replace more nutritious ones. While "no specific evidence was... before the Committee to show a reciprocal relationship between

⁷⁴ Correspondence between J. Lamarsh and L. Richardson, May 22, 1963, LAC, Department of Health funds, RG29, volume 933, "Nutrition Division" series, file 386-4-12, "Nutrition Services. Foods. Soft Drinks Oct 1947 - May 1963." (Italics mine)

⁷⁵ Correspondence between P. McFadden and L.B. Pett, March 24, 1959, LAC, Department of Health funds, RG29, "Nutrition Division" series, volume 933, file 386-4-12, "Foods. Soft Drinks, October 1947 – May 1963."

⁷⁶ Correspondence between F. Rice and L.B. Pett, October 3, 1956, LAC, Department of Health funds, RG29, "Nutrition Division" series, volume 933, file 386-4-12, "Foods. Soft Drinks, October 1947 – May 1963."

sweet foods and foods of high nutritional value... the Committee did not dissent from the opinion that the use of sweet foods should be discouraged.”⁷⁷

Conclusion

The ways nutritional science was deployed by the state changed with the war. Nutrition was initially utilized by the state reluctantly, and from a distance, to establish and address minimum survival needs. By the end of the war, the federal government was explicitly encouraging a healthy diet for a robust labour and military force. Later, during the post-war years and into the early 1970s, as funding flooded the Department of National Health and Welfare, and social services including universal medical care, expanded, the state was able to perform more of the work that had previously been done almost exclusively by voluntary organizations. Larger budgets increased the visibility of official state educational material, and provided the means to hire more local nutrition educators on the ground. However, while sanctified by the government seal, this work may have been less effective, or perhaps simply less satisfying, because it necessitated silences in the absence of certainty, and thus left gaps for opportunists to slip into. Industry, through advertising, which had at one time borne the official seal of state nutrition education, had the financial resources to compete with both state-sponsored and non-governmental narratives regarding good nutrition. The many different voices chiming in to the nutrition debate, and the many different interests they represented, made it difficult for the CCN and Nutrition Services to provide compelling advice that would be both scientifically sound and satisfactory to all parties with a vested interest in the meaning of good nutrition. As a result, they tried to emphasize ‘uncontroversial science’ above all else. As will be demonstrated in Chapter Four, private interests, by contrast, were able and willing to interpret the science to suit prevailing agendas, and thus were able to appropriate the veneer and language of science without holding themselves to the same rigorous standards as did the governmental agencies, who, while obviously influenced by industry, scientists, and, as Ian Mosby demonstrates, the economics of Canadian agriculture and food production, demonstrated a much more serious commitment to scientific neutrality.⁷⁸

⁷⁷ CCN Technical Committee, *Minutes* (1952), LAC, Department of Health fonds, RG29, volume 962, “Nutrition Division” series, file 387-9-1, “Nutrition Services. Associations, councils, etc.”, part 27, “Canadian Council on Nutrition Nov 1952-Apr 1954.”

⁷⁸ Mosby, “Making and Breaking.”

To what extent were government agencies, those sources of official nutritional advice, constrained by what ‘science’ and ‘government’ meant at the time, and could they have behaved differently? Both understandings about the role of science in social planning, and faith in traditional authority, were beginning to unravel in the late 1950s and early 1960s as segments of the population grew disillusioned with the promises of scientific advances and technology, and those officials who had heralded them. The optimism among public health professionals that had marked the late 1940s and 1950s began to fade as prophecies for the glorious techno-future remained unfulfilled. For example, cures for cancer and heart disease continued to evade researchers, and the persistent inability to eradicate poverty and social injustice caused many within the health professions and beyond to question the effectiveness of rational, scientific approaches to social planning. From the 1960s, a greatly expanded system of post-secondary education allowed record numbers of Canadians to access higher education, democratizing academia and undermining of the mythology of expert certainty. Certain sectors of the public became increasingly cognizant and suspicious of the ways that scientific information could be manipulated, especially in advertising. According to Korinek, this sense of suspicion was alive and well as early as the 1950s, evident in “the high culture backlash against the success of commercial popular culture” and “fueled by Cold War fears about ‘brainwashing,’” a phenomenon she contends contributed to the success of Vance Packard’s 1957 book *The Hidden Persuaders*, which documented the use of psychological techniques in advertising to manipulate desire.⁷⁹ In the realm of food, this growing suspicion was manifested in the way “health food exploded in the late 1960s and 1970s,” something Catherine Carstairs attributes to “widespread concern about the safety of our food, growing distrust of experts including doctors, scientists, and government regulators, and a desire for a more holistic approach to health.”⁸⁰ Still, governments proudly rooted in rationalism were eager to maintain traditional understandings of science as incontrovertible and a means to progress. As such, they were stuck with very basic premises for advice that ran the risk of being inadequate or unsatisfactory to a public wandering an increasingly complex and crowded nutritional landscape.

⁷⁹ Korinek, *Roughing It In The Suburbs*, 74; Vance Packard, *The Hidden Persuaders* (New York: Random House, 1957).

⁸⁰ Catherine Carstairs, “The Granola High: Health Food in Canada” in *Edible Histories, Cultural Politics: Toward a Canadian Food History*, eds. M. Epp, F. Iacovetta, and V. Korinek (Toronto: University of Toronto Press, 2012), 305.

The state at this time struggled to define acceptable boundaries for its involvement in private lives. Any bureaucratic intrusion could be equated with totalitarianism and European styles of government, highly undesirable in the polarized political climate of the Cold War. The federal government had to tread carefully to ensure its citizenry didn't confuse the expansion of social services with socialism. In no sphere was this tension more obvious than in the sphere of bodily care, that most private and intimate of matters which nonetheless had serious implications for the state's financial and bureaucratic machinery.

Resistance to state involvement in private matters was real. Hermiston articulates several "occasions where perceived government involvement proved to be a hindrance to a project's success."⁸¹ She recounts a "Health for Victory" project put on jointly by the Women's Canadian Club and the Manitoba Home Economics Association in 1941, which taught nutrition classes to 1,400 women, though three groups were cancelled:

one due to lack of interest, another ended because of a measles epidemic in the neighborhood, and the third because a centre in a labor district 'suspected' the program was sponsored by the government, and didn't want government advice or suggestion on what to do with their money.⁸²

Indeed, not everyone was charmed by the governmental intrusion into private life, nor did everyone have confidence in its capacity to run a national nutrition program: "How official is Canada's "official" nutrition program?" asked a 1942 editorial in *The Winnipeg Tribune*:

By all accounts, its official status is that of a stepchild. The Ottawa government's nutrition program is a vague, infertile cross between educational propaganda and wishful thinking... Ottawa has not lifted a finger to make better nutrition possible. Strictly speaking, what we have now is not a program at all, in the sense of making the necessary protective foods available to those Canadians who need them. Nor in the sense of planning food supplies so as to prevent needlessly jeopardizing the health of Canadians engaged in war work... Canada's nutritionists and numerous volunteer agencies are doing good work in spreading knowledge of nutritional values. The idea at Ottawa seems to be that all possible requirements are being met if the benign Hon. Ian Mackenzie lends departmental aid to the task of spreading the gospel. But for the sake of common sense, let us not pretend that we have an 'official' nutrition program' in Canada.⁸³

Aside from political considerations, there were practical limitations for government nutritionists. The very nature of their official status, which demanded a certain avoidance of

⁸¹ Hermiston, "If It's Good For You," 113.

⁸² Paper dated May 22, 1942, reporting on the activities of the "Health for Victory Project." Quoted in Hermiston, 113.

⁸³ *Winnipeg Tribune*, 1942. Quoted in Hermiston, 112-3.

contention, meant that only well established truths could be articulated, lest a differing hypothesis be proved true, and the government proved fallible. Their advice had to possess a sort of timelessness to encourage compliance – for what good was it to heed advice that changed every week? New scientific advances were all well and good from food producers and avant-garde faddists and even professional organizations, but official, federal advice was imbued with the expectation that, while of course being current, it also be enduring. As an additional challenge, pressure from industry interests, some with considerable political clout, would have been felt more acutely by the state than by voluntary organizations, who were less obliged to consider the business interests of important industry actors.

These constraints meant that Pett and others in his department actually had much less space to maneuver than may have been imagined. Despite their titles of keepers and administrators of biopower, government nutritionists were less able to influentially exercise their authority than were other, perhaps less official, actors. While these agents of the state did aim at creating a self-regulating populace, their tools were meager, and much duller than those which could be deployed by industry or even by voluntary or professional organizations – tools which spoke to those aspects of eating that motivated people much more than did nutrition – taste, comfort, aesthetics, and desire.

Chapter 3: Tracing Change

The post-war prosperity enjoyed by many North Americans was exemplified by a dramatic change in the continental foodscape. Canadians and Americans alike had entered the war hungry and weakened by the Dust Bowl and the Great Depression and emerged as the best-fed people on Earth. Thanks to wartime innovations in food production technology, a booming economy, and an infrastructure and landscape relatively unscathed by war, North Americans entered a period of alimentary abundance, the result of which was that, for the first time, dietary recommendations would be concerned with the effects of too much, rather than too little, food. Sugar is an interesting case study during this shift because it provides nothing but calories, which were precious in the depressed 1930s and war-weakened 1940s, but in an environment of post-war plenty had started to be perceived at best as superfluous, and at worst, dangerous.

This chapter looks at the change in nutritional advice regarding sugar from the Second World War until the 1970s. Wherever possible, I have tried to emphasize Canadian sources, however, the conversation was a decidedly international one, and several of the books and pamphlets I examined, despite turning up in Canadian libraries and archives, originated in the United States. The discussion is framed in terms of decades, but this is an arbitrary organizational device. Trends in advice bled from one decade into another, and in every instance, but particularly the 1960s, the rhetoric employed in dietary advice was both informed by the past, and looked to the future. Once considered delightfully benign, sugar was increasingly maligned and excluded from descriptions of healthy eating. While its expulsion did not proceed in an altogether linear fashion, a general trend is perceptible. The primary basis for restricting sugar intake in the 1940s and 1950s was that it rotted teeth. Concern about tempting treats displacing more nutritious foods from children's diets was tacked on in the 1950s. As obesity rates grew amid post-war plenty, so too did warnings to watch sugar consumption in the 1950s and 1960s. By the 1970s, concern about added sugars had been fully articulated amid fears that "sweetened breakfast cereals were making children addicted to sugar, causing hyperactivity and deleterious health consequences for the rest of their lives."¹ Sucrophobia peaked in the mid-1970s, which saw the publication of

¹ Harvey Levenstein, *Fear of Food: A History of Why We Worry About What We Eat*, (Chicago: University of Chicago Press, 2012), 147.

William Dufty's *Sugar Blues* and Yudkin's *Pure, White and Deadly*. At the same time, the public was concerned about other things in its food supply too, like additives and artificial sweeteners. As conceptions of health were re-imagined in 'natural' terms toward the end of the 1960s, sugar marketers exploited that concern against artificial sweeteners. Sugar producers attempted to rehabilitate sugar by portraying it as a safer alternative to sweeteners like cyclamate, which both the US and Canada banned in 1969 after studies (funded by sugar interests) emerged that linked the sweetener to bladder cancer in rodents. That ban was later reversed in Canada, where another sweetener, saccharin, was prohibited in 1977, a ban that endures. While some individuals, like Dufty, Yudkin, and J.I. Rodale, an eccentric organic farming advocate and alternative health practitioner, campaigned fervently against sugar, others felt it was at least safer than some of the alternatives.

In the late 1950s and early 1960s, as concerns about rising rates of chronic disease and obesity mounted, suspicions emerged that sugar was a potential culprit, especially in regards to diabetes and heart disease. The main proponent of the carbohydrate hypothesis of heart disease was John Yudkin, British biochemist, physiologist, and nutritionist at Queen Elizabeth College in London. Yudkin challenged Ancel Keys's popular contention that dietary fat was responsible for heart disease. Keys, while visiting Italy shortly after the war, had noted much lower rates of heart disease than in the U.S., and attributed this difference to lower levels of fat consumption. He famously advocated the 'Mediterranean Diet' as a means of maintaining heart health. His Seven Countries Study, which he claimed definitively established a link between high dietary fat intake and heart disease, was criticized by Yudkin and others for being selective – Keys had data for 22 countries in total, and was accused of cherry picking. Yudkin insisted that the link to heart disease was not fat, but sugar, and that this was consistent even when data from all 22 countries was examined.² Both Yudkin and Keys straddled science and popular nutrition, holding academic positions while publishing books for the lay public such as Yudkin's 1972 *Pure, White and Deadly* and Keys's 1959 *Eat Well and Stay Well*, for which his co-authoring wife provided recipes. In 1971, Keys virulently attacked Yudkin in an *Atherosclerosis* article, of which the sugar industry took note, praising the item as one which does "a great deal to dispel the accusations that have been made that sugar is a factor in the causation of coronary heart disease."³ The battle between the dietary fat/carbohydrate hypotheses of disease did much

² *Ibid.*, 146.

³ "Sugar and heart disease," *The International Sugar Journal*. 74,877 (January 1972), 32.

to complicate the doling out of nutritional advice in the thirty years after the Second World War, and indeed, has not been conclusively settled to this day.

By the 1970s, nutrition documents also articulated concern about sugar's alleged addictive qualities. That sugar was potentially addictive had been suggested by studies such as one by A. E. Harriman of the Department of Psychology of Franklin and Marshall College in Pennsylvania. Harriman demonstrated in 1955 that a preference for sucrose could override the compensatory salt selection one expects to see exhibited in adrenalectomized rats. Scientists in the 1940s had observed "prompt changes in the appetitive choices of laboratory rats following the onset of a variety of nutritional disturbances," such as the increased intake of calcium among parathyroidectomized rats (the parathyroid gland is concerned with maintaining blood calcium balance) and the "accentuated preference for sodium chloride" among rats who had had their adrenal glands removed (the adrenal gland produces aldosterone, which regulates sodium balance in the body).⁴ Such studies demonstrated that "whenever a need develops for one of the items of diet the laboratory rat immediately develops a specific hunger for the required substance. Thus, if the required substance is available, it is assumed that a life-long condition of least possible tissue stress resulting from the deficiency is assured."⁵ However, in his experiment, Harriman established "a strong and irrelevant preference for sugar over salt" in one group of his rats prior to operating on them, and this preference continued to manifest itself even after the rats' adrenal glands were removed, as the group raised on sugar continued "to select the sugar solution and to neglect the salt solution during the postoperative period."⁶ As Harriman noted, "this failure to increase salt intake following operation had serious consequences. Four of the rats in this adrenalectomized group died during the postoperative period [no deaths in other group], and the survivors exhibited marked weight losses."⁷ The startling implications of such a study may have contributed to sugar's addictive reputation, and the way some nutritional advice in the 1970s discussed sugar intake indicates that fears about the addictive qualities of sugar had finally permeated popular dietary advice.

⁴ Harriman, A.E. "The Effect of a Preoperative Preference for Sugar Over Salt Upon Compensatory Salt Selection by Adrenalectomized Rats," *Journal of Nutrition*, 57 (October, 1955), 271.

⁵ *Ibid.*

⁶ *Ibid.*, 275.

⁷ *Ibid.*

Wartime

Two wartime pamphlets illustrate the tensions between competing conceptualizations of sugar. Considerations of wartime economies and logistical problems left Canadians with mixed messages about food, especially sugar. The reduced availability of sugar and the necessity of its rationing led the Canadian and U.S. governments to discourage its consumption, initiating a shift in the way sugar would be perceived. While outliers had vilified sugar in the past, it took the manifestation of nutrition as a social problem with the war, and the centralized governmental response that resulted, plus a shortage, to officially begin discouraging consumption.⁸ A wartime government publication, “Fact Sheet to Mr. and Mrs. Consumer,” indicated that Canada imported about 80% of its sugar, mostly from the British West Indies, and asserted that “no person here would enjoy sweetened foods if they felt men and ships were being risked to bring unnecessary sugar to Canada.” Readers were told that sugar was not much good for them anyway: “nutritionists say Canadian diets have included too much white flour and sugar – let’s eat more whole grain cereal, more vegetables, and more fruits.”⁹

However, this staunch stance was not always present in wartime nutrition publications. More commonly, such documents focused on idealized health and morale, rather than on practical or political considerations, and did not actively discourage sugar consumption. This suggests that the rationing-born “Fact Sheet,” more a political document than a nutritional one, took an extreme stance in admonishing sugar consumption for logistical reasons, rather than health concerns. In contrast, let us examine a publication whose primary purpose was to improve eating habits. One such pamphlet featured the Royal Canadian Air Force and declared, “what they eat to be fit is good for the health of all Canadians.” It was not nearly as critical of sugar as the “Fact Sheet,” because its primary purpose was to improve health and maintain morale, not to control the consumption of a particular, suddenly scarce commodity.

⁸ Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (Oakland: University of California Press, 1994); Wendy Woloson, *Refined Tastes: Sugar, Confectionary and Consumers in Nineteenth Century America* (Baltimore: Johns Hopkins University Press, 2002).

⁹ Canada, *Fact Sheet to Mr. and Mrs. Consumer*, no date, LAC, Department of Health funds, RG29, volume 930, “Nutrition Division” series, file 386-4-2, “Nutrition Services. Foods. Sugar June 1942-June 1967.”

The RCAF pamphlet also demonstrates the emphasis on science that would colour most nutritional advice henceforth. The introduction indicates that “scientific investigations conducted since the early days of the war have determined the food needs of our men and women. Now, this timely and valuable information is published for the benefit of all Canadians; for today, proper food is a weapon of war.” This publication illustrates the increased official interest in public nutrition for both scientific and political reasons. At the same time, this idealistic, prescriptive document places less emphasis on food availability and tries to focus on the basics of nutrition and as such, does not discourage sugar consumption the way a primarily political document like the “Fact Sheet” does. The pamphlet utilized the then-wildly-popular trope of body as machine, for which sugar was an appropriate fuel: “like the aircraft, the human machine must have fuel. For a plane it’s gas and oil. For a person it’s starches, sugars and fats. These supply the energy that makes you ‘tick.’” It warned that “because these foods are so filling and can be prepared so attractively, they are often eaten to excess, crowding other essential foods out of the menu,” but the emphasis was on personal bodily control rather than any supposed inherently dangerous quality of sweet food itself.¹⁰

According to the pamphlet, the RCAF’s daily ration included bread, jam and coffee for breakfast, and applesauce, cookies and tea or cocoa for supper. Readers were encouraged to eat certain foods (like pasteurized milk and cheese, meats, eggs, vegetables, fruits and fruit juices, and certain grain products) first, and “then satisfy the appetite” with the following “energy foods”: additional bread and butter, sugar and sweets, pies, cakes, pastry, fat meats, additional cereals, shortening, lard, and oils. The pamphlet indicated that “the fats, starches, sugars so abundant in these foods, provide the heat or energy necessary for the human body” and suggested that it was wise “to eat these items only as ‘fillers’ to satisfy the appetite after eating all the important protein, mineral and vitamin foods.” There was no negative connotation- the extras were necessary extras, and one *should* eat them once all the nutritious food has been consumed. Canada’s Official Food Rules in 1942 also stressed eating protective foods first; the consumption of sweets was not discouraged as long as nutritional requirements were being met. The 1942 Food Rules demonstrate a hint of emphasis on restraint but still, too, evidence of a residual cultural impulse to eat in

¹⁰ The Life Insurance Companies of Canada and the Canadian Medical Association, *What They Eat to be Fit is Good for the Health of All Canadians*, no date, LAC, HLC fonds, MG28 I332, volume 126. “Conferences” series, file 2, “Nutrition. Pamphlets 1953-1978.”

quantity left over from the lean 1930s, when calories were more scarce. The emphasis on restraint in dietary advice would become more common as post-war prosperity increased and so too did access to richer foods. By the late 1940s, restraint, rather than sequence, was preached. A 1949 draft of the Food Rules stated “DO NOT OVEREAT – OBESITY IS DANGEROUS – WATCH YOUR WEIGHT,” a departure from previous advice to eat indiscriminately after consuming adequate quantities of nutritious food.¹¹

1950's

For the first time, in the context of post-war prosperity and improvements in food and harvesting technology, the problem for the West was not too little food, but too much. Over the course of the 1950s, sugar lost its status as a valuable energy food and began to be regarded as nutritionally cheap, while more emphasis was placed on its cariogenic qualities. Concern was also mounting that sugar was displacing more nutritious foods, but sugar itself was not yet depicted as very dangerous. For example, in 1951, Dr. L.B. Pett of the Canadian Council on Nutrition had stated that while soft drinks were not “essential or irreplaceable foods,” they were nonetheless “foods and should have a place in the diet.”¹² Some years later, in 1956, he declared that “however undesirable may be the use of soft drinks and other sweet foods, I think that it has to be recognized that the danger is probably very slight if a person is eating according to Canada’s Food Rules.”¹³

Much of the concern around sugar displacing nutritious foods centered on children’s diets, indicating that perhaps sugar was not seen as a threat to sensible adults. A newspaper article in the 1950s titled “Sugar not recommended as quick energy pick-up,” stated that “children do not necessarily need a quick-energy pickup in the form of concentrated sugar. If a child seems better, happier and less cranky with a quick between-meal snack, the last

¹¹ “Canada’s Food Rules” (1942), LAC, Department of Health fonds, RG29, volume 962, “Nutrition Division” series, file 387-9-1, “Nutrition Services. Associations, councils, etc.”, part 24, “Canadian Council on Nutrition Dec 1948-Oct 1949.”

¹² Correspondence between L.B. Pett and F. G. Patten, September 12, 1951, LAC, Department of Health fonds, RG29 volume 933, “Nutrition Division” series, file 386-4-12, “Nutrition Services. Foods. Soft Drinks Oct 1947 - May 1963.”

¹³ Correspondence between F. Rice and L.B. Pett, October 3, 1956, LAC, Department of Health fonds, RG29, “Nutrition Division” series, volume 933, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

thing to give him is concentrated sugar. Some form of protein is better, or just bread and butter.”¹⁴ That sugar could be a problem for adults was not indicated.

The pamphlet *Good Food for Every Child*, prepared and distributed in the 1950s by the Ontario Interdepartmental Nutrition Committee, acknowledged Canada’s Food Rules as “the general guide for health” and especially emphasized “decreased consumption of sweet foods” as a goal for improving the food habits of Ontario children. The pamphlet indicated that “the use of too many sweet foods lessens the desire for other healthful foods. Sweet foods are not cheap, especially when the nutritive value is considered.” This publication depicted sugar as a poor value food, providing very little nutrition for the money and calories. The benefits of reducing children’s sugar consumption were listed as such:

1. Children will be in less danger of tooth decay.
2. Children will have a greater consumption of foods with high protective value.
3. Children will receive more food value for the food money spent by their parents.¹⁵

Aside from harming teeth, sugar in itself was not depicted as dangerous, only in that it displaced nutritious food. It was frivolous and wasteful, but not deadly. A similar publication, *Foods That Healthy Children Like*, prepared by the Nutrition Section of the Women’s Institute and the Ontario Department of Agriculture, and approved by the Ontario Interdepartmental Nutrition Committee, stressed the same points, indicating that “it is common knowledge that sweet foods dull the appetite” and that “sweet foods are not usually the foods for health and growth and are not cheap when food value is considered.” The emphasis was once again on “too much sweet food” and children’s diets.¹⁶

An early 1950s publication which urged mothers to follow Canada’s Food Rules noted that “concentrated sweets- candy, pop, fruits canned in heavy syrups... tend to dull the appetite and the child who eats them often loses interest in the blander, more nutritious

¹⁴ Winnie McLearn, “Sugar not recommended as quick energy pick-up,” no date, in unidentified newspaper clipping, LAC, CDA fonds, MG28 I209 volume 5, Scrapbooks, 1954-1958.

¹⁵ Ontario Interdepartmental Nutrition Committee, *Good Food for Every Child*, no date, LAC, CHEA Fonds, MG28 I359, volume 15, “Committees” series, file 1, “Nutrition Committee: Correspondence, 1951-1954.” The Ontario Interdepartmental Nutrition Committee consisted of representatives from the Departments of Agriculture, Education, Health and Public Welfare, and was chaired by E.W. McHenry, a member of both the Canadian Council on Nutrition and the Health League of Canada.

¹⁶ Ontario Department of Agriculture and the Women’s Institute, *Foods That Healthy Children Like* (1950), LAC, CHEA fonds, MG28 I359, volume 15, “Committees” series, file 15, “Nutrition Committee: Correspondence, 1951-1954.”

foods.” The dangers of sugar for children in particular were articulated in the adaptations to the meal plans provided for family members of different ages. While the adult, adolescent and 10 year old are prescribed butter and jam with breakfast, “no jam” is indicated for the toddler, who, along with the 10 year old, gets applesauce instead of apple pie after lunch.¹⁷ Youngsters were seen as particularly susceptible to sugar’s effects, or perhaps their smaller appetites meant they simply had to get more nutrition per bite. In contrast, the Health League of Canada’s publication, *Lunch for Industrial Employees*, which was written for a labouring adult male population, always had room for dessert.¹⁸

The special association between children and sugar would persist into the following decades. A 1974 inquiry from Katheryn Kopf, Chair of the University of Guelph’s Family Studies Department, to Winifred Bracher, president of the Canadian Home Economics Association, after the implementation of the Code of Ethical Standards, “questions the use of candy and similar food stuffs as reinforcers in research with children.” Kopf noted that “while the amount of such foodstuffs consumed by the subject is not likely to present a physical health hazard, the issue is raised as to the ethics of a practice which may lead a child to perceive candy, etc. as ‘good’ or ‘valued’ food.” She submits, given:

that food habits and attitudes learned during childhood influence food behaviour throughout life,

that nutritional choices of many people are already inadequate,

that occurrence of dental caries is positively related to consumption of candy and sweets, and

that high sugar consumption in Western countries has been implicated as a causative factor in heart disease,

Should the use of such foods as reinforcers be considered unethical despite the fact that it has been a commonly accepted practice, especially in behavioural research and among parents and other adults seeking to modify children’s behavior?¹⁹

We see an of example of how, by 1974, sugar had fallen so out of favour that Kopf was unsure about the ethics of serving it as reward for fear of what kind of habits that might

¹⁷ *Family Nutrition*, no date, LAC, HLC fonds, MG28 I332, volume 124, “Conferences” series, file 22, “Nutrition. Correspondence, 1951-1952.”

¹⁸ HLC, *Lunch for Industrial Employees*, no date, LAC, HLC fonds, MG28 I332 volume 124, “Conferences” series, file 22, “Nutrition. Correspondence, 1951-1954.”

¹⁹ Correspondence between Kopf and Bracher, 6 December 1974, LAC, CHEA fonds, MG28 I359, volume 15, “Committees” series, file 7, “Food and Nutrition Committee – Reports, Briefs and Correspondence 1963-1978.”

engender among children. Kopf's indication that sugar is a tool which can be employed by parents and other adults to influence children's behaviour suggests a certain mastery on the part of the candy-wielding adult, who is understood to be relatively immune to the behaviour-modifying (if not disease-producing) effects of sugar, while the child is at their mercy.

But the crowding out of sugar did not proceed in a linear fashion, and the confusing choreography of its rise and fall was no doubt complicated by the number of dancers on stage, each endowed with a different range of motion. For example, unlike *Foods Healthy Children Like*, a 1957 government publication called *Foods For the Family* suggested Baked Lemon Pudding, Rolled Oat Batter Pudding, Steamed Carrot Pudding, Ginger Apple Upside-down Cake, Angel Bread Pudding with Whipped Jelly Sauce, Chocolate Mint Pie, Lemon Snow with Custard Sauce, Pudding Delight and Chocolate Crumb Pudding, Creamy Raisin and Rice Pudding, Apple Pie, Ice Cream and Sauce, Cookies, Tarts, Layer Cake, Cinnamon Rolls, and Fruit Crisp, as well as "Jam, Marmalade, Honey, or Syrup" for breakfast, with no indication that children should forgo these treats.²⁰

Despite the inclusion of such sweet recipes in state commissioned literature, sugar producers had already begun accusing the federal government of disparaging sugar. In 1953, the Department of Trade received a letter from Havas, a French publicity firm, asking "whether the Canadian government is currently carrying on a publicity campaign against the use of sugar in Canada." Havas had been hired to "put on a drive to increase sugar consumption in [Canada] and have been disturbed by reports that the Canadian Government is discouraging the use of sugar." The Department of Trade had "assured the French firm that to the best of [their] knowledge the only anti sugar campaign would be that which discouraged the excessive consumption of candy by children, which would probably originate in the Department of Health."²¹ They asked the Department of Health for enlightenment on this question, and received the following reply:

Advice given by technical government personnel on subjects related to their professional fields should not be interpreted as an expression of government policy. Physicians, dentists and nutritionists etc. employed in their professional capacities

²⁰ Canada, Department of Agriculture, *Foods for the Family* (Ottawa: 1957), LAC, HLC fonds, MG28 I332, volume 126, "Conferences" series, file 3, "Nutrition. Pamphlets Canada Department of Agriculture. 1940-1960, 1980."

²¹ Correspondence dated April 21, 1953, LAC, Department of Health fonds, RG29, volume 930, "Nutrition Division" series, file 386-4-2, "Nutrition Services. Foods. Sugar. June 1942 - June 1967."

by governments often give professional advice based on scientific information, and in conformity with the teaching of their professional confreres in private practice. Departments of Health provide the facilities for the dissemination of such information. This information often deals with the intelligent use of many foods including sugar. For example, our health education material refers to the effect on dental health, of the excessive use of sugar.²²

The Information Services Division chimed in that:

It might be said at the outset that there is no government policy against the use of sugar in Canada. From time to time, certain federal officers have made observations on the effect of over-use of sugar in the diet – particularly with reference to tooth decay. However, such observations did not indicate a general official objection to the use of sugar.

The Nutrition Division of the Department of National Health and Welfare would regard as a retrograde step, possibly detrimental to the national health, any appreciable increase in the consumption level of carbohydrates, including starches and sugars, by the Canadian public. However, nutrition policy in Canada is based on the need for a balanced diet, obtainable by eating a variety of foods, especially those contributing needed nutrients. Canadian food levels are becoming increasingly well-balanced as a result of increases in the use of such foods as milk, fruits, vegetables and protein foods. To some extent these increases are due to the governmental and other encouragement of such foods. No such encouragement is given to carbohydrate foods, but they are recognized as useful in the diet, and there is no campaign against them in federal nutrition material.

While the Federal Government takes no stand against the use of sugar, in some of the provinces, notably Ontario and British Columbia, there is some objection – more on economic than nutritional grounds – to the use of sweet foods since they are often relatively expensive for the nutrients obtained from them.

I think that the best answer, perhaps, to make your enquiry would be that there is no objection in Canada to using sugar to an extent compatible with good nutrition, but that nutritionists and those working in the field of dental health do discourage the over-use of sugar. We have made no particular attempts to combat consumption of candy or of sugar except to the extent that it represents a hazard either to proper nutritional balance or to dental health.²³

Such a response demonstrates that in 1953, sugar was not considered inherently dangerous, but it was recognized that its over-consumption could pose certain problems, particularly in the realm of dental health. The delicate, diplomatic framing of the reply illustrates how

²² Correspondence dated May 15, 1953, LAC, Department of Health fonds, RG29, volume 930, "Nutrition Division" series, file 386-4-2, "Nutrition Services. Foods. Sugar. June 1942 – June 1967."

²³ Correspondence dated May 21, 1953, LAC, Department of Health fonds, RG29, volume 930, "Nutrition Division" series, file 386-4-2, "Nutrition Services. Foods. Sugar. June 1942 – June 1967."

government health professionals struggled to strike the fine balance between protecting citizens' health and citizens' freedoms.

1960s

During the 1960s, we see several shifts. One is from concern about sugar as simply a problem of child nutrition. Another is a shift towards a more natural, unprocessed, and earth-bound conception of health, as opposed to the sterilized, synthetic, or scientific understanding of healthfulness that had marked the late nineteenth century and most of the twentieth. The health concerns of the late nineteenth and early twentieth centuries were shaped by germ theory and focused on controlling the spread of infection as North Americans rapidly urbanized. Improvements in public health measures during this period were effective in curtailing the spread of once-devastating diseases like cholera and tuberculosis, and the effectiveness of these interventions contributed to an understanding of health as something that was assured through science and sterilization. The promotion of baby formula as safer than, and superior to, breast milk is an apt nineteenth century example, as are vaccination and milk pasteurization campaigns. This conceptualization of scientific and technological interventions as conducive to health persisted into the second half of the twentieth century. For example, the enthusiasm with which North Americans embraced processed foods in the post-war period illustrates how processed foods were initially seen as healthy, modern and desirable additions to the diet. However, by the late 1960s, concern about food additives and processing techniques was growing.²⁴ Popular nutrition figure Adelle Davis insisted that modern farming practices had so depleted North American soil, it was necessary to take vitamin supplements.²⁵ The thalidomide tragedy and the 1962 publication of Rachel Carson's *Silent Spring*, which depicted the widely-used pesticide DDT as lethal, lead many Canadians to doubt not only the ability of their government to protect them, but also whether the fruits of science were as safe and propitious as had been previously presumed. As such, this time period witnessed a shift from a science-centred conception of healthfulness that was useful at a time when infectious diseases and sanitation were the primary health concerns, toward a conception of healthfulness more in line with the new health concerns of post-war North America. In

²⁴ Catherine Carstairs, "'Our Sickness Record is a National Disgrace': Adelle Davis, Nutritional Determinism, and the Anxious 1970s," *Journal of the History of Medicine and Allied Sciences* 69,3 (July 2014), 461-491.

²⁵ Adelle Davis, *Let's Get Well* (New York: Harcourt, Brace and World, 1965).

regards to sugar, this had ambivalent effects. On the one hand, sugar was a highly refined food beloved by food processors and suspected of contributing to diabetes, heart disease and obesity. On the other, it was perceived by some as being more natural, and therefore healthier, than the artificial sweeteners that were growing in popularity during this period.

Throughout the 1960s, sugar was still considered a 'cheap' food. A 1960 government publication for nurses produced by the Nutrition Division explicitly described sugary breakfasts as "poor." While there was still some sugar in the "good breakfast," it was rounded out by plenty of other nutritious food, a continuation of the message that sugar was not dangerous itself, only when it displaced healthy food. This publication included (brown) sugar and jam as part of a good breakfast, which also included fruit, rolled oats, milk, toast and butter, while the poor breakfast was only toast, butter, jam and coffee with cream and sugar. A poor school lunch was also sugary: jam sandwich, oatmeal cookie, and soft drink, but there was room for sugar in the good lunch too, which included an oatmeal cookie and cocoa in addition to a peanut butter sandwich, a cheese sandwich, and an apple. Similarly, suggestions for workers' packed lunches included apple pie, gingerbread, cookies, doughnuts, cake and cocoa. Sugary foods were intended as a sweet note at the end of a nutritious meal and not as the meal itself. However, with this document, we begin to see slightly ominous warnings emerge (albeit only towards another vulnerable group), as the pamphlet, without explaining why, urged pregnant women to "reduce sugar and other sweets."²⁶

A 1963 government publication, *Healthful Eating*, opened the discussion about sugars and extras fairly neutrally, with the familiar refrain that they were acceptable as vessels for, and in addition to, essential foods. It stated that fats and sugars:

are important in the diet mainly as sources of energy (calories). Some fats and oils (e.g. butter, fortified margarine, and fish liver oils) are important also because they contain fat-soluble vitamins. With the essentials suggested in Canada's Food Guide, forming the basis of the diet, other foods such as fats and sugars may be added to increase palatability and caloric value.

As the document progressed, however, sugar took on increasingly negative connotation:

²⁶ Canada, Department of National Health. Nutrition Division, "Nutrition Cards for Nurses" (1960), LAC, CHEA fonds, MG28 I359, volume 46, "Publications" series, file 1, "Pamphlets on Nutrition, n.d., 1937 - 1950."

sugars, because they contribute little other than calories, should be used primarily to improve flavour in other foods rather than as a food in themselves. Since sugars satisfy the appetite without fully nourishing, they should be eaten near the end of a meal. In this way they will not interfere with the eating of foods that contain protein, minerals, and vitamins.

In this document we also see advice that suggests replacing sugary desserts with fruit, and substituting “nuts, raisins, prunes, or other dried fruits for candy.” It also distinguished between white and brown sugar and, claiming that “white sugar yields calories only, whereas molasses, corn syrup, and maple syrup supply some calcium and iron.”²⁷ While during the nineteenth century, refined sugar’s whiteness had represented purity and health, by the 1960s, less refined forms of sugar such as brown sugar and molasses, once snubbed and relegated to the kitchens of the poor, were starting to be conceived of as healthier.²⁸ 1964’s *Clean Plates: Cooking for Young Children* stated that “there is no reason for your child to pile white sugar on his cereal every morning.” It recommended instead serving “brown sugar or honey as the sweetener and add[ing] fresh fruit (sliced bananas, raspberries, blueberries), raisins or wheat germ for energy.”²⁹ This shift away from processed purity as an indicator of health towards a more ‘natural,’ raw, description is apparent in other documents as well. In 1969, 7-Up published a recipe book that abandoned the scientific vocabulary popular in many other corporate dietary materials for a more wholesome one, claiming that “7-Up and food just naturally go together! ... You get a fresh feeling when you drink it, and everything in 7-Up is pure, wholesome and good for you.”³⁰

Experts continued to place special emphasis on sugar in children’s diets. In the 1960s we see more discussion about sugar’s effects on behaviour, but its suspected link to hyperactivity was not well publicized until the 1970s, when pediatric allergist Dr. Ben Feingold suggested that hyperactivity could be caused by dietary factors.³¹ Prior to that, sugar was recognized as being useful in manipulating children’s behaviour, though its volatile physiological effects were acknowledged. *Clean Plates* advised against tiding children over between meals with cookies or sweets, for even though “the sugar in cookies

²⁷ Canada, Department of National Health. Nutrition Division, *Healthful Eating* (Ottawa: 1963), Guelph University, McLaughlin Archives Special Collections.

²⁸ Sidney Mintz, *Sweetness and Power: the place of sugar in modern history* (New York: Penguin Books, 1985), 22.

²⁹ Mitzi F. Perry-Miller, Elizabeth Crossman and Margaret Nicol, *Clean Plates: Cooking for Young Children* (Chicago: Scribner Publishing, 1964), 31.

³⁰ Dominion 7UP Company, *Quick Recipe Favorites*. (Toronto: 1963). Guelph University McLaughlin Archives Special Collections, “Miscellaneous Canadian Cookbooklets, 261-280,” no. 271.

³¹ Ben Feingold, *Why Your Child is Hyperactive* (Random House, 1975).

converts to quick energy and will pep up a child in minutes... the vigor produced will not last longer than an hour or so.”³² The text indicated that “a mother may not want to dole out cookies for fear of killing her child’s appetite; on the other hand, she surely will not want a whiny, miserable half-hour.”³³ This is reminiscent of Diane Tye’s childhood memory of eating “peanut butter cookie after peanut butter cookie” in church, which her “mother doles out as the service drags on...apparently less worried about the effects of [her] all-sugar diet than the danger of [her] making noise and drawing attention to [them].”³⁴ Tye wrote, “it is not uncommon for mothers to use sugar to comfort children... sugar can quiet a family. Despite what we know about the energy-boosting effects of sugar, it also keeps children still – at least for a while.”³⁵

Sugar’s enduring status as a weapon in the parental arsenal notwithstanding, we begin in the 1960s to see efforts by adults to eliminate it from their own diets in efforts to lose weight or improve health. *The Sugar-Free Cookbook* went to print in 1964, suggesting that there was money to be made off a growing anxiety about sugar.³⁶ The book recognized the emotional significance of sugar in the diet, noting that “just because you limit sugar in your diet – whether to cut calories or because your doctor says you must – you need not miss out on eating fun.” It also spoke to the pervasiveness of sugar by marketing itself as a book for those who have found “cutting down on sugar or cutting sugar out of [the] diet” to be a “problem.”³⁷

The late 1960s saw the publication of Jerome Irving Rodale’s *Natural Health, Sugar and the Criminal Mind*. Rodale insisted that criminality was connected to sugar consumption, from petty crime to mass murder. Dufty’s *Sugar Blues*, which made similar claims, would follow in the early 1970s. The emergence of this kind of literature on sugar complicated public opinion of the product because it tied sugar to social and psychological problems, a claim for which there was no data, rather than to just physical ones, for which the data was,

³² Perry-Miller *et. al.*, *Clean Plates*, 113.

³³ *Ibid.*

³⁴ Diane Tye, *Baking as Biography: A Life Story in Recipes* (Montreal: McGill-Queens Press, 2010), 87.

³⁴ Mintz, *Sweetness and Power*, 145.

³⁵ *Ibid.*

³⁶ William I. Kaufman, *Sugar Free Cookbook* (Garden City, New York: Doubleday and Company, Inc., 1964). The special edition I looked at was prepared for E.R. Squibb and Sons, a division of the Olin Mathieson Chemical Corporation, producers of artificial sweetener. It was indicated that the regular publisher’s edition was also available from the publisher or booksellers.

³⁷ *Ibid.*

at best, inconclusive. Further, the vitriolic tone of such publications polarized the discussion around sugar, and the presence of radical, unacademic figures in the anti-sugar camp undermined its legitimacy and related it to mere quackery.

1970's

Documents from the 1970s continued to advise even adults to keep their distance. An HLC publication from the early 1970s, *Best Kinds of Meals*, encouraged readers to use all kinds of sugar “as little as possible.”³⁸ A government publication, *Good Food, Good Health*, included a shopping guide that said some sugar should be purchased, but not more than 1.5lb per person per week.³⁹ While encouraging an upper limit on sugar purchasing indicates that it was seen by the authors as undesirable, 1.5lbs is a fairly generous allotment of straight sugar when compared to the rhetoric in an insurance nutrition publication distributed in 1978, which asked, “Do you really eat two pounds of sugar a week?”⁴⁰ *The Joy of Eating: A Guide to Better Nutrition*, a publication produced “as a public service” by The Mutual Life Assurance Company of Canada, and written by Ruth Fremes, a home economist and consumer reporter on the CTV television network, and Zak Sabry, a professor of nutrition at Guelph and one of the coordinators of the Nutrition Canada survey, was offered to policy holders, and apparently, Mutual Life was “swamped with requests” for the text.⁴¹ It warned readers to be on the look out for hidden sugars:

It's hard to believe, but studies have shown that we consume on average about 100 pounds of sugar a year for every man, woman and child. That means a person shopping for a family of four walks away from the supermarket each week with eight pounds of sugar, some in pure form and the rest in processed foods like cereal, jams, jellies and even peanut butter and ketchup.

Here we are beginning to see not only concern with hidden sugars, but also the development of an insidious characterization. To avoid sugar was no longer simply to refuse dessert, it was to actively evade it in its myriad manifestations. The publication assured readers it was “surprisingly easy to cut down” on sugar once they knew “where it's hidden:”

³⁸ HLC, *Best Kinds of Meals*, no date, LAC, HLC fonds, MG28 I332, volume 125, “Conferences” series, file 3, “Nutrition. Correspondence. 1970-1973.”

³⁹ Department of National Health and Welfare, *Good Food, Good Health!*, no date, LAC, HLC fonds, MG28 I332, volume 125, “Conferences” series, file 3, “Nutrition. Correspondence. 1970-1973.”

⁴⁰ Ruth Fremes and Zak Sabry, *The Joy of Eating: A Guide to Better Nutrition*, no date, LAC, HLC Fonds, MG28 I332 volume 126, “Conferences” series, file 2, “Nutrition. Pamphlets 1953-1978.”

⁴¹ Correspondence, LAC, HLC fonds, MG28 I332, volume 126, “Conferences” series, file 2, “Nutrition. Pamphlets 1953-1978.”

The first step is to take less. Turn a heaping teaspoon into a level one, and next week make it a scant spoonful – done gradually that way you can reduce your taste for sweets without knowing it. Try to buy processed foods made without sugar, and replace sweet desserts with fresh fruit. Be warned that artificial sweeteners won't solve the problem, because they sustain your tastebuds' craving for sugar.

We see the deployment of a new kind of rhetoric, one that was painted with themes of craving and addiction. It spoke to a hedonistic culture of excess, comparing it to an idyllic past, when, “not long ago, three meals a day meant good, nutritious food from morning to night. So, if Granny wanted to indulge us with candy or a rich dessert occasionally, it was indeed a treat. Soft drinks and fancy cakes were for special occasions only.”⁴² This was, of course, not true if Granny was following dietary guides from the 1940s and 50s, such as one commissioned in 1942 by Spry shortening which urged housewives to “serve cakes frequently,” and suggested serving dessert “once or twice a day.” Given the high dietary correlation of sugar and fat (which so frustrated Yudkin and Keys and their dueling theories), we should not be surprised to see this industry guide encouraging the consumption of sugar-laden cakes. However, this pamphlet was created with the expressed intention of improving food habits. Spry had reassured its female readership in 1942 that they had “a real job to do in [their] country's defense... to see that [their] family gets good food and plenty of it... to choose the *right* foods... prepare them so that they will be both appetizing and delicious. It is not enough for food to be wholesome, nutritious, well-balanced... food must also look good, taste good.”⁴³

This refrain was taken up by many food producers who peddled goods, like shortening and sugar, which could not be marketed as health foods: the product was important because it was a vessel for nutritious food and made nutritious food palatable. Even the early 1970s HLC pamphlet *The Best Kind of Meals* advised readers to use sweets “as little as possible,” but said that sugar is “needed for sweetening sour fruit and to flavour milk puddings.”⁴⁴ This designation as a vessel was acceptable in sugar's case until the mid-1970s, when its potential negative effects were perceived to outweigh the nutritional benefits of the foods it was escorting. For instance, Mutual Life's *Joy of Eating* indicated that

⁴² Ruth Fremes and Zak Sabry, *The Joy of Eating: A Guide to Better Nutrition*, no date, LAC, HLC Fonds, MG28 I332 volume 126, “Conferences” series, file 2, “Nutrition. Pamphlets 1953-1978.”

⁴³ Spry Foods, *Good Cooking Made Easy* (1942), LAC, HLC fonds, MG28 I359, volume 48, “Publications” series, file 2, “Miscellaneous Recipes and Cookbooks n.d., 1942-1973.”

⁴⁴HLC, *Best Kinds of Meals*, no date, LAC, HLC fonds, MG28 I332, volume 125, “Conferences” series, file 3, “Nutrition. Correspondence. 1970-1973.”

“frozen and canned fruits make excellent substitutes for fresh fruits, except that they often have too much sugar or syrup added to be healthful.” Sugar’s status as an important vessel was challenged in this publication, which, distributed by a life insurance company rather than a governmental organization, was more likely to make stronger claims. It was indeed in the insurance companies’ interest to widen the definitions of dangerous eating in order to narrow the criteria for healthy eating, and therefore, healthy bodies. That may be why such a publication could and would voice still-unconfirmed concerns. The document indicated that:

the body can handle a certain quantity of sugar, but after that it converts excess sugar into fat, which causes obesity and contributes to other diseases. Sugar also encourages the development of tooth decay and may trigger the onset of diabetes. Recently it has been suggested as a factor in heart disease.⁴⁵

Note that it was not sugar but the fat to which it is converted that “causes obesity and contributes to other diseases.” Such phrasing left the door open for various interpretations of disease, including the dietary fat hypothesis.

In another insurance pamphlet of the 1970s, *What To Eat To Be Healthy*, the old warning reverberated that sugary foods were dangerous in that they displaced more nutritious food, but it also indicated a turn against carbohydrates in general, suggesting that Yudkin’s carbophobic theory had won some champions among writers of dietary advice. The pamphlet listed “bread and pastry”, “sugar, molasses, candy, jam, marmalade, etc.”, “macaroni,” and “potatoes” as examples of carbohydrate foods. This unflattering selection of carbohydrate-rich foods seems intentional when one considers other potential examples, such as fruits or grains. Rather than choosing foods with nutritious connotations as emblematic of carbohydrate-richness, the document instead focused on foods that supplied fewer nutrients and were associated with weight gain. Like *The Joy of Eating*, this publication also hinted at a modern civilization of excess that had to be tempered through responsible dietary decision-making:

Our chief source of energy in foods is carbohydrates; if we did not have them in the form of flours and sugars with their wonderful keeping qualities, our modern civilization – consuming, as it does, huge quantities of food – could not exist.

⁴⁵ Ruth Fremes and Zak Sabry, *The Joy of Eating: A Guide to Better Nutrition*, no date, LAC, HLC Fonds, MG28 I332 volume 126, “Conferences” series, file 2, “Nutrition. Pamphlets 1953-1978.”

However, we must be careful that, due to their use in tasty products such as cakes, pastries, jams, candies, etc., and their easy accessibility, we do not consume an excess of carbohydrates and thus crowd out the other food elements.⁴⁶

Such rhetoric intimates that unless we are on guard against sugar in its many tempting forms, we risk lapsing into sugar-eating frenzies, suggesting a certain addictive quality. As discussed above in regards to Harriman's rat experiments, the research basis for this idea existed for several decades, but we only see it emerging in respectable popularized form in the 1970s.

Conclusion

Despite a fairly consistent reluctance from experts to single out sugar as a culprit in disease, advice regarding its place in a healthy diet changed markedly from the end of the war to the mid-seventies. In popular nutritional advice since the 1940s, sugar has been depicted as a wholesome source of energy, as a benign appetite destroyer, as nutritionally cheap, as fattening, as potentially implicated in chronic disease, and as addictive. Considered a vaguely positive energy food prior to the war, sugar's micro-nutritional emptiness, and thus, superfluousness, were emphasized by governments aiming to minimize sugar consumption while supplies were difficult to obtain. This, timed with growing public concern about nutrition, initiated a shift in the way sugar would be perceived. By the 1950s, popular nutrition advice urged parents to restrict their children's intake of sugar and ensure it was only consumed after nutritious food had been eaten. As the 1960s progressed, individuals were no longer advised to round out their diets with sweets after meals. As rates of heart disease, diabetes, cancer and obesity increased amidst the post-war plenty, more restraint was preached. By the 1970s, the tone had changed dramatically and nutrition pamphlets contained hints about how to avoid sugar in the diet, as it had become something insidious, rather than a reward or a vessel. This may also speak to the fact that processed foods, which tend to be high in sugar, were making up a greater proportion of Canadians' diets in 1975 than they were in 1945. Additionally, one result of the low-fat craze was that as food manufacturers removed fat from their products, they added sugar in order to

⁴⁶ Sun Life Assurance Company, *What to Eat to Be Healthy*, from an address given to the Canadian Life Insurance Officers Association by Frederick F. Tisdall, no date, LAC, HLC fonds, MG28 I332, volume 126, "Conferences" series, file 2, "Nutrition. Pamphlets 1953-1978."

maintain palatability, so many processed foods themselves contained more sugar in the 1970s than they did in the 1940s.

However, even at the height of sucrophobia, Canadians were officially encouraged to cut down on, rather than completely eliminate, sugar. Advice writers, apart from lacking strong enough scientific evidence to recommend elimination, also recognized the risk of being rejected as puritans. Mariana Valverde argues “the temperance ethos that had given rise to prohibition” had been replaced by the Second World War by a Freud-inspired emphasis on what she calls an “enlightened hedonism” that recognized the importance of pleasure.⁴⁷ In her study of alcohol regulation, she indicates that in this “new, consumer-society formulation... the pleasure of consuming alcoholic drinks had now become a potentially positive, socially functional force to be channeled into healthy consumption.”⁴⁸ Similarly, the pleasure associated with eating sweet food ensured it a hallowed, if limited and clearly demarcated, place in modern Canadian diets and consumer culture. Post-war discussions surrounding sugar, much like discussions surrounding alcohol, or sexuality, struggled with the fine line between the prerogative to pleasure and the chaos of desire.

By emphasizing personal control and calling on individuals to control their consumption of it, Canadian nutrition experts in some ways exonerated sugar of any alleged inherently problematic qualities. This suggestion is based on Valverde’s assertion that Alcoholics Anonymous “shared the view held by social and medical scientists in the 1940s and 1950s that the problem of alcohol was not to be located in alcohol itself, but in the souls of that minority of drinkers who could not control their drinking.”⁴⁹ In much the same way, advice limiting sugar intake did not necessarily stem from any criticism of sugar itself, but from fear of the loss of control that resulted in the consumption of sugar to the point of harm. However, as the 1970s progressed, we do begin to see evidence that sugar had begun to take on an insidious characterization. Still, no government document ever called for its complete elimination from Canadian diets. Concern about sugar consumption paralleled concerns about rising levels of chronic disease as well as cultural concerns about the

⁴⁷ Mariana Valverde, *Diseases of the Will: Alcohol and the Dilemmas of Freedom* (Cambridge: Cambridge University Press, 1998), 96-97.

⁴⁸ *Ibid.*, 97.

⁴⁹ Mariana Valverde, “The Power of Powerlessness: Alcoholics Anonymous’s Techniques for Governing the Self,” *Moral Regulation and Governance in Canada: History, Context and Critical Issues*, ed. Amanda Glasbeek (Toronto: Canadian Scholars’ Press, 2006), 300.

wholesomeness of modern diets and modern lives. The next chapter looks at how food industry responded to the changing criticisms of sugar and tried to direct and influence nutritional advice

Chapter 4: Industry

This chapter looks at the way industry research groups such as the Sugar Research Foundation (SRF) responded to sugar's increasing exclusion from descriptions of healthy eating. As sugar was gradually removed from depictions of healthy diets, industry research groups fought to have alternative understandings of nutritional science publicized. Some of their maneuvering was quite clever. Rather than responding to criticism with contradiction, Sugar Information, the public relations arm of the Sugar Research Foundation, acknowledged the scientific basis of some criticisms and attempted to colour them as selling points – for example, sugar's spiking effect on blood sugar was touted as an effective and immediate means of battling hunger and fatigue. Criticisms that were firmly established, such as the notion that sugar caused tooth decay, were attacked indirectly through the promotion of municipal water fluoridation campaigns that shifted the locus of blame for dental caries from excess sugar to inadequate fluoride. This chapter engages with the fluid nature of science that swirls behind its solid face by looking at the differing ways in which the same data were interpreted by individuals and organizations with competing agendas. Industry foundations' attempts to use the trappings of science to establish the nutritional worth of their products were sometimes disingenuous and antithetical to the values of science, not only because they often involved selectively interpreting data or designing experiments to elicit particular results, but, more fundamentally, because their work invariably began with assumptions that the products they were peddling were beneficial, or at least harmless.

During the war, Dr. L.B. Pett of the Canadian Council on Nutrition had reached out to advertisers for help disseminating nutritional messages to the public. In the decades after the war, there remained a vague, lingering sense that the food industry had some sort of legitimate place in nutrition education. Such optimism assumed the interests of the consumer and the producer to be compatible, and accordingly was likely to take the health claims put forward by advertisers in good faith. A 1961 statement by Dr. W.A. Cochrane of the Halifax Children's hospital, where he treated scurvy, that "mass media advertising, more and more responsible for the choice of food, should be informed of the need to sell good health rather than a product," demonstrates how some health professionals encouraged

food producers to try and move their stock on the basis of its healthful properties, and believed that industry only needed to “be informed” to become beneficent.¹

The notion that there was some sort of a place for industry in nutrition education may have also have been a result of how well industry representatives and nutritionists were integrated within government agencies. It was difficult to separate industry interests from purely nutritional ones when government nutritionists worked closely with nutritionists employed by food companies. Industry provided employment for many nutritionists, who interacted with and advised their government colleagues. A 1961 Dominion-Provincial Nutrition Committee file lists and interviews nutritionists working for food producers, such as Corinne Trerice, who was employed by The Bakery Foods Foundation of Canada, an organization whose “consumer information and nutrition education program... is planned and carried out as part of the national public relations program of the industry.”² Here, nutrition education and public relations are conflated. This was presented as symbiotic rather than as potentially unethical by Trerice, who, when quoted in a 1959 newspaper article, stressed the importance of the food industry’s role in nutrition education by calling upon “food industries to assume more responsibility for educating the public with sound facts about food” in order to “combat the food fad problem.” Trerice:

pointed out that much of the information distributed by government and health authorities is ‘sadly lacking in practical application to daily living.’ She suggested that the ‘quacks’ and pseudo-scientists should be challenged with facts and truthful information, not only by government and medical authorities, but also by food industries.³

In categorically placing food producers alongside government and health authorities, Trerice imbued the former with the same sense of scientific objectivity consumers expected from the latter two. However, Trerice, by pointing out the shortcomings of other health authorities’ advice, aimed to further bolster the legitimacy of industry. There is a suggestion that food producers could better handle the job that

¹ “Doctor says: Mothers lacking knowledge about feeding children,” *Regina Leader-Post*, 20 June 1961, newspaper clipping located at Library and Archives Canada (hereafter LAC), The Canadian Dietetic Association (hereafter CDA) fonds, MG28 I209, volume 6, “Scrapbooks, 1959-1961.”

² Dominion-Provincial Nutrition Committee, *Minutes* (1961), LAC, Department of Health fonds, RG29, volume 3466, “Nutrition Division” series, “Minutes of the Dominion-Provincial Nutrition Committee (1959-1965).”

³ “Nutritionist Cities [sic] Risks of Food Fads”, *The Montreal Star*, Monday, October 24, 1959, newspaper clipping located at LAC, CDA fonds, MG28 I209, volume 6, “Scrapbooks, 1959-1961.”

government and medical authorities were allegedly performing inadequately. The sad lack “in practical application” to which Trerice refers may be the prudence by which governmental and scientific agencies were bound, which has been discussed in a previous chapter.

Industry representatives often attempted to cultivate and utilize personal relationships with nutritional authorities like Pett, who were charged with interpreting science to the public, in order to protect their interests from the unpredictable storm of emerging nutritional science. For example, after the screening of the sugar industry-commissioned film, *Crystal of Energy*, at the National Film Board in 1950, a representative of Canada and Dominion Sugar Company wrote to Pett, expressing how good it was to meet him, and asking that he not hesitate to get in touch with him or Dr. Robert C. Hockett, Scientific Director of the Sugar Research Foundation, “if at any time [he] desire[d] information on sugar or the Sugar Research Foundation’s research projects.”⁴

When writing to Pett to complain of some ill press, Joseph A. Whitmore, Managing Director of the Association of Canadian Bottlers of Carbonated Beverages, tried to soften his letter by reminding Pett of their friendly relationship, closing his letter with the hope that “the next time [he is] in Ottawa, [he] may have an opportunity of seeing [him] again.”⁵ It was not only government figures that the food industry courted. The managing editor of *HEALTH*, a magazine published by the Health League of Canada, wrote to a representative of Kraft Foods in 1959, thanking him “for the Perry Como record which arrived... safely for Christmas” and had been “played often” and “enjoyed by all.”⁶

Government nutritionists accepted such overtures because they themselves recognized that they were constrained, not only by the fragile trappings of their authority, but also by funding. Large food companies flourished in the post-war North American industrial food system, and as technological improvements and economies of scale fed

⁴ Correspondence between M.W. Davidson and L.B. Pett, February 25, 1950, LAC, Department of Health funds, RG29, volume 930, “Nutrition Division” series, file 386-4-2, “Nutrition Services. Foods. Sugar. June 1942 -June 1967.”

⁵ Correspondence between J.A. Whitmore and L.B. Pett, June 4, 1953, LAC, Department of Health funds, RG29, volume 930, “Nutrition Division” series, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

⁶ Correspondence between E.J. Coleman and Editor of *HEALTH*, December 28, 1959, LAC, Health League of Canada (hereafter HLC) funds, MG28 I332, volume 125, “Conferences” series, file 1, “Nutrition. Correspondence (Part 1 of 2) 1955-1964.”

larger and larger profits, big food industries had ample funds to finance research – funds government and universities were often lacking.⁷ In 1966, as Chief of the Nutrition Division of the Department of National Health and Welfare, Dr. J.E. Monagle wrote to John Sweeny of the Canadian Sugar Institute in Montreal, hinting that financial support from his organization would be a great boon for Canadian nutritional science, and indeed was necessary to its survival, given the small and fragmented nature of nutrition work in Canada. He reminded Sweeny that “the total number of nutritionists in Canada is quite small,” and that due to their professional isolation, many “experience considerable difficulty in keeping abreast of new developments,” but that “an annual institute or refresher course of 10 days to 2 weeks duration would greatly enhance accomplishment in their work.” He lamented that while “similar projects are carried by some of the universities in the U.S...they have a larger number of students to draw upon, larger faculties with broader interests, and often state or federal government support.” Monagle regretted that “a very few Canadian nutritionists receive bursary support to attend the institutes in the U.S.” and that “as a consequence institutes with topics pertinent to Canadian needs are missed.”⁸

The Nutrition Foundation

In that same letter to Sweeny, Monagle brought up the Nutrition Foundation and pondered the feasibility of a similar, Canadian-specific organization. The Nutrition Foundation is an industry-backed research foundation founded in December 1941, which, in its own words, “was incorporated by a group of leaders in the food industry who were conscious of the need for increased support of basic research and education in the science of nutrition.” The organization claimed its program to be “wholly in the public interest and fundamental in character, in accord with the spirit and purpose of graduate schools and medical centers in leading universities,” but its Board of Trustees in 1952 included high-ranking representatives from The American Sugar Refining Company, The National Sugar Refining Company, Coca-Cola, General Foods, Pepsi-Cola, Procter and Gamble, Canada Packers, Kellogg, Lipton, Stouffer, Pillsbury, Owens-Illinois Glass Company, Junket Brand Foods, Gerber, Heinz, Curtis Candy Company, and only a smattering of university and

⁷ Amy Bentley, *Eating for Victory: Food Rationing and the Politics of Domesticity* (Chicago: University of Illinois Press, 1998), 12; Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (Oakland: University of California Press, 1994), 129.

⁸ Correspondence between John Sweeny and J.E. Monagle, April 21, 1966, LAC, Department of Health funds, RG29, volume 930, “Nutrition Division” series, file 386-4-2, “Nutrition Services. Foods. Sugar. June 1942 -June 1967.”

government scientists. The foundation made twice-yearly grants to Canadian and U.S. universities and institutions, while member corporations contributed to the foundation “on a five year advance basis, to provide working capital and to permit planning.”⁹

Dr. William J. Darby, the foundation’s president in 1973, praised the “carefully selected and designed conferences, symposia and workshops” which constituted “effective means of action.” Such conferences were designed to “review existing knowledge, identify areas in which research is needed, and indicate ways in which knowledge gained from research can be applied to benefit man.”¹⁰ The first of these programs sponsored by the Nutrition Foundation was the “International Conference on Sugars in Nutrition” in 1972 at the Vanderbilt School of Medicine, where Darby was employed.¹¹

In his historical survey, Darby highlighted the Nutrition Foundation’s “leadership in stimulating exchange of nutrition knowledge” through “more popular media, such as press, radio and television” in addition to the journal it published, *Nutrition Reviews*.¹² *Nutrition Reviews*, a scientific journal established by the Nutrition Foundation shortly after its incorporation, was designed to be “a monthly review journal with reviews appreciably longer than abstracts, yet significantly shorter than the scholarly reviews appearing in *Physiological Reviews*. It was also planned that the reviews would be critical if necessary.”¹³ This mandate for a critical stance presented one means of heading criticisms off at the pass, as was so often the case with studies involving sugar. The manner in which unflattering studies regarding simple dietary carbohydrates were reported is worth noting, because the tone of those reviews seems less like proper scientific skepticism and more like industry-serving defense when one takes into account the number of sugar company representatives on the publisher’s Board of Directors. One 1965 *Nutrition Reviews* article exemplifies how such releases were often handled. The article admits that “studies of dietary trends in various population groups have suggested that as more refined carbohydrates are added to the diet and the more complex carbohydrates, such as starches, eliminated, there tends to be an increased incidence of coronary heart disease,” but that statement is essentially

⁹ Nutrition Foundation, *Annual Report* (1952), LAC, HLC fonds, MG28 I332, volume 125, “Conferences” series, file 14, “Nutrition Foundation Inc., Reports 1948-1952.”

¹⁰ William J. Darby, “The New Look,” *Nutrition Reviews* 31,1 (January 1973), 33.

¹¹ *Ibid.*

¹² *Ibid.*

¹³ Stare, Frederick J., “Forty Years of Nutrition Reviews,” *Nutrition Reviews* 40,11 (November 1982), 321.

dismissed when the author concludes that “unfortunately, other items in the diet also change, so that the amount of protein and fat varies as much as or more than, the type of carbohydrate.”¹⁴ While isolated incidents of this type of reporting can speak to the necessary prudence of scientific inquiry, in sum they add up to a publication that had dug its heels in against any sugary hypotheses of disease.

At best, studies damning sugar tended to be reported by *Nutrition Reviews* as indicating “one more parameter that should be considered when studying the effect of different carbohydrates on the metabolism of experimental animals.”¹⁵ At worst, evidentiary-based conclusions against sugar were simply omitted. One of the most telling examples of differences in reporting is in the way one particularly damaging study was handled by different authors. This study, which tried to account for the different rates of ischemic heart disease (IHD) and diabetes among émigré Yemenite Jews who had recently arrived to Israel and those who had been living in Israel for at least 20 years, was hailed by some anti-sugar scientists, like John Yudkin, as clear evidence of sugar’s harmful effects. Surveying the data in *Angiology* in 1966, Yudkin noted that A. M. Cohen had showed that “the increase in IHD among the earlier Yemeni emigrants to Israel during the 20 or so years that they had been in the country has been accompanied by a large increase in the amount of sugar they eat, but little change in the amount of fat; the type of fat changed from being mostly meat fat and butter to being a mixture that contained more vegetable fat.”¹⁶

However, when *Nutrition Reviews* examined that particular study, their abstract indicated that “diet surveys did not explain the increased incidence of diabetes and heart disease in Yemenite Jews who had lived in Israel for 25 years or more as compared to those who had lived in Israel less than 10 years.”¹⁷ The article acknowledged Cohen’s report of “a greater prevalence of diabetes mellitus [and IHD and hypertension] in Yemenites who had lived in Israel for over 25 years than in those who had arrived in the country recently,” but rather than identifying sucrose as the causative factor, as did Yudkin after reading the same study, the anonymous reviewer, even after mentioning that “the only difference noted

¹⁴ “Dietary Carbohydrate and Liver Lipids,” *Nutrition Reviews*, 23,6 (June 1965), 183.

¹⁵ “Dietary Carbohydrates and Glucose Tolerance,” *Nutrition Reviews*, 23,8 (August 1965), 246.

¹⁶ John Yudkin, “Dietetic Aspects of Atherosclerosis,” *Angiology*, 17,12 (February 1966), 128. According to the prevailing nutritional wisdom of the day, switching from animal to vegetable fat should have in fact lowered blood lipid levels and rates of heart disease.

¹⁷ “Diet and Incidence of Diabetes and Heart Disease in Yemenite Jews,” *Nutrition Reviews*, 20,6 (June 1962), 163.

between the diets was that the amount of sucrose consumed by the Yemenites increased markedly after they had lived for a long time in Israel,” insisted that researchers weren’t able to find any dietary cause for the discrepancy.¹⁸ The report concludes, somewhat surreptitiously, “the present study would indicate that the fat, protein and caloric content of the diets of the Yemenites in Yemen and Israel are not strikingly different. Thus, if there is a nutritional basis for the increased incidence of diabetes and heart disease, it must be dependent on nutrients not studied in the present work.”¹⁹ Through such maneuvering, *Nutrition Reviews* was able to protect the interests of those who contributed to the Nutrition Foundation, such as the aforementioned sugar producers.

The Sugar Research Foundation

The Nutrition Foundation represented the interests of a wide array of food producers, but specific industry foundations existed to forward their own interests, and they were often able to cooperate. The Sugar Research Foundation was formed in 1943 in response to sugar rationing propaganda that encouraged consumers to limit their use of the commodity, insisting that sugar was not a necessity.²⁰ During the war, various forces merged and threatened to fundamentally shift the way sugar was perceived: the emergence of nutrition as a public issue during the war; the sugar supply issues prompted by the war; and growing interest, both lay and professional, in micronutrients such as vitamins and other ‘protective factors.’ North American sugar producers were acutely aware of this threat, and responded by forming the SRF. In 1947, a public-relations division, Sugar Information, was formed to disseminate the results of the work commissioned by the SRF, so that the two arms worked in tandem under what was now called the Sugar Association.²¹ In 1968, the foundation welcomed international membership as organized sugar producers in other countries joined. The Canadian Sugar Institute (CSI) was incorporated in 1966 and

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ Hollander, Gail M., “Re-naturalizing sugar: narratives of place, production and consumption,” *Social and Cultural Geography*, 4,1 (2003), 65. For example, the “Canadian Fact sheet to Mr. and Mrs. Consumer,” which in a section titled “How does less sugar affect the health?” states: “sugar rationing cannot be regarded as a kitchen catastrophe” because “sugar is not an indispensable item in the diet. It supplies food energy in a palpable form but it has no vitamins or minerals.” (Italics in original.) This paralleled the strategy in the United States, where, according to Hollander, policy makers, familiar with the Newer Nutrition, explained that sugar was not a necessary component of the diet in their attempts to facilitate its rationing.

²¹ In July 1968, the SRF became the International Sugar Research Foundation as sugar companies from around the world joined forces to combat the growing tide of sucrophobia

is still a member of the International Sugar Research Foundation (ISRF) or, as it is now more commonly known, the World Sugar Research Organization.

An early document from the SRF articulates worries about the potential of war rationing to change the paradigm in which sugar consumption was viewed, and states explicitly that the Sugar Research Foundation was “formed to solve this problem.” Its “purpose and function” would be to

A) Inform and educate the public on the merits of sugar, its value, function and place in the diet;

B) Secure all of the available data in connection with sugar as a food; its value and importance in the human diet; its cost from a food value standpoint as compared with the cost of other commodities;

C) Engage research men where necessary for the purpose of dietetic analysis and medical study of sugar and its by-products; engage men for the coordinating, classifying and compiling of all the data developed by the research men engaged by or working for the FOUNDATION, the sugar industry, or other industries; and engage any others necessary in the furtherance of this program;

D) Endow fellowships at universities and selected institutions for the intensive study of sugar and its importance to human welfare;

E) Combat and counteract unfair, misleading and unethical advertising or propaganda against the use of sugar

...

G) Transmit to the public, through advertising or other media, the information secured and developed by the FOUNDATION so as to promote and protect the public safety and health.

The brochure demonstrates a clear intention to fight science with science in order to address the challenges of marketing a product with limited nutritional value at a time when nutrition was becoming officially recognized as important enough to merit public concern. An emphasis on science as the gatekeeper of consumer acceptance is articulated elsewhere in the brochure, when it asks:

Can new markets be found for sugar? / Are there health reasons for restricting the use of sugar? / Can sugar’s competitors be outflanked?

These are hard questions, and others like them, are matters of concern to producers in more than sixty countries around the globe because the answers inevitably affect the well-being of the industry. Answers need to be found – and they must be rooted in solid fact. Nothing less is acceptable in a science-oriented world.

The brochure proudly reassured its readers that “fortunately, the mechanism for fact-finding already exists the International Sugar Research Foundation, Inc., a non-profit, membership corporation,” and listed the foundation’s major objectives as such:

1. To conduct research and investigations relating to the uses of sugar and other sweetening agents in food and beverages, in non-foods, and as ingredients or raw materials in the chemical and manufacturing industries. (Implicit in these objectives is the study of the place and value of sugar in nutrition and public health.)
2. To disseminate as widely as possible accurate information from the results of research with respect to the use, purpose and effects of sugar and its competitors.²²

These twin statements of purpose suggest that the endeavour was never a purely scientific one. Rather, science, or the language and semblance thereof, would be utilized as a marketing tool to promote sugar consumption. For obvious reasons, the assumption that sugar is harmless, or perhaps even beneficial to human health, is maintained, even in these vague statements of intent.

The foundation was prolific. Its 1968 brochure boasted that in the years since its inception, the SRF had produced nearly 700 technical papers and had given “financial support to nearly 280 research projects at educational institutions, hospitals, and commercial laboratories in the United States, Canada, England, Scotland, Ireland, and the British West Indies. More than \$5,000,000 was spent in the work.” Of the sixteen SRF grant holders in 1956, the most prominent was Dr. Frederick J. Stare, at Harvard University of Public Health, whose task was to study “obesity, appetite, and the role of sugar in reducing diets.”²³ The results of this work were used to hail sugar as a diet aid: Stare published articles in newspapers across North America advocating regular consumption of soda for those who wanted to lose weight.²⁴ Stare illustrates the murky connections between

²² International Sugar Research Foundation, Brochure (1969), University of Illinois Archives, Papers of Roger Adams. As displayed at <http://www.motherjones.com/documents/493727-isrf-brochure#annotation/a79784>

²³ “Sugar Research Foundation Inc. Grants,” *The International Sugar Journal* 58,688 (April 1956), 56.

²⁴ Articles appearing in Frederick Stare’s weekly column, “Food and Your Health,” which was printed in Women’s Sections of newspapers across North America, often defended sugar against detractors, and even glorified it as being nutritionally invaluable. See “Prescription: Three Snacks a Day,” *Toledo Blade*, September 22, 1966; “Teen Diets Poor?” *St. Petersburg Times*, February 22, 1968; “The Fat in Your Life,” *Milwaukee Journal*, February 11, 1963 for examples. Stare was also frequently quoted in other articles. See “Is your sugar thermostat too low?” *Daytona Beach Morning Journal*, October 15, 1953; Dr. William Brady, “Sugar Level Vital to Health,” *The Milwaukee Sentinel*, October 22, 1958; or David Zinman, “Sugar’s greatest harm may be what it keep’s [sic] you from eating,” *The Spokesman-Review*, October 13, 1977. All articles located on *Google News Archive*.

industry and science. He was an influential nutritionist with a syndicated newspaper column, and the founding editor of the industry-linked *Nutrition Reviews*. But unlike Trerice, whose affiliation with The Bakery Foods Foundation was regularly listed among her accreditations, Stare was always presented as being representative of the Harvard School of Nutrition, rather than of the Nutrition Foundation or the SRF. The Harvard School of Nutrition repeatedly received grants from the Sugar Association, and its relationship with the SRF spanned decades.²⁵ As evidenced by a memo to the Sugar Association's public relations department in 1975, the association was aware that this relationship could be perceived with suspicion. The association was about to mail out a press release, "Sugar in the Diet of Man," and anticipated questions in regards to its compilation. The memo asked members to "be aware of the following answers, should they be put to [them]":

1. Who inspired the writing of the six papers?
Ans. Dr. Frederick Stare of Harvard suggested the need for this research and offered to organize their preparation.
2. Is Dr. Stare on your payroll?
Ans. No.
3. Do you contribute to Harvard's School of Public Health?
Ans. Yes, with an unrestricted grant. We also contribute to other organizations in the same manner.
4. Did you pay for the preparation of the papers?
Ans. Yes. At the time Dr. Stare asked us if we would be interested in the project, he asked us if we would be willing to fund it. We paid for research time, as we would with any research project, and purchased reprints.
5. Does the fact of your funding compromise the papers?
Ans. No. We did not consider distribution of them until they had been accepted for publication by the journal, World Review of Nutrition and Dietetics. We feel the reputation of the doctors and their organizations and the prominence of the organ of publication attest to their accuracy and integrity.²⁶

Looking back at forty years of *Nutrition Reviews* in 1982, Stare articulated the difficulty in keeping separate the histories of this "distinguished, widely circulated and widely read nutrition journal" and "the history of Harvard's Department of Nutrition because they both began at about the same time."²⁷ He indicated that "plans to develop both the Nutrition Department at Harvard and *Nutrition Reviews* had been developed during the

²⁵ "Sugar Research Foundation Plans for 1959/60," *The International Sugar Journal* 61,729 (September 1959), 255.

²⁶ The Sugar Association, "Confidential Memo to the Public Communications Committee," dated July 17, 1975, Colorado State University, Agricultural Archive, Records of the Great Western Sugar Company, Colorado. As displayed at <http://www.motherjones.com/documents/472453-confidential-memo-to-the-public-communications>

²⁷ Stare, "Forty Years of Nutrition Reviews," 321.

previous year,” suggesting the plans have had a common industrial origin.²⁸ Whether from gratitude or conviction or mandate or coincidence, Stare tended to defend the interests of the industry organizations that had been involved in setting up his department. Upon his death in 2002, Stare was described by *The Economist* as a “defender of the American diet” because of his unwillingness to charge any particular foodstuff with causing obesity and chronic disease.²⁹ This stance was in line with material commissioned by the Sugar Association that insisted that sugar was no different than any other food, and that too much of anything was harmful. Stare and the Sugar Association often offered similar dietary advice, especially to those looking to lose weight. A 1954 article features Stare’s recommendation to take “soft drinks or milk at tea time as a good way to build up blood sugar and keep the calory [sic] consumption low.”³⁰

While he eventually ceased advocating soda as a diet aid, Stare’s benevolence towards sugar continued over many decades. One 1977 article described Stare as a “prominent nutritionist who... thinks sugar has been maligned... He says that the case against sugar comes largely from hypotheses, incomplete data, data from animal studies and data which are simply erroneous but repeatedly disseminated to the public as facts applicable to man.”³¹ The article quotes Stare as having said that “there are hazards in foods... but they don’t come from sugar or additives” and indicates Stare believed “up to 25 to 30 per cent of our calories can safely come from sugar – that is, primarily from sucrose and corn syrup – as long as nutritional needs are being met.”³²

In 1974, when anti-sugar rhetoric was flying high, Stare led a “blue ribbon panel of experts” at a national newspaper food editors’ conference in Dallas, in a talk called “EXPLODING myths associated with Sugar – Obesity, Heart, Diabetes and Dental Caries,” which was produced by the Sugar Association, ostensibly to win over food editors.³³ He carried the torch for decades, even after retiring from his professorship. In 1984 he was

²⁸ *Ibid.*

²⁹ “Frederick Stare,” *The Economist*, April 18, 2002, <http://www.economist.com/node/1086689>

³⁰ Cox, Claire, “Sounds Like Great Idea,” *The Windsor Daily Star*, February 4, 1954, *Google News Archive*.

³¹ David Zinman, “Sugar’s greatest harm may be what it keep’s [sic] you from eating,” *The Spokesman-Review*, October 13, 1977, *Google News Archive*.

³² *Ibid.*

³³ Carlson, Katie, “Kitchen Talk – about Sugar, Apples, Rice and Pet Food,” *Daytona Beach Morning Journal*, November 7, 1974, *Google News Archive*.

featured in an article heralding “the news that sugar is not only good for you, but that you were actually born craving the sticky, white stuff.” It read:

Professor Frederick Stare, Emeritus Professor of Nutrition at Harvard University, is here to proclaim that it is “non-science” to assert that sugar is some kind of poison.

Research has proved that human infants are born with a taste for sweetness, he says. This has been done by taking photographs of two-hour old infants ‘breaking into a great big smile’ when a solution of water and sugar is dabbed on their lips.

‘Now, if that doesn’t prove that infants are born with a likeness (sic) for sugar, what the hell does,” the professor announced yesterday.’³⁴

That by the 1970s and 1980s figures like Stare were taking this defensive, naturalizing stance indicates that both popular and professional attitudes were turning against sugar. While most nutritionists did not harbour any illusions about sugar being a nutritious food, their treatment of it as an energy food in the 1940s and early 1950s indicates that it was not yet considered harmful, and indeed was pleasantly benign.

Marketing

As sugar’s reputation soured, sugar marketers attempted to manipulate fears about the sweet stuff into selling points. Where the science could not be fudged, it was met head on and co-opted. Sugar Information was responsible for disseminating the messages and interpreting the results of industry-sponsored studies for a lay public. Sometimes, the efforts were subtle, as demonstrated by a 1947 press release about the effects of sugar on caffeine, which quieted caffeinated arguments about giving kids cola. Titled, “Sugar in Coffee Dulls Its Pep-up, Prevents Jitters,” it advised, “if coffee makes you jittery, drink it sweetened or eat sweets with it.”³⁵ Noting that “sugar neutralized the action of the caffeine to a large extent” subtly subdued concerns about children’s caffeine consumption through colas – a concern that was often articulated by nutritionists and school nurses.³⁶ The sugar in the cola, also a documented concern for health workers, here becomes somehow desirable because it mitigates the effects of the caffeine.

³⁴“Sugar Craving,” *The Age*, April 11, 1984, *Google News Archive*.

³⁵ “Sugar in Coffee Dulls Its Pep-up, Prevents Jitters,” *Pittsburgh Press*, May 20, 1947, *Google News Archive*.

³⁶ LAC, Department of Health funds, RG29, volume 933, “Nutrition Division” series, file 386-4-12, “Nutrition Services. Foods. Soft Drinks Oct 1947 - May 1963.” This file contains several letters from health professionals concerned about the presence of soft drinks in schools, enquiring about both the sugar and the caffeine content of these drinks.

But more often, industry attempts to encourage sugar consumption were much more obvious. Perhaps their boldest venture was the presentation of sugar as a diet aid. In December 1956, the *International Sugar Journal* ran an item describing a 1700-line newspaper advertisement that represented “the latest stage in the programme designed by Sugar Information Inc. to combat general misconceptions on the fattening effects of sugar.”³⁷ Titled “New Concept in Weight-Control”, the ad “stressed the fact that weight reduction is easier to achieve and maintain by reducing portions rather than completely giving up various foods and that sugar ‘can often help make it easier for you to cut down’ by keeping hunger satisfied on less food.”³⁸ Here, an established criticism of sugar, that it ruined appetites, was turned on its head. This program had already been in motion for some years. In 1954, a lengthy article in the *Windsor Daily Star* indicated that, according to Neil Kelly, vice-president of Sugar Information Inc., “anyone can lose weight if he eats enough rich food between meals.” Kelly said, “it’s not a bad idea, in fact, to start out the day by topping off bacon and eggs with a slice of pie a la mode or a gooey dessert.” He goes on to say that “scientific research financed by the organization has disclosed there isn’t a grain of truth to the popular theory of dieting by hunger,” and that “experts have concluded that a bon-bon or two or even a dish of creamy rich ice cream is a suitable between-meals snack for a dieter.” Kelly explained that the idea was:

never to be hungry – and never to be full, either... By nibbling cheese and crackers, an apple or a piece of Lady Baltimore cake at mid-morning and afternoon, a dieter not only keeps going on an even keel but is not likely to eat very much when time for a six-course dinner rolls around.³⁹

The article propagated the idea that “it doesn’t matter what a person eats, as long as he doesn’t consume as many calories as he did when he was putting on weight.” Over the following decades, the notion that it was only the quantity, and never the quality, of food that contributed to obesity was promoted by Sugar Information and others. The *Daily Star* article suggested that sugar, because it was absorbed so quickly into the blood stream, could actually be a boon for dieters. Stare and the Harvard University School of Public Health were referenced in regards to their research, which simply indicated that “when there is plenty of sugar in the blood, hunger is not present.” Stare suggested that because “the appetite is stimulated when blood sugar levels are low... sensible, reducing diets... should maintain the

³⁷ “U.S. Sugar Advertising,” *The International Sugar Journal*, 58,696 (December 1956), 347.

³⁸ *Ibid.*

³⁹ Cox, “Sounds like a great idea.”

blood sugar at a level at which over-eating is not an ever present temptation.”⁴⁰ That blood sugar maintenance does not require the specific consumption of refined sugar is artfully obscured.

A similar item appeared in *The Sunday Sun* in 1955 which insisted sugar should not be avoided if “you’re watching out for those extra pounds that make you easy prey for heart disease, high blood pressure and other ailments which life-insurance companies have found to be more prevalent among over-weight people.” The article was titled “Eat More Sugar, And You’ll Trim Off That Excess Fat.” Once again, Stare was featured in this article as “chairman, department of nutrition, Harvard University, and an internationally recognized authority in the field of nutrition.” He implied once again that “overweight is not caused by any one food. It is the net result of eating too much of everything.” Under the heading “SUGAR CUTS APPETITE”, it read:

The Harvard School of Public Health, working in co-operation with the United States public health service, has documented the simple fact that healthy people are apt to get ravenously hungry when their blood sugar level is low. And sugar or sugar-containing foods and beverages act fastest in raising that level. Research conducted at Harvard shows that sugar taken before meals raises the blood sugar level and thereby reduces the appetite. This makes it easier to eat less of everything.

The article provided the following information from Sugar Information Inc. as “several important facts about the sweet stuff which usually come as a surprise to most dieters:”

1. There are only 18 calories in each level teaspoonful of sugar.
2. Sugar in the sugarbowl is identical with that most commonly present in such familiar fruits as oranges, apples, bananas and pineapple.
3. Sugar is assimilated into the bloodstream and generates energy faster than any other food. It relieves hunger because it raises the blood sugar level almost immediately.⁴¹

In what we would now recognize as a cruel irony, the article encouraged readers to watch their weight because there was “conclusive evidence that overweight shortens one’s life,” and quoted mortality statistics from Metropolitan Life Insurance Company to drive the message home. Even though the Sugar Association was clearly indicated as the source of the article’s information, the allusions to scientists and researchers, the matter of fact tone and the very presence of such information in a newspaper, an trusted source, would have

⁴⁰ *Ibid.*

⁴¹Edward McGuire, “Eat More Sugar, and You’ll Trim Off That Surplus Fat,” *The Sunday Sun*, July 13, 1955, *Google News Archive*.

certainly complicated popular perceptions of this least nutritious of foods. These attempts at complication would have been effective precisely because they did not challenge what nutritionists had been saying – that sugar ruined the appetite, for example, but actively reinforced that criticism and turned it into a selling point. The Sugar Association turned the criticism that sugar provides nothing but calories on its head with their slogan “18 calories – and it’s all energy.” For these kinds of PR gymnastics, they were presented with several advertising awards, such as “one of the annual Awards of the *Saturday Review* as an outstanding example of institutional advertising for the enlightenment of the public” in 1955, and the Public Relations Society of America’s Silver Anvil Award in 1976.⁴²

The Sugar Association insisted that people needed sugar, and under Sugar Information, published ads that encouraged mothers to make sure that their children consumed adequate sugar every day. Sugar was promoted as a healthy, natural product, particularly in comparison to artificial sweeteners, which the Sugar Association claimed in 1960s advertisements active children needed “like a turtle needs a seatbelt” or “like a Beetle needs a hairpiece.”⁴³ In 1967, the Canadian Sugar Institute published a booklet called *The Story of Sugar*. The booklet explained “why man needs sugar” in terms that borrowed from the lexicons of both the scientific and the natural notions of health to hit consumers from every angle and make sugar seem indispensable to the diet. The book reminded readers that:

Life is sustained on earth by the energy of a sun 93,000,000 miles away in space. In the plan of nature, the sun sends its energy to earth via light rays. These rays act on microscopic cells in the leaves of green plants to produce sugar... When man eats the plants the converted sugar, vitamins and minerals in the plant help him grow, fight disease and repair tissue.

The book conceded that “all foods – proteins fats, vitamins (but not minerals) – contain some fuel” but claimed that “sugar, however, provides fuel more quickly, in greater abundance, with less waste and in a more completely combustible form than any other food. It is the preferred fuel of the muscles and the only fuel of the brain.”⁴⁴

The Story of Sugar imbued sugar with an aura of timelessness, even though humans have only been consuming refined sugar for about two hundred years. The book states that “since

⁴² “Sugar Advertising Award,” *International Sugar Journal* 57,685 (November 1955), 419; “The Sugar Association, Inc.,” Public Relations Society of America. Accessed 22 July 2014.

<http://www.prsa.org/Awards/SilverAnvil/#.Uijh947hAy4>

⁴³ Sugar Association, Advertisement, *Time*, March 4, 1966.

⁴⁴ Canadian Sugar Institute, *The Story of Sugar*, Montreal: 1967.

earliest times man has required sugar; and he discovered, that although all plants make sugar, only sugar-cane and sugar-beets economically make enough to fulfill the vast fuel and energy requirements of an active world population.”⁴⁵ Even though refined sugar had only been in the diet for a brief time, marketers tried to conflate it with glucose, which the body and the brain utilize, that is available in all plant foods, and insist that it was necessary for human survival: “SUGAR – the preferred fuel of the muscles and the only fuel of the brain... you are right to like it... you need it!”⁴⁶

While the Sugar Association furthered its own claims, it was also constantly on the watch for detractors. In 1964, *The International Sugar Journal* reassured its readership that Yudkin was a nothing but a sensationalist:

Dr. J. Yudkin, Professor of Nutrition and Dietetics in the University of London, recently published an article in the British medical journal, “The Lancet”, which purported to indicate a possible causal relationship between sugar consumption and ischaemic heart disease. Such an article might normally have been allowed to remain unnoticed by the general public and the sugar industry; however, further publicity has been given to the proposition by a radio broadcast and a press conference given to newspapers. Consequently it might be as well to examine the evidence reported.

Prof. Yudkin had first drawn attention to the close parallel between the rise in fat and sugar intakes with increasing income per caput for 41 countries, using F.A.O. data...From this premise he is then quoted as making the following statements: [Daily Telegraph, 17th July 1964] “More than 100,000 lives a year could be saved if everyone gave up sugar... Death lurks in a tea cup... The less (sugar) you eat the safer you are”. But, examining the evidence more closely suggests that these statements, and even the basic premise, are not supported... even if a relationship had been firmly established (and we would not agree that it has), it is still a matter of conjecture whether high sugar consumption causes the heart disease or *vice-versa*.⁴⁷

Other Strategies: Fluoridation

Another strategy the Sugar Association deployed was to deflect blame from sugar via displacement or distraction. One clever means of accomplishing this was through the promotion of municipal water fluoridation, which would shift the blame for dental caries from an excess of sugar to a deficiency of fluoride. The only group of experts that more or less agreed that sugar was undesirable was the dental profession. This was well-known and

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ “Sugar and Heart Disease,” *The International Sugar Journal* 66,787 (September 1964), 277.

widely acknowledged by the sugar industry, as demonstrated in this survey of professional opinions surrounding sugar commissioned by the Sugar Association, which stated:

Dentists, as a group, display more negative attitudes toward sugar than any of the other opinion leader groups studied. Nine out of ten dentists believe that sugar consumption in the United States is too high... The basis for these attitudes toward sugar lies in the fact that dentists regard sugar consumption as the second most important cause of tooth decay.⁴⁸

These were the only well-established grounds against sugar consumption, and as such, were often called upon by nutritionists who wished to discourage the use of sugary foods for any reason. When solicited for advice regarding sugar, Pett and others often relied on the uncontroversial science of tooth decay. In 1951, Pett wrote in response to someone who had inquired regarding the dangers of soft drinks. He enclosed materials from the Dental Health Division explaining the “basis of their opposition to soft drinks,” which indicated that “the sugar which all soft drinks contain” could “aggravate the widespread problem of dental decay.”⁴⁹ In 1956, responding to Mrs. Frances I. Rice, a school nurse with the Pontiac County Protestant Central School Board who was trying to prevent the sale of soft drinks in her district, Pett suggested that “the dental decay argument is the best one under the circumstances.”⁵⁰ A pamphlet on child nutrition from the early 1950s bears the same refrain: “customary food for children provides generous amounts of pie, cake, candy and other sweet foods. This is of great concern to members of the dental profession who know that the use of sweets in excess is an important cause of dental caries.”⁵¹

Sugar producers therefore had an interest in disproving claims about sugar’s effect on dental health. Excerpts from *The International Sugar Journal* show a preoccupation with

⁴⁸ “Attitudes Toward Sugar, A Study Conducted for The Sugar Association and The International Sugar Research Foundation,” (March 1974), Colorado State University Agricultural Archive, Records of the Great Western Sugar Company, Colorado. As displayed on <https://archive.org/details/486416-executive-summary-attitudes-toward-sugar-poll>

⁴⁹ Correspondence between L.B. Pett and F. G. Patten, September 12, 1951, LAC, Department of Health funds, RG29 volume 933, “Nutrition Division” series, file 386-4-12, “Nutrition Services. Foods. Soft Drinks Oct 1947 - May 1963.”

⁵⁰ Correspondence between F. Rice and L.B. Pett, October 3, 1956, LAC, Department of Health funds, RG29, “Nutrition Division” series, volume 933, file 386-4-12, “Foods. Soft Drinks, October 1947 – May 1963.”

⁵¹ Ontario Interdepartmental Nutrition Committee, *Good Food for Every Child*, no date, LAC, CHEA funds, MG28 I359, volume 15, “Committees” series, file 1, “Nutrition Committee: Correspondence, 1951-1954.”

sugar's role in dental health and how it could be spun. For example, in January 1950, this item ran under the Brevities section:

Dr. Pauline B. Mack, of the Pennsylvania State College, in two year studies of three groups of children in charitable institutions, tested the effects on dental health of three varied diets. Dental decay was observed to be the greatest with the diet having the lowest intake of sugar and the lowest calorific content. On the other hand, the boys in the institution having the liberal allowance of sugar in the ration had the best teeth.⁵²

One wonders whether the low-sugar, low-calorie diet that produced the most caries was also so nutritionally deficient as to encourage such lesions, while the boys with the "liberal allowance of sugar" also benefited from a liberal allowance of the vitamins and minerals necessary for the maintenance of dental health.⁵³ Such sparse reporting lends a veneer of scientific objectivity in which only the facts matter, and obscures the way those 'facts' were produced.

An October 1955 item suggested that the notion sugar causes tooth decay was outdated:

the Miller theory of 1890 suggested that fermentable carbohydrate foodstuffs which had been allowed to collect about the teeth underwent fermentation, with the production of acids which dissolved the inorganic constituents of the enamel of the teeth, thus leading to caries. This theory is still widely held by many dentists, but many believe that other important factors are involved, including the structure of the teeth, general body metabolism, and the effect of fluorides.⁵⁴

While most dentists and doctors considered the link between sugar and tooth decay to be fairly uncontroversial, occasionally a health professional would make claims in line with those voiced by the sugar industry. In 1949, Montreal pediatrician Dr. Alton Goldbloom

⁵² "Sugar and the Teeth," *The International Sugar Journal* 52,615 (January 1950), 16. The discussed study was published in *The Sugar Molecule*, 3,3 (1949), 3-8.

⁵³ Prior to the instatement of research ethics guidelines in the 1970s, studies that denied subjects necessary medical intervention, or studies that were otherwise injurious to subjects, occurred in North America. Most often, such experiments were performed on vulnerable persons, for example, institutionalized, impoverished, or cognitively impaired persons. In the United States, the Tuskegee Syphilis Study (1932-1972) and the Willowbrook School Hepatitis Studies (1956-1972) are well-known examples. See Ian Mosby, "Administering Colonial Science: Nutrition Research and Human Biomedical Experimentation in Aboriginal Communities and Residential Schools, 1942-1952" in *Social History*, 66,91 (May 2013), 145-172, for examples of Canadian studies (in which L.B. Pett himself was involved) based on withholding medical treatment, or in this instance, particular nutrients, for the purposes of scientific examination.

⁵⁴ "The Effect of Sugar Supplements on Dental Caries in Children," *The International Sugar Journal*, 57,682 (October 1955), 385.

insisted that sugar should not be singly blamed for tooth decay, because it was naturally present in fruits and vegetables, which would then also have to be disparaged.⁵⁵ An article subtitled “No Proof That Sugar Makes Teeth Decay” reported that:

an eminent Montreal pediatrician said that despite “unfortunate publicity” to the effect that sugar causes dental decay, the idea has not been substantiated by scientific proof.

Dr. Alton Goldbloom, professor of pediatrics at McGill University and physician-in-chief at the Children’s Memorial Hospital here said there is no scientific proof of any kind that consumption of sugars bears any relation to dental caries or decay.

...He said if it were true that we must not eat sugar to prevent dental decay, there is a logical reason for not eating fruit of any kind.

‘Bananas, prudes and dates,’ he declared, ‘contain 20 percent sugar, and baby’s milk, in formula, seven to eight percent. This extended to an adult, is equivalent to 1 ½ or two pounds of sugar a day... even bread is rapidly converted from starch into sugar.’⁵⁶

Though I have found no indication that Goldbloom’s statements were prompted by financial support from the sugar industry, some publications and studies absolving sugar clearly indicated the source of their funding. One study by SRF-funded scientist John Haldi of Emory University acknowledged “the support given this study by grants-in-aid” from the Sugar Research Foundation.⁵⁷ This study challenged assertions that a high sucrose diet was necessarily responsible for dental caries. Haldi indicated that, in one of his previous studies, “the incidence and extent of dental caries in Wistar strain albino rats fed a purified high sucrose diet were found to be considerably less than had been reported by Sognaes (’48) for rats of the Long Evans strain fed a similar purified diet.”⁵⁸ Both diets contained the same amount of sucrose and were allegedly “adequate for growth and for the maintenance of normal health” but “differed qualitatively in some details with respect to their fat, protein, mineral and vitamin contents.”⁵⁹ A review of the charts reveals that, in fact, Haldi and Wynn’s diet was in many respects much more nutritious than Sognaes’s, but this is never

⁵⁵ This was a harbinger of the discourses of naturalness and sameness that would be employed over the following decades by sugar marketers who tried to conflate their product with the naturally occurring sugars inherent in all plant and dairy foods.

⁵⁶ “Doctor Denies Dental Theory,” *The Windsor Daily Star*, Oct 26, 1949. *Google News Archive*.

⁵⁷ John Haldi, Wynn Winfrey, James H. Shaw and Reidar F. Sognaes, “Difference in the Caries-Producing Effects of Two Purified Diets Containing the Same Amount of Sugar,” *Journal of Nutrition* 50,2 (June 1953), 274.

⁵⁸ *Ibid.*, 267.

⁵⁹ *Ibid.*

articulated in the text, and the possibility that these nutrients may have mitigated the effects of the sucrose on dental health is not suggested. Researchers noted that “the incidence of caries in the cotton rats on the stock diet was much lower than on either purified diet,” which should clearly signal the cariogenicity of sucrose.⁶⁰ Instead, the researchers emphasized that even though both sucrose diets produced more caries than the stock diet, because they did so to differing degrees, sucrose content could not be a reliable predictor of caries activity, insisting that “since [their] experiments definitely show a difference in cariogenicity related to constituents of the diet other than sugar, it remains to be determined what these constituents are and in what manner they make the teeth more or less resistant to dental caries.”⁶¹

Certainly the sugar industry was very interested in severing the association between sugar consumption and tooth decay, and was hopeful that technological advances would make the discouragement of sweets unnecessary. In 1970, *The International Sugar Journal* optimistically discussed plastic tooth paint as a means of “eliminating this valid criticism of sugar in the diet” while in 1971, the journal ran an item heralding ‘Anticay,’ a “sugar derivative for tooth decay reduction.”⁶² But water fluoridation turned out to be the cavity-fighting technology in which sugar producers were most interested because it shifted the focus of the causes of tooth decay from a presence of sugar to an absence of fluoride. *The International Sugar Journal* revealed that within its first ten years, the SRF stimulated “a campaign to reduce tooth decay by fluoridation of water supplies.”⁶³ Support for fluoridation extended past industry; it was widely supported by professional organizations as well, including the Canadian Dental Association, and the Canadian Medical Association. However, while most professional organizations officially endorsed water fluoridation, individuals within them did not always agree. For example, in 1953, the president of the Canadian Medical Association, Dr. C.W. Burns, made “some off hand remarks” that were “reported widely as expressing opposition to fluoridation.” This placed the CMA “in an embarrassing situation.” The CMA’s General Secretary, A.D. Kelly, did not appreciate that the organization was “being quoted on the one hand as reluctant and half-hearted advocates of

⁶⁰ *Ibid.*, 271.

⁶¹ *Ibid.*, 273.

⁶² “Sugar and tooth decay,” *The International Sugar Journal* 72,853 (September 1970), 288; “Sugar derivative for tooth decay reduction,” *The International Sugar Journal* 73,867 (November 1971), 352.

⁶³ “Sugar Research Foundation Celebrates 10 Years,” *International Sugar Journal* 55, 671 (August 1953), 227.

fluoridation and on the other as opponents of fluoridation.”⁶⁴ Pett had also expressed some fears about water fluoridation, which we can interpret from his correspondence with the Department of National Health and Welfare’s Dental Health Division’s Dental Consultant, Dr. H.K. Brown, who provided feedback on Pett’s proposed article on water fluoridation. From Brown’s feedback, we have indications that Pett, like many of those opposed to fluoridation, used the rhetoric of “mass medication.” Brown argued against this designation, and argued that “this term is incorrect, since fluoride is not added to a water supply as a curative agent.” Pett disagreed, circling the word ‘curative’ in red pencil and noting in the margins, “much medication not curative.” He also marked up Brown’s last paragraph, which indicated that “the mechanical equipment used to add fluoride to water is so designed that its capacity is related directly to the gallonage of water pumped per day,” and that as such, “the maximum capacity of such equipment absolutely precludes the possibility of fluoride concentration reaching levels hazardous to health, through mechanical failure.” Pett’s circling of the phrase ‘so designed’ may indicate that he received Brown’s reassurances with some suspicion. Brown, for his part, criticized a section of Pett’s proposed article, complaining,

this paragraph appears to express a warning while at the same time saying that we know no basis for fear. It is my opinion that if it is intended to utter a warning an effort should be made to place the facts in true perspective in relation to the hazards and lack of full information in relation to other public health measures in common use.⁶⁵

Brown obviously assumed that water fluoridation was safe and useful. Pett did not.

Views on sugar consumption and fluoridation tended to overlap. Where lax attitudes toward (or financial support from) sugar were found, so too were pro-fluoridation views. Stare, for instance, advocated fluoridating water supplies while a more cautious figure like Pett remained critical. Stare recounted that a review in the first issue of *Nutrition Reviews* entitled, “Vitamin D and Tooth Decay” began, “no subject in nutrition is more controversial, or in more need of clarification than our ideas of the cause and prevention of tooth decay,” when in fact “the cause and prevention of tooth decay” were among the few well-established

⁶⁴ Correspondence between E.H. Bensley and A.D. Kelly, November 23, 1953, LAC, Department of Health funds, RG29, volume 933, “Nutrition Division” series, file 386-4-13, “Nutrition Services. Foods. Fluoride. Feb 1952 - 1953, 1954 - Apr 1967.”

⁶⁵ Correspondence between L.B. Pett and H.K. Brown, 1953, LAC, Department of Health funds, RG29, volume 933, “Nutrition Division” series, file 386-4-13, “Nutrition Services. Foods. Fluoride. Feb 1952 - 1953, 1954 - Apr 1967.”

nutritional ‘truths’ of the day (unless, of course, you asked the sugar industry).⁶⁶ Stare noted that the discussion then had centered on Vitamin D from cod liver oil, and that “fluoride was not even mentioned because fluoridation did not begin until a few years later.”⁶⁷

Fluoridation was a valuable weapon in the industry’s arsenal, capable of combating both tooth decay and bad publicity. Fluoridation discussions abounded at a 1973 symposium on “The Role of Sugar in Modern Nutrition” hosted by Marabou, a Swedish chocolate company, which both Stare and Darby. Johan Throne-Holst, president of Marabou, presented the opening address, in which he lamented the “slanted presentation of facts in mass-media” which led to “the recent Swedish legislation against fluoridation of drinking water.”⁶⁸ The president of the chocolate company regretted that that more emphasis was “given to hypothetical hazards of spectacular nature than to well documented scientific facts informing both the legislators and the public about the true value of fluoridated drinking water.”⁶⁹ The summary of the findings of the symposium illustrates the synergistic nature of fluoridation campaigns and sugar marketing campaigns:

1. Good nutrition consists of adequate amounts of water, protein, fat, carbohydrates, minerals, vitamins and fiber. Such nutrition may be obtained by diets containing sugar which is a widely consumed, cheap carbohydrate...
2. ...An effective way to reduce caries is the fluoridation of water...
3. A moderate amount of sugar in the diet does not influence the level of cholesterol in the blood of healthy persons when weight is maintained. With gain in weight cholesterol usually rises regardless of the source of energy. There is no evidence that sugar has any effect on the incidence, prevalence or severity of coronary heart disease.
4. Obesity is caused by an energy imbalance. In this respect energy from sugar is not different from energy from other foods or from alcohol. Excessive caloric intake in relation to energy expenditure is the cause of obesity.⁷⁰

Resistance to fluoridation and opposition to sugar also often went hand in hand. Catherine Carstairs has written about the history of municipal water fluoridation campaigns in Canada and noted that “many anti-fluoridationists... thought that a sugarless diet would

⁶⁶ Stare, “Forty Years,” 322.

⁶⁷ *Ibid.*

⁶⁸ Johan Throne-Holst, “Opening Address, “The Role of Sugar in Modern Nutrition,” Symposium, Marabou, Sundbyberg, Sweden, August 18, 1973.

⁶⁹ *Ibid.*

⁷⁰ Arvid Wretlind, “Summary”, “The Role of Sugar in Modern Nutrition,” Symposium, Marabou, Sundbyberg, Sweden, August 18, 1973.

better prevent tooth decay.”⁷¹ She notes that relative to the health problems some alleged fluoridation would cause, such as “allergies, cancer, bone abnormalities, and kidney disease,” many anti-fluoridationists “believed that tooth decay was a minor inconvenience and thought that a healthier diet, with less sugar, was a better way to reduce cavities.”⁷² The anti-fluoridationists argued was that fluoridation was mass medication and therefore “a violation of civil liberties, that there were better means to get fluoride to children, that it was wasteful, and that parents could prevent cavities by controlling how much sugar their children ate.”⁷³ This last point indicates that sugar consumption was widely considered an important factor in tooth decay, and that restricting sugar consumption was considered in opposition to and as an alternative to fluoridation.

Conclusion

The kinds of industry interactions we have looked at, and the increasingly polarizing discussions about sugar (abetted on the one end by the sugar industry and on the other by quacks like J.I. Rodale, who claimed in 1968 that rampant sugar consumption was responsible for violence, rape, divorce, teenage delinquency, and even the crimes of Hitler, who was an alleged “sugar drunkard,”) complicated the dispensation of nutritional advice, which, especially where governmental publications were concerned, continued to err on the side of caution.⁷⁴ The many different voices in the realm of nutrition advice made it difficult for both experts and lay people to agree on what constituted good nutrition, and where sugar fit into that. This chapter has been fairly critical of food industry involvement in nutrition education, but without industry funding, there would have much less research (some of it honest) done, because corporate money helped set up the infrastructure for scientific research. Stare noted that Harvard’s Department of Nutrition, buoyed as it was by funds from entities like the Sugar Association, was the first department of human, rather than livestock, nutrition “in any major medical centre” and was innovative because up until that point, the leaders of nutrition “were professors of physiological chemistry, chemistry, or agricultural chemistry in departments outside of medical centers.”⁷⁵ Accepting money from food industries to establish a research infrastructure is not inherently unethical – the

⁷¹ Catherine Carstairs. “Cities without Cavities: Democracy, Risk and Public Health,” *Journal of Canadian Studies* 44,2 (Spring 2010), 153.

⁷² *Ibid.*, 149.

⁷³ *Ibid.*, 164.

⁷⁴ J.I. Rodale, *Natural Health, Sugar and the Criminal Mind* (New York: Pyramid Books, 1970), 15.

⁷⁵ Stare, “Forty Years,” 321.

buildings, beakers and Bunsen burners themselves are not tainted with profit motives. But the research that takes place within that infrastructure can be.

The problem with industry involvement in nutrition science is that it operates on the assumption that the product is worthy, and this is out of line with scientific skepticism in which nothing is safe or sacred. Science is an expensive endeavor, and funding must come from somewhere – whether public health research funding by profit-making entities is ethical is an ongoing discussion that will not be settled here. I only hope to have demonstrated is how marketers employed the mythology of science in the decades when public trust in rational, technological, scientific advancement was high.

Certain understandings about sugar were firmly established in the public's mind. While sugar's role in chronic disease continues to be debated, it was fairly widely accepted even in the 1950s that sugar contributed to tooth decay. Because this was the only valid, established criticism of sugar, it was almost always included in nutrition advice and was one of the sugar industry's biggest challenges. Their shiniest weapon against the tooth decay argument came in the form of fluoridation, a scientific solution entirely emblematic of the assumptions of high modernism. Brian Martin has analyzed the fluoridation controversy and looked at "the use of professional power to promote fluoridation and to attack the credibility and activities of anti-fluoridation scientists."⁷⁶ He indicates that because fluoridation was supported by so many professional organizations (even if not always by individuals within them, as we have seen, and as he also demonstrates), pro-fluoridationists could utilize scientific authority as a resource, regardless of whether the science was actually on their side. He notes that proponents of fluoridation stake their claim in the interest of science,

while attributing opposition to personal or political factors... The opposition, on the other hand, explains promotion of fluoridation in contingent terms – professional vested interests, corporate profits – while claiming scientific backing for its own stand. But the two sides are not symmetrical in their appeals to science to support themselves and appeals to non-scientific factors to explain the opposition. Anti-fluoridationists, because they do not have the resource of authoritative endorsement, are much more likely to argue that values and interests are involved in the issue, especially individual rights which they say are violated by compulsory medication. Thus the possession or non-possession of the resource of authority has influenced the repertoire used by each side.⁷⁷

⁷⁶Brian Martin, "Analyzing the Fluoridation Controversy: Resources and Structures," *Social Studies of Science* 18,2 (May 1988), 331.

⁷⁷ *Ibid.*, 335.

Despite overtures from the Sugar Association, and the fluoridation of many North American municipalities' water supplies, the place of sugar in configurations of healthy eating changed drastically from WWII to the mid-seventies. However, these changes were uneven and not necessarily rooted in any solid science. The Sugar Association's response tended to be fairly consistent through the decades. It adopted a strategy of riding the waves of criticism rather than resisting them, and focusing on scientific 'sugar facts' while avoiding discussions about context: newspaper audiences were reminded that sugar had only 18 calories per level teaspoon, but how much did the average person actually put in her coffee? They were told that the sugar in their cupboards was the same as that which appeared naturally in fruit, but not that, as a whole food, fruit contained nutrients and fiber which made that food worth eating, and which would mitigate some of sugar's physiological effects, such as the spike in blood sugar it caused. Consumers were told that no one food caused obesity, and that all that mattered was calories in/calories out, but not that sugar is nothing *but* calories and performs no other function in the body aside from endowing it with energy.

The documents from the 1970s we have looked at seemed to regard both refined carbohydrates and obesity as appendages of modernity. A sort of fear about excess had begun to be articulated even from the 1950s in newspaper headlines that read, "Canada overeats, India Starves," "Quarter of Population Too Fat," "All Suffering Too Much Food," and "Obesity Most Common Form of Malnutrition."⁷⁸ Some nutrition documents spoke to concerns about a culture of excess, and the later ones were sometimes nostalgic for simpler times, and remembered them differently – as being less decadent, less excessive, more natural and somehow safer. But many of these notions about safety and comfort were once actually wrapped up in sugar itself, and the next chapter will explore how, particularly during the Cold War, despite all its nutritional shortcomings, and its suspected link to the perils of modernity, sugar maintained a place in the North American diet because of its simultaneous strong connection to memory and comfort.

⁷⁸ "Canada overeats, India starves," *The Toronto Telegram*, June, 18 1953, LAC, CDA fonds, MG28 I209, volume 4, "Scrapbooks, 1947-1955"; "Quarter of population too fat," *St. Catherine's Standard*, June 18, 1953, LAC, CDA fonds, MG28 I209, volume 4, "Scrapbooks, 1947-1955"; "We're all suffering from too much food," *The Vancouver Sun*, June 13, 1961, LAC, CDA fonds, MG28 I209, volume 6, "Scrapbooks, 1959-1961"; "Obesity most common form of malnutrition," *The Globe and Mail*, 18 June, 1953, LAC, CDA fonds, MG28 I209, volume 4, "Scrapbooks, 1947-1955."

Chapter 5: Affective Dimensions

In North America, the decades following the Second World War were marked by dramatic changes in the social, political and technological landscapes which together gave the impression of a strange and sometimes frightening new world. Production was becoming increasingly automated and mechanized. Corporate culture was growing, breeding armies of Organization Men.¹ Women banged more and more loudly at the gates of Paid Labour. Satellites swirled around the planet and man walked on the moon -- the stars were coming within reach. Babies boomed. Cancer and heart disease seemed to rage out of control. Social equity movements ignited and divided communities. Tyranny loomed in the global East and threatened to spread like a sickness. Technological advances increasingly brought humans into contact with computers and other machines. New products reproduced cheaply and exponentially. Car ownership and car culture exploded. The supermarket rose up triumphant from the bowels of the suburb. First the IUD, and then the pill, gave some women hitherto unimaginable control over their reproductive bodies. In Canada after 1969, easier access to divorce unsettled the balance of power within marriages. Technology that alleviated toil was charged with destroying work ethic. Men and women of every colour and creed marched hopefully towards an ideal of social equity. A cornucopia of new commercial products piqued interest, avarice and taste buds, but threatened to consume the consumer. In many ways, the world felt new – full of promise, but laced with danger. The project of high modernity, which marked Canada's 1950s and 1960s, was in that way sublime, inspiring both fear and awe.

This chapter will demonstrate that the age of anxiety managed to permeate the kitchen as the acts of eating and feeding were established as potentially dangerous, both physiologically and psychologically. Anxieties about the changing meanings of work, the Cold War, the rise of consumer culture and chronic disease, and the state of the family manifested themselves in discussions about food, which were often, if not always, strongly gendered. In dietary and cooking advice, frequent calls to memory and nostalgia, and claims about the nutritional superiority of the good old days demonstrate some of the ways in which this brave new world, with its ever vaguer definitions of what it meant to be masculine and feminine, with its new fan-dangled technologies and its loosening moral code, was resisted. Anxiety about the future also helped sugar, with its undertones of

¹ William H. Whyte, *The Organization Man* (New York: Simon and Schuster, 1956).

comfort and pleasure, retain a place in the Canadian diet despite its increasingly apparent nutritional shortcomings.

This chapter will also examine how ideas about gender, bodies, and power were expressed through dietary advice. Given that women have been, and continue to be, primarily responsible for food preparation, gender figures prominently in alimentary discussions. And, as noted elsewhere, sugar was, and is, an especially gendered food. Post-war advice about sugar consumption was often tied to residual Victorian ideas about women's (lack of) impulse control and restraint, as well as to contemporary concerns about the dissolution of the family in the strange solvent of the modern world.² A growing emphasis on personal responsibility and lifestyle as determinants of health obscured both biological and social contributors to obesity and disease, and depicted overweight individuals as greedy, impulsive, undisciplined and out of control. Because more women than men were classified as overweight, more women than men bore this stigma of softness. The characterization of females as more susceptible to the temptations of the senses in a consumer culture overrun with new and novel products discredited mothers' innate capacities for properly feeding their children, who were, according to Canadian nutritionists, poorly nourished, despite rising income levels.

The professionalization of the home sphere was presented in schools and popular media as one means of combating both the ignorance that experts blamed for malnutrition, as well as the mass exodus of middle-class women from their domiciles. Professions in dietetics and home economics provided some of the most socially acceptable avenues for women seeking meaningful employment because they represented an extension of housework. At the same time, the existence of expert homemakers implied that homes themselves could and should be professionalized. This professionalization of the home, and by extension, womanhood, was compatible with reigning neo-Freudian theories of gender difference which asserted that healthy women would be fulfilled as homemakers. The portrayal of housework and mothering as technically demanding and rewarding jobs in and of themselves implied to women that they need not seek outside employment to fulfill

² Wendy Woloson, *Refined Tastes: Sugar, Confectionary and Consumers in Nineteenth Century America* (Baltimore: Johns Hopkins University Press, 2002).

desires for cerebral demands like rationality, science and order – their own homes were challenging enough, and important enough.³

The mass entry of women into the work force during the war had complicated understandings of gender and was considered a temporary aberration. At the end of the war, female war workers were encouraged to return to their homes and well-defined gender roles were forcefully reasserted. Both men and women variously contributed to, and resisted, the post-war normalization of rigid gender roles at a time when understandings of masculinity and femininity, and their relationship to each other, were in flux. This chapter engages with the prescriptions for appropriate gender behaviour buried in post-war nutritional texts, which were addressed to women, but men had also their own prescriptive texts that articulated post-war understandings of masculinity. The strong emphasis on domesticity and duty evident in nutritional documents from the post-war period suggests an impulse to stabilize gender roles by asserting gender difference in regards to feeding behaviour. In her look at the ‘macrobiotic’ dietary trend of the 1960s and 70s, Karlyn Crowley demonstrated one way that food could be used to calibrate gender identity.⁴ The documents I have examined similarly suggest that, during the post-war period in Canada, ways of eating could be understood as tools for finely tuning gender.

This chapter also examines the cracks that began to show in the high modernist project of prescribed, scientific eating. The failure of this paradigm to eradicate chronic health problems such as heart disease, diabetes, malnutrition and obesity made room for non-nutritive aspects of eating, such as the emotional qualities of foods, to be considered. However, true to high modernist form, affective feeding solutions in the 1950s and 60s were often clinical and prescribed, as if the emotional aspects of food could be calculated just like the calorie count. For example, women were encouraged to simply use attractive tablecloths in order to make meal times more pleasant, and therefore healthier. This growing emphasis on mood and appearance during meals increased mothers’ workloads and bred anxiety, as they were now informed that an inappropriate dining atmosphere could damage their child’s physical or mental development. The use of fear as a means of educating and

³ See *A Diversity of Women: Ontario, 1945-1980*, ed. J. Parr (Toronto: University of Toronto Press, 1995); Cynthia Comacchio, *Nations are Built of Babies: Saving Ontario’s Mothers and Children, 1900-1940* (McGill-Queens University Press, 1993); *Not June Cleaver: Women and Gender in Postwar America, 1945-1960* ed. J. Meyerowitz (Philadelphia: Temple University Press, 1994).

⁴ Karlyn Crowley, “Gender on a Plate: The Calibration of Identity in American Macrobiotics,” *Gastronomica: The Journal of Food and Culture* 2,3 (2002), 37-48.

motivating women is evident in much of the diet and nutrition material distributed to mothers in the decades following the Second World War, and hints at the heightened anxieties which floated around about gender, the individual, and our mortal bodies, which no scientific strategies seemed able to save.

Women and Bodily Control

The idea that one should eat ‘scientifically’ for optimal health, which had been percolating since the conception of calories in the mid-nineteenth century and the discovery of vitamins in the early twentieth, complicated the relationship between women, who were often characterized as frivolous, impulsive, and generally antithetical to science, and food preparation, for which they were primarily responsible. This was particularly the case with a sweet, nonessential foodstuff such as sugar, which was often charged with dislodging more nutritious foods from the diet. Wendy Woloson speaks of a widely held nineteenth century assumption that “as a nonessential good with little nutritional value, sugar likely appealed to the cravings of women and children – groups of the population assumed to have little control over their mental and physical impulses.”⁵ In a similar vein, in 1951, nutritionist Dr. E.W. McHenry, who sat on both the Canadian Council on Nutrition and the Health League of Canada, wrote in his syndicated newspaper column:

About as often as women buy a new hat, and for a less useful reason, a dietary fad sweeps the country. Just now it’s molasses and yogurt. Your guess is as good as mine as to the nature of the next one but I’ll bet it will have as little scientific justification.⁶

While these dietary fads were practiced by both sexes, women were considered more susceptible to them. The stereotype endured. A 1960 newspaper article portrayed women as those most likely to purchase and consume empty calories. Dr. Barbara McLaren, Dean of the School of Home Economics at the University of Toronto, claimed that

too many homemakers are spending money on “empty calorie” foods instead of those containing nutrients ...they’re spending money on pastries and sweets that can contain only empty calories.

⁵ Woloson, *Refined Tastes*, 12.

⁶ “Have A Good Time On Foods You Like Without Diet Fads,” *The Toronto Telegram*, March 5, 1951, Library and Archives Canada (hereafter LAC), Health League of Canada (hereafter HLC) fonds, MG28 I332, volume 124, “Conferences” file 12, “Nutrition, Clippings, 1940-1977.”

The article pointed to a Toronto survey that suggested it was not cost, but (women's) poor buying choices that resulted in malnutrition.⁷ Under the subheading "Women Overweight" it read, "those people eating excessive empty calorie foods become fat." Like McHenry, McLaren disparaged fad diets, saying that "too often [they] provide a good conversation piece. That's why fad diets are so popular."⁸ Charged with poor purchasing choices and a fancy for fads, women were blamed for the nutritional problems that had begun to concern Canadians, even while the doctrine of lifestyle and personal responsibility gained steam, for females in families were expected to facilitate those healthy lifestyles.

The body, and particularly the female body, as an expression of personal control and morality, is identified in another of McHenry's pieces, where he stated that the percentage of overweight Canadian women (23% of the population) was higher than the percentage of overweight men (13%). Neither social nor metabolic factors were suggested as explanations for this statistical difference, but McHenry did declare that "the main ingredient needed for a successful weight-loss program is willpower" (something impulsive women were lacking) and that "most fat people have plenty of guts but little backbone."⁹

The sentiment that individuals were both personally responsible for their health and were morally obliged to be healthy gained momentum in the decades following the Second World War. The first few years after the war were marked by optimism and exuberance in Canadian public health reports as contagious diseases like tuberculosis were brought under control. However, by the mid-1950s, that enthusiasm was increasingly tempered as rates of, and deaths from, chronic disease continued to mount, despite the best efforts of health professionals. As improvements in sanitation and vaccinations eradicated infectious diseases, Canadians were able to live long enough (and well enough) to succumb to illnesses such as cancer and heart disease. In 1952, the Deputy Minister of Health in Nova Scotia was reluctant to recognize the vulnerability of his population to chronic illness, initially chalking up the mounting death rate from such diseases to an aging population.¹⁰ Increasingly,

⁷ *Ibid.*

⁸ "Shun Empty Calories Nutritionist's Advice," *The Montreal Gazette*, June 16, 1960, LAC, Canadian Dietetic Association (hereafter CDA) fonds, MG28 I209, volume 6, "Scrapbooks, 1959-1961."

⁹ E.W. McHenry, "Fat People Must Blame Themselves," *The Toronto Telegram*, date unknown, LAC, HLC Fonds, MG28 I332, volume 124, "Conferences" series, file 12, "Nutrition. Clippings, 1940-1977."

¹⁰ Nova Scotia, Department of Public Health, *Annual Report*, 1952, 10.

however, he was forced to admit that aging could not entirely explain the increase in chronic disease.¹¹

In the early 1950s, the Nova Scotia Department of Health recommended early detection as the best means of protection from chronic disease, and did not yet emphasize diet or lifestyle. The 1952 report did indicate that “it is generally conceded that there is probably no other single factor so important to the achievement and maintenance of health as is nutrition,” however, this declaration appeared in the nutrition section of the report, suggesting that the role of diet in health had not yet diffused throughout the Department.¹² Nutrition is, however, one of the most personal means available to individuals looking to influence their health, and in Canada in the 1950s, these individuals appear to have been numerous. In 1955, J.J. MacRitchie, Divisional Health Officer with Nova Scotia’s Department of Public Health, declared, “at no time in history has man been more interested in his physical well being than at the present. We see and hear that on all sides; on the street; in the homes; on the radio; in the press; periodicals; magazines; digest, etc.”¹³ That year’s report acknowledged that “biological factors ...differ greatly in the individual members of a community... so that in matters of health, each individual must study his own requirements.”¹⁴ In medicine, as in Cold War politics and corporate culture, a doctrine of individualism struggled against pressure to stay within clearly demarcated boundaries for the good of the greater organism, whether it be the company or the body politic. Through the dissemination of nutritional advice, calls to exercise, height-weight charts and dietary standards with recommended daily intake levels, individual Canadians were expected to conform to a particular ideal of physical health for the collective good, as envisioned by a state whose social services, and therefore responsibilities, were rapidly expanding.

By 1977, once the national health insurance system was well established, the state’s interest in individuals’ health choices was fully articulated. That year, Nova Scotia had a health promotion budget of \$73,500 with the goal of producing “an informed public, motivated to assume some responsibilities for personal health through appropriate lifestyle behaviour modification areas.”¹⁵ The document noted, “self-imposed risks are important

¹¹ Nova Scotia, Department of Public Health, *Annual Report*, 1954, 10.

¹² Nova Scotia, Department of Public Health, *Annual Report*, 1952, 218.

¹³ Nova Scotia, Department of Public Health, *Annual Report*, 1955, 258.

¹⁴ *Ibid.*, 259.

¹⁵ Nova Scotia, Department of Public Health, *Annual Report*, 1977, 16.

factors and are the major causes of death between ages one and 71. One can only conclude that unless the personal habits of Nova Scotians are changed, death rates will not be significantly reduced,” and declared the majority of health problems to be “basically... lifestyle related.”¹⁶

The province took several decades to publicly charge lifestyle as a factor of disease, but, as discussed in a previous chapter, government offices required a much larger burden of proof than did private organizations or freelancers. For example, in 1956, the Nova Scotia health report lamented that “the death rate [from heart disease] in 1955 is the highest ever recorded in this province” but that not enough was known about its causes to set up a prevention program, though “recent research would suggest that improper diet is a factor, emphasis being on the fatty elements, particularly cholesterol.”¹⁷ But in that same year, McHenry, in his column, was already linking disease to diet by declaring “fatness” (he “won’t be polite and call it obesity”) “the most widespread nutrition problem in Canada and the worst from the viewpoint of health.”

Some of the language McHenry used in that column would offend today’s sensibilities, but it neatly encapsulates popular ideas about individual responsibility at a time when the discussion of the social and economic inequalities contributing to disease and malnutrition would have been incompatible with the ideological requirements of the Cold War. McHenry continued: “the word, widespread, in the opening sentence was unfortunate – I really meant prevalent. If you have tried to sit beside a fat person in a bus lately you may like widespread.” He professed he did not feel sorry for fat people, who “have no one to blame except themselves,” and urged those who are unsure of whether they are overweight to “take off [their] clothes and look at [themselves] in the mirror, if [they] can stand the sight.”¹⁸ The fat person here is not only depicted as physically repulsive, but as a moral failure, too: lazy, undisciplined, irresponsible and uncontrolled.

This understanding of fatness, which marked, at least statistically, more women than men, undermined legitimate concerns about the politics of feeding. A 1966 article covering a housewives’ protest of rising food prices, titled “Some Women Protesting Food Costs Look

¹⁶ *Ibid.*

¹⁷ Nova Scotia, Department of Public Health, *Annual Report*, 1956, 10.

¹⁸ E.W. McHenry, “Fat People Must Blame Themselves,” *The Toronto Telegram*, date unknown, LAC, HLC Fonds, MG28 I332, volume 124, “Conferences” series, file 12, “Nutrition. Clippings, 1940-1977.”

Overfed, Food Experts Say”, asked whether “they have any right to complain if they and their families overeat, and they have to give up expensive snacks?” The aforementioned McLaren, who was also featured in this article, “pointed out that 30 per cent of all Canadians are overweight – including not a few of the women who have been staging price protests.” Once again, but this time by other, educated (and presumably thin) females, women (in this case, fat women) are painted as impulsive and incapable of resisting the good stuff: “the three faculty members had little sympathy for women who complain about the price of steak. If you can’t afford it, don’t buy it, they said. Use budget meat for three days and treat yourself to a steak on the fourth.”¹⁹ Such advice ignored the pressure many women felt from their husbands, children, and cookbooks to serve certain kinds of foods and to cater to their family’s tastes. In *Baking as Biography*, a look at her mother’s recipes, Canadian folklorist Diane Tye recounts never knowing that her father disliked sour cream, because she had never seen him refuse anything, so well-tuned were the family’s meals towards his preferences.²⁰ She also discusses how the perpetual battle between healthy food and tasty food usually lost out to husbands’ and children’s tastes. The question of what good is food if no one eats it, was, she said, “a central dynamic for us, and many other families, during the 1950s, 1960s, and 1970s.”²¹ Further, the implication that women were shopping for fine steak *for themselves* flew in the face of the dietary data collected in Toronto in 1937 and 1948 that indicated that “in the face of family food shortages,” women in low-income households tended “to stint on their own consumption to ensure that their husbands and children received adequate nutrition.”²² As well, it contradicted culturally determined ideas about what constituted appropriate food for men and women, which has been discussed in a previous chapter.

“It all boils down to using common sense,” McLaren is quoted, implying that the overweight women protesting rising food prices lacked such a capacity. “You don’t bake peach pie in January and you don’t send a \$1.20 turnip to the Prime Minister in August. You

¹⁹ “Some women protesting food costs look overfed, food experts say,” *The Globe and Mail*, November 25, 1966, LAC, CDA fonds, MG28 I209, volume 8, “Scrapbooks, 1964-1966.”

²⁰ Diane Tye, *Baking as Biography: A Life Story in Recipes* (Montreal: McGill-Queens Press, 2010), 82.

²⁰ Sidney Mintz, *Sweetness and Power: The Place of Sugar in Modern History* (New York: Penguin Books, 1985), 145.

²¹ *Ibid.*, 77.

²² Aleck Samuel Ostry, *Nutrition Policy In Canada, 1870-1939* (Vancouver: University of British Columbia Press, 2007), 109.

wait to buy turnips until they are 3 cents a pound.”²³ Not only did such advice distract from the pressing conversation of whether food prices really were too high, such a suggestion - that many women lacked common sense and were easily swayed by tempting turnips - did more than criticize their competence in the kitchen. It criticized their general competence, and as such implied that those same characteristics made the hard-won gains women had made in other arenas, particularly in employment and marriage, undesirable and unsustainable. In her study of *Chatelaine* magazine in the 1950s and 1960s, Valerie Korinek noted that a “link between thinness, greater sociability, better careers, and personal well-being was repeated in virtually all the diet-product advertisements,” articulating a connection between control of bodily appetites and candidacy for career success.²⁴

The Modern Family and Malnutrition

Many of the social changes that took place after the war fundamentally altered family structures by increasing the freedom of women. Critics of these changes insinuated that women lacked the capacity to wisely employ these new freedoms, whether they be easier access to divorce, employment and contraception, or relaxing mores about sexuality. For example, the working middle-class mother was often charged with ruining her children’s mental and physical health through her selfish and misguided desire to work outside of the home for personal fulfillment.²⁵ While women, especially poor women, had always worked outside of the home, usually out of necessity, the slow normalization of white middle-class women entering the workforce disrupt not only the post-war ideal of a nation of male breadwinners strong enough to support the growing consumer culture, but also a sense of continuity with the past, however imagined, that many longed for after the turmoil of war.²⁶

²³ “Some women protesting food costs look overfed, food experts say,” *The Globe and Mail*, November 25, 1966, LAC, CDA fonds, MG28 I209, volume 8, “Scrapbooks, 1964-1966.” In 1966, Canadian housewife June O’Reilly sent a gift-wrapped turnip to Prime Minister Pearson in protest of high food prices.

²⁴ Valerie J. Korinek, *Roughing It In The Suburbs: Reading Chatelaine Magazine in the Fifties and Sixties* (Toronto: University of Toronto Press, 2000), 148.

²⁵ In “Doing Two Jobs: The Wage-Earning Mother, 1945-1970,” in *A Diversity of Women: Ontario 1945-1980* ed. J. Parr, 98-134 (Toronto: University of Toronto Press, 1995), Joan Sangster indicates that “during this period... married women’s wage work was often discussed in the media as a problem,” and that “working women with young children were often judged to be less than ideal mothers” (98). For an early, if exaggerated, example, see Philip Wylie’s, *Generation of Vipers* (New York: Farrar and Rinehart, 1942).

²⁶ Korinek, *Roughing It In The Suburbs*, 6.

Rising rates of female work force participation did not only upset understandings of femininity and residual Victorian ideas about separate spheres, they also had practical implications. Women often found themselves working two jobs, as being employed outside of the home did not constitute an excuse to shirk domestic duties. New technologies facilitated the double day, but not everyone welcomed these trappings of modernity. Time-saving appliances and convenience foods helped some women keep up with domestic demands outside of their paid working hours, but the tricks and techniques women used to meet temporal demands were sometimes criticized, even by dieticians and nutritionists who understood the challenges of feeding a family. In 1961, in a section of minutes of the Provincial-Dominion Nutrition Committee titled 'Nutritionist Suggestions,' which dealt primarily with children's nutrition, one government nutritionist lamented that "homemade soup is a thing of the past," a complaint tied as much to nostalgia as it was to any nutritional shortcomings of canned soup.²⁷ Such a lament expressed a deep sense of ambivalence toward modernity and the working mother who did not have time to chop, simmer, and strain. It was not necessarily the can of soup being criticized, but the mother who served it.

Other trappings of modernity were similarly warily embraced. The appearance of television in Canadian homes changed the dynamic between children and their caretakers. While in many ways a heaven-send for mothers struggling to complete housework while encumbered by children who required amusing, television was seen by some as a lazy and dangerous parenting tool. To say nothing of the mental decay that might accompany excessive television viewing, the boob tube was charged with contributing to childhood obesity. "Is Halifax going to have a race of fat children after television comes to town next Winter?" asked one 1955 newspaper article.²⁸ This image of a race of fat children growing soft before television screens also called to mind a race of negligent, selfish mothers, keen to pass their child-minding responsibilities off to a machine.

Aside from maternal neglect, another factor supposedly contributing to children's poor nutritional standing was the incidence of divorce and separation. Prior to 1968, access to divorce was strictly limited in Canada, which consequently had one of the lowest divorce

²⁷ Dominion-Provincial Nutrition Committee, "Nurses' Suggestions Regarding Nutrition Problems," Minutes, Appendix IIIb (1961), LAC, Department of Health funds, RG29, volume 3466, "Nutrition Division" series, "Minutes of the Dominion-Provincial Nutrition Committee (1959-1965)."

²⁸ "...Says Children Will Fatten Watching TV," clipping in unidentified newspaper, no date, LAC, CDA funds, MG28 I209, volume 5, "Scrapbooks, 1954-1958."

rates in the Western world.²⁹ No federal divorce law existed, and unhappy couples in provinces lacking a provincial divorce court had to seek an Act of Parliament to dissolve their marriages, a process both expensive and time consuming. A husband could file for divorce on the grounds of his wife's adultery, but a wife had to prove "that her husband had committed incestuous adultery, rape, sodomy, bestiality, bigamy, or adultery coupled with cruelty or desertion."³⁰ After 1968, couples were able to divorce on the grounds of permanent marriage breakdown rather than being limited to fault-based reasoning.³¹

But even before the introduction of no-fault divorce made legal separation more accessible, more and more couples were living apart. There had been a steady increase in single-parent families since the mid-1960s due in no small part to changing female work patterns which allowed some women a greater measure of economic independence from the men they married.³² By the early 1960s, parental separation was enough of a concern for health professionals working with children to merit mention as a cause of poor nutrition. In 1960, almost a full decade before divorce restrictions were loosened in Canada, minutes from the Dominion-Provincial Nutrition Committee illustrate that separated parents were seen as a potential factor in the fainting spells some poorly-nourished students were experiencing. In assessing these students' nutritional problems, health authorities listed well-defined physical nutritional factors such as "a lack of Vitamin C in breakfast", "low milk drink[ing], too many soft drinks", and the selection of "too many sweets for meals in cafeterias or restaurants," but they also brought in a social dimension with the suggestion that "if both parents are working or separated, children have to prepare own breakfast and may get up after parents have gone to work. They cut their own sandwiches, use poor fillings." Further down, the document repeats: "Again parents both work, separations, problems."³³

²⁹ The Canadian Encyclopedia, "History of Marriage and Divorce," last modified January 3, 2014 <http://www.thecanadianencyclopedia.com/articles/history-of-marriage-and-divorce>

³⁰ Parliament of Canada, "History of Divorce Law in Canada." <http://www.parl.gc.ca/content/lop/researchpublications/963-e.htm>

³¹ *Ibid.*

³² Mary Bess Kelly, "Divorces in Canada," Statistics Canada, <http://www.statcan.gc.ca/pub/85-002-x/2012001/article/11634-eng.htm>

³³ Dominion-Provincial Nutrition Committee, "The Public Health Nurse And The High School Student," Minutes, Appendix IXe (1960), LAC, Department of Health fonds, RG29, volume 3466, "Nutrition Division" series, "Minutes of the Dominion-Provincial Nutrition Committee (1959-1965)."

If a child suffered nutritionally because both parents worked or were separated, it was the mother who was held accountable. This is evidenced not only by the fact that nearly all nutritional material during this period was addressed to women and mothers, but also by discourse in the public press and other productions. The 1950 National Film Board film, *Why Doesn't Tommy Eat?*, which was "prepared for parents, especially mothers," portrayed the mother as the one who was most, if not solely, able to influence a child's eating patterns. The film screened for members of the Health League of Canada, and one of the viewers, Dr. H.R. Skilling, believed it:

showed that Tommy did not have an appetite because of the home atmosphere. If his mother had taken a little more interest in Tommy then he might have developed an appetite... If a mother shows too much anxiety about what her child eats then he will in turn use her attitude as a powerful weapon by refusing to eat what he is given and in this way secure for himself more attention from her.

Tommy's fussiness was attributed to the mother, who had to take care to demonstrate just the right amount of interest in her child. Tommy's father, however, had a different role to play. At the meeting, another HLC member, Mrs. Agnew, "expressed the opinion that she would like to see a film with the father taking a more important part," but she did not mean that it was also up to him to coax and encourage the child directly. Instead, Mrs. Agnew remarked that "it frequently occurs that a child refuses to eat what its father dislikes or leaves on his plate."³⁴ Similarly, a section of an Ontario Nutrition Bulletin entitled, "Food Habits Start at Home," indicated that "parents can provide good examples; if father refuses to drink milk, can we expect the son to do so?"³⁵ The perfect post-war father is expected to do little beyond model reasonable eating habits; it is the mother who must strike that fine balance between hand-wringing and apathy, coddling and coolness.

Recalibrating Gender

This strict separation of gender roles around the dinner table was one way North Americans dealt with the apparent crisis of masculinity theorists identified after World War II. Gail Bederman has noted that in the nineteenth century, when the earlier manly ideal was threatened by changing social and economic conditions, some men attempted to reassert

³⁴ HLC, Minutes, May 9, 1950, LAC, HLC fonds, MG28 I332, volume 125, "Conferences" series, "Nutrition. National Nutrition Committee, 1950-1951."

³⁵ "Food Habits Begin at Home," *Ontario Nutrition Bulletin*, no date, LAC, Canadian Home Economics Association (hereafter CHEA) fonds, MG28 I359, volume 15, "Nutrition Committee: Correspondence, 1951-1954."

male dominance by taking over erstwhile feminine occupations – encouraging more male teachers in schools and taking a more active interest in parenting to ensure that children were exposed to adequate levels of manliness as they developed.³⁶ The medicalization of childbirth, as male doctors overtook female midwives, is another example of a conquest of a previously female arena.

Now, after the war, manliness, or then rather, masculinity, was besieged by new threats due to changing work culture and suburbanization. Bodies were becoming fatter, softer, more feminine. In 1958, the *Kitchener-Waterloo Record* reported that obesity was occurring more frequently because “modern living adds up to making us unwittingly physically lazier and lazier,” and that “there are shorter work weeks, labor saving devices and motor locomotion instead of walking, contrasted with the vigorous labour of a generation ago.”³⁷ In 1953, discussing the shortcomings of dietary guides, it was noted in one newspaper that when the caloric requirements for a “moderately active man” were set at 3,000 a day, the man used in the calibration was “a German carpenter who walked to work, worked 10 hours a day outdoors, and did much more of his own tasks at home than modern man does.”³⁸ This concern echoed McHenry’s, who, as discussed in a previous chapter, had advocated cutting the caloric allotment for Canadian women when he argued that “European women must work, out of necessity, in the fields and spend as much energy as men do.”³⁹ In the case of the women, the lower caloric requirement based on a gentler, civilized and sedentary lifestyle was compatible with the feminine ideal in post-war modernity, but that same gentle and sedentary, civilized lifestyle had an adverse effect on the nation’s men, who sacrificed a measure of their masculinity by occupying the modern world with all its conveniences. The virile veteran of the Second World War was losing his hard edge in suburbia. Comfort and corporate work culture also threatened masculinity in less physical ways. Stephanie Coontz recounts how, in the 1950s,

pundits bemoaned the eclipse of the risk-taking entrepreneur by the ‘organization man.’ They worried that men were losing their hard edge because they increasingly worked in impersonal bureaucracies where ‘feminine’ characteristics such as

³⁶ Gail Bederman, *Manliness and Civilization: A Cultural History of Race and Gender in the United States, 1880-1917* (Chicago: University of Chicago Press, 1996).

³⁷ “Anxiety Claimed Cause of Obesity By U.S. Expert,” *Kitchener-Waterloo Record* June 11, 1958, LAC, CDA fonds, MG28 I209, volume 5, “Scrapbooks, 1954-1958.”

³⁸ “Expert Nutritionist Says ‘Diseases of Comfort’ Threat to Civilization,” no date, clipping from unidentified newspaper, LAC, CDA fonds, MG28 I209, volume 5, “Scrapbooks, 1954-1958.”

³⁹ Ostry, *Nutrition Policy in Canada*, 109.

teamwork, compromise and concern for others' opinions were more important than individual initiative and aggressiveness.⁴⁰

Rather than colonizing female spheres to create a more masculine society, North Americans responded to this crisis of manhood not only by forcefully reasserting gender roles after the war, but also by hyper-feminizing women to better accentuate gender difference now that men's lives were seen to be more effeminate. This hyper-feminization is evident aesthetically in post-war fashion, and socially in the well-documented pressure for women to identify primarily as wives and mothers.⁴¹ The strong-armed and overt reinforcement of appropriate gender roles immediately following the war that evicted many women from their wartime jobs as veterans returned home continued through the 1950s and 1960s in more covert forms, because the presence of women in traditionally male work places was perceived by some to lessen the prestige of those positions.⁴² While some women's magazines such as *Chatelaine* made sure to celebrate the accomplishments of working super-women, dietary advice, and cookbooks especially, attempted to inspire in their readers a sense of fulfillment among measuring cups and muffin tins that would rival other pursuits and win them the love of their husbands and children, whose needs were presented as more pressing than their own. A woman's identity as wife and mother was always expected to trump her identity as a worker. Single working women, whose employed status did not yet interfere with the ideal of a nuclear family, were expected to leave their jobs upon getting married or pregnant, and be glad about it. But, according to Neuhaus, the very fervor with which we see gender ideology asserted in cultural artifacts, such as cookbooks, indicates that this ideology was highly unstable and required reinforcement through such texts. Neuhaus argues that the stated assumptions in cookbooks that women were completely fulfilled by their domestic duties implied that, in fact, they were not.⁴³ She writes,

the women who baked, basted, glazed and decorated throughout postwar cookbooks were figments of the postwar American imagination. They were an expression of desires and fears in a nation strained by the war and baffled by the unstoppable social

⁴⁰ Stephanie Coontz, *A Strange Stirring: The Feminine Mystique and American Women at the Dawn of the 1960s* (New York: Basic Books, 2011), 77.

⁴¹ An early, aesthetic example of a post-war impulse to reinforce femininity and exaggerate gender difference is evidenced by the popularity of Christian Dior's "New Look," unveiled in 1947, and epitomized by tiny waists and full skirts which emphasized an idealized "hourglass" figure.

⁴² Marlaine Cacouault-Bitaud, "La féminisation d'une profession est-elle le signe d'une baisse de prestige ?", *Travail, genre et sociétés* 1, 5 (2001), 91-115.

⁴³ Jessamyn Neuhaus, "The Way to a Man's Heart: Gender Roles, Domestic Ideology, and Cookbooks in the 1950s," *Journal of Social History* 32,3 (1999), 529-555.

changes that shaped the 1950s. These women were as fictional as Betty Crocker and constructed for a very similar purpose: to soothe and reassure.⁴⁴

But even if these women were a fiction, they were capable of inspiring real anxieties and feelings of guilt and inadequacy in the flesh and blood women who met them in the pages of their cookbooks, much like the rail thin supermodels and digitally-enhanced celebrities we meet in our modern magazines express different impossible ideals today. Given that most advice was intended for young, inexperienced homemakers, (many nutritionists were worried about girls getting married at younger and younger ages) it was likely to influence the young, impressionable women's perceptions of what it meant to be a wife, a mother, and a woman.

The insistent refrain that women should and would be satisfied as wives and mothers served to sharpen the lines between genders by firmly linking domesticity to femininity and retaining the public realm for masculine endeavours. However, as the decades rolled on, the reality was increasingly a consumer culture that necessitated two incomes, and a fermenting women's liberation movement that would eventually reject domesticity. Attempts to reinforce masculinity by exaggerating a domestic vision of femininity were doomed to fail. Unable to stem the flow of women into the workforce, discourses about masculinity and its relationship to femininity attempted to control that flow by directing it into appropriate streams.

Professionalizing Women

The push to rationalize, modernize, and essentially professionalize homes through Home Economics was useful in stabilizing gender roles because it provided gender-appropriate professions for females that were perceived to interfere less with their domestic duties. As well, portraying the home as a place where the reach of science, modernity and professionalism extended could mitigate the desire of women who felt dissatisfied by any perceived pettiness of housework to seek meaningful, productive work outside the home.⁴⁵ In addition, home economics education, including nutrition, was

⁴⁴ *Ibid.*, 546.

⁴⁵ Cynthia Comacchio, *Nations are Built of Babies: Saving Ontario's Mothers and Children, 1900-1940* (Montreal: McGill-Queens University Press, 1993); Caroline Durand, "Rational Meals for the Traditional Family: Nutrition in Quebec School Manuals, 1900-1960" in *Edible Histories, Cultural Politics: Towards a Canadian Food History*, ed. F. Iacovetta, V. Korinek and M. Epp (Toronto: University of Toronto Press, 2012); Neuhaus, "The Way to A Man's Heart"; Coontz, *A Strange Stirring*.

important because the power of traditional sources of knowledge regarding feeding and childcare – that is, extended female family- was fading in the glare of science, and some sort of standardized educational program had to replace them. Korinek confirms that suburban North American women in the 1950s and 1960s increasingly relied on the expert advice enshrined in women’s magazines “as replacements for the more traditional familial guides.”⁴⁶

Because the mother remained responsible for child feeding, any factor that might distract her from her primary function, such as separation or outside employment, was cautiously approached. It seemed safest to corral those women who would work into professions that were deemed ‘natural’ to them. At a convention of the CDA, Amy Cowing of the US Department of Agriculture illustrated that women were naturally inclined towards food preparation when she told the delegates that “food items, menus and recipes top the list of things women like to read”, and that “women are also interested in foods that keep down the waistline and tips on how to make the food budget stretch.”⁴⁷ Women working as nutritionists, or dietitians, or nurses occupied a strange place in the mother/worker continuum, for even though they were employed outside of the home, their work was undoubtedly gender appropriate, and allowed them to practice skills that would make their own homes run more efficiently. This was no instance of the cobbler’s kids going shoeless – the relevance of their profession to their home lives was continually stressed, almost as a sort of justification. For example, in the mid-1960s, Mrs. Louise Joubert, a “nutrition expert” with the Montreal Diet Dispensary, doled out recipe advice in a newspaper column, ostensibly as a health professional, but the value of her advice was framed in the context of her motherhood rather than her professional qualifications. Regarding the planning of healthy menus for children’s parties, she was described as “a mother of two, who has been through enough parties to know.”⁴⁸

The relationship between women and the sciences of home economics, dietetics and nutrition were complicated. There was an understanding that whatever natural aptitude women might have for food work needed to be refined and qualified. On the one hand,

⁴⁶ Korinek, *Roughing It In The Suburbs*, 217.

⁴⁷ “Food Articles Popular With Women,” *Buffalo Evening News*, June 14, 1951, newspaper clipping located at LAC, CDA fonds, MG28 I209, volume 4, “Scrapbooks, 1947-1955.”

⁴⁸ “Disguise nutritious food for children’s parties,” clipping from unidentified newspaper, no date, LAC, CDA fonds, MG28 I209, volume 8, “Scrapbooks, 1964-1965.”

women were considered to have a primordial association with food and feeding. On the other, they were considered frivolous, impulsive and sensual, and as such, unlikely to adhere to the rational, scientific modes of eating thought to optimize health, with their precise calorie counts, food groups, and RDAs.⁴⁹ While women, however impulsive, continued to be ‘naturally’ associated with food, the increasing professionalization of home economics and nutrition suggested that women (as well as men) lacked intuitive knowledge about feeding and needed to be taught.⁵⁰ This tension was addressed by acknowledging a supposed female affinity for all the matters of the mouth while trying to harness that impulse within the confines of professional advice. At the peak of high modernism, this naturalness was not something to be embraced, but overcome, conquered and improved upon.⁵¹

Home economics was something that all women were expected to practice, even if they were not all going to be professionals at it. Home economists, dietitians and nutritionists saw it as their professional duty to steer natural affinity into healthy, informed, and scientifically sound avenues. This was symptomatic of an age where faith in science and education were exceptionally robust. With the advent of the good life, ignorance was used to explain lingering problems of malnutrition and to obscure their social or economic causes. As well, education was an important tool for navigating the sea of new products and practices that made up modern living, and for making consumer culture compatible with biological needs. With so many new alimentary options lining supermarket shelves, mothers who were not carefully educated about what to serve were at risk of feeding their children junk.

In 1961, an article ran in the *Regina Leader Post* with the headline, “Dr. Says: Mothers Lack Knowledge About Feeding.” It claimed that “North America, said to be a land

⁴⁹ This perception is evident in cultural artifacts like McHenry’s aforementioned article about women, dietary fads, and new hats.

⁵⁰ Comacchio discusses a similar, earlier phenomenon in *Nations are Built of Babies* when she talks about the promotion of “scientific motherhood” in the first half of the twentieth century, an idea based on the notion that “Canadian mothers were handicapped in their childrearing duties by an ignorance that could be remedied only through expert tutoring and supervision” (4).

⁵¹ Tina Loo discusses high modernist assumptions about “decadent nature” in her essay on BC’s hydro dams. She speaks of the notion that “a free, running river was wasteful: water flowed to the sea where its energy was lost forever. Properly harnessed, however, a river’s energy could be put to work powering industrial development and expansion.” The metaphor extends beautifully to post-war understandings of the female relationship to food. See Tina Loo, “People in the Way: Modernity, Environment and Society on the Arrow Lakes,” *BC Studies* 142/143 (2004), 163.

of plenty, still suffers from malnutrition problems such as scurvy and iron deficiency because mothers do not know enough about feeding children.”⁵² The notion that people needed to be told how to do things they had been doing for millennia was not new, but now it was refreshed by new reasons. Reports of enduring malnutrition amid affluence drew concern from health professionals and undermined the ideology of technological progress and economic growth leading to improvements for all. Education would combat the scapegoat of ignorance about healthy diet in an era of processed foods. In 1969, the Nova Scotia Department of Health indicated that

it is obvious from food records that a) the selection of food has to be taught and learned and b) income is not necessarily indicative...With more income, children may have more variety in food, but they also tend to have more snacks conducive to problems of overweight and dental decay.⁵³

When once it was assumed that only poor people made poor choices, ignorance was now extended to all social classes, which served to uphold the useful idea that inadequate incomes did not malnutrition make - poor choices did. The 1968 records of the Nova Scotia Department of Health indicate that demand had increased for nutrition programs yet again, and that “these referrals were from all socio-economic levels, pointing out that no economic group claims precedence in such problems.”⁵⁴ As late as 1974, during the revival of the natural/holistic as a source of health and wisdom, the Canadian Home Economics Association, in a brief to Marc Lalonde, Minister of National Health and Welfare, wrote, “there is no instinct which guides men to select those foods which meet the nutritional needs of the body. Each generation must be taught what foods to select and how foods affect health,” suggesting that, perhaps in a modern foodscape marked by excessive choice and infiltrated by quasi-foods like Jello and Cheez-Whiz, it was no longer possible to feed one’s self without a formal education.⁵⁵

In addition, experts in Nova Scotia, as in other places, expressed concern about “the lack of nutrition teaching to teenage students,” a concern based in part on the fact that

⁵² “Doctor says: Mothers lacking knowledge about feeding children,” *Regina Leader-Post*, June 20, 1961, newspaper clipping located at LAC, CDA fonds, MG28 I209, volume 6, “Scrapbooks, 1959-1961.”

⁵³ Nova Scotia, Department of Public Health, *Annual Report*, 1969, 69.

⁵⁴ Nova Scotia, Department of Public Health, *Annual Report*, 1968, 58.

⁵⁵ Canadian Home Economics Association, “Brief to the Minister of National Health and Welfare,” July 1974, LAC, Canadian Home Economics Association (hereafter CHEA) fonds, MG28 I359, volume 15, “Correspondence” series, file 6, “Food and Nutrition Committee – Reports, Briefs and Correspondence, 1955-1974.”

“many of the teenagers are marrying early and becoming parents.”⁵⁶ Old wisdom was dying out and science was rushing in to take up the torch, but that science was not necessarily available to everyone, least not young women. Still, young homemakers were encouraged to heed the CCN rather than their grandmothers, as they were encouraged to move to the suburbs away from extended family. As well, the deluge of new food products and a dramatic change in lifestyle complicated the modern dietary decision-making process. Relying on experts to outline a healthy diet seemed an appropriate way to ensure everyone got sane, standardized advice, by institutionalizing and then dispensing that knowledge through pamphlets and food guides. It sought to replace the handing-down of nutritional knowledge through tradition and family members, with a system that depended on courses and handbooks that could be updated as needed to keep up with scientific discoveries. Nutrition experts believed that making the home scientific and professional would give women had a better chance at navigating the choppy waters of healthy eating amid the siren songs of consumerism.

It may have also been that the professionalization of home economics was useful in stabilizing gender roles because it may have served to discourage women from seeking fulfilling employment outside of the home in the first place by portraying their existing domestic duties as already scientific, rational, important, and requiring a certain level of skill. They should not feel like they were missing out on fulfilling work because they already had it: they were professional *women*. Instead of competing with men, they could work on being better women. Stephanie Coontz writes that “Freudian ideas about gender difference even seeped into women’s colleges, the one arena where women had traditionally been encouraged to aspire to a life of the mind.”⁵⁷ To illustrate, she quotes Lynn White, president of Mills College from 1943 to 1958, who asked a graduating class to apply their talents and their intellect where they were most needed. He suggested, “why not study the theory and preparation of a Basque paella, of a well-marinated shish-kebob, lamb kidneys sautéed in sherry, an authoritative curry?”⁵⁸

⁵⁶ Dominion-Provincial Nutrition Committee, “Nutrition Teaching With Teenage Students,” Minutes (1961), LAC, Department of Health fonds, RG29, volume 3466, “Nutrition Division” series, “Minutes of the Dominion-Provincial Nutrition Committee (1959-1965).”

⁵⁷Coontz, *Strange Stirring*, 71.

⁵⁸ *Ibid.*

For some women, the professionalization of the home sphere may have partially assuaged frustrations about being cooped up in the house, longing for more purpose, but unable for whatever reason to pursue outside employment. And for others, those who could not even pretend to take joy or satisfaction in their daily toil, or who could not bake a cake or sew a stitch to save their lives, this professionalization served only to alienate them and make them feel inadequate. Tye recounts how her mother did not like to bake, but did so dutifully every week out of obligation, perhaps because she understood that she was living in a world where the preparation of food “was fundamental to the construction of womanhood.”⁵⁹ As such, to suggest that a woman did not know how to properly feed her family would be to undercut her sense of worth as a wife and a mother, and to breed insecurities that her efforts were inadequate or that her disinterest was pathological.

But it was not just young, uneducated housewives who felt insecure about feeding. McLaren, in the same article that condescendingly described overweight price protesters, alleged that “much of the insecurity housewives feel about food stems from lack of knowledge. People generally think they know everything there is to know about food but they don’t. It’s a complicated field.”⁶⁰ Such a statement simultaneously shoos laywomen away from the “complicated field” of food while revealing McLaren’s own insecurities about food knowledge as she desperately tries to justify herself and her profession, without which people had managed to feed themselves for millennia.

This insecurity might be attributed in part to the conceptual and technical distance that remained between the soft sciences of dietetics and nutrition and the hard sciences of food chemistry and biology. The biochemistry of food was mostly the purview white-coated men, while the majority of female nutrition experts were those who straddled the home and the laboratory. While male scientists were left to hash out the content of nutrition advice, women dispensed it and brought it to the ground to other women, but had less say in how it was formulated – ironic when you consider Patricia Crotty’s criticism that during the 1950s and 60s, the middle-aged male body was used as the barometer of health.⁶¹ Control of heart disease, which disproportionately affected this group, was used to calibrate nutrition advice

⁵⁹ Tye, *Baking as Biography*, 5,17.

⁶⁰ “Some women protesting food costs look overfed, food experts say,” *The Globe and Mail*, November 25, 1966, LAC, CDA fonds, MG28 I209, volume 8, “Scrapbooks, 1964-1966.”

⁶¹ Patricia Crotty, *Good Nutrition? Fact and Fashion in Dietary Advice*. (Crow’s Nest, Australia: Allen & Unwin, 1996).

for everyone, as governments and private organizations made sweeping dietary recommendations, like eat less fat.⁶² The gendered division of hard and soft sciences was compatible with associations of men with cerebrality and women with nurturance. Scientists sought the truth, and dietitians and nutritionists and home economists found ways to make that truth palatable, for example, by serving it with Cheez Whiz. The most prominent nutrition scientists were men: Ancel Keys, Jean Mayer, Charles Glen King, and Frederick Stare in the U.S., L.B. Pett, E.W. McHenry, and Frederick Tisdall in Canada. Men held positions as editors of nutrition journals and as heads of organizations like the CCN. A newspaper article describing a meeting of the American Heart Association indicates that, “a panel of eight prominent research men – including one Canadian – discussed conflicting concepts of the cause of the condition, which leads to heart attacks and strokes.”⁶³ The absence of women, who were actually the ones on the ground doing most of the nutrition work in homes, schools and institutions, from the theoretical realm, is telling. And as if to add insult to injury, directly below the article ran an item called ‘Your Morning Smile’ which featured a cartoon of a toddler playing in a flower pot and read, “Home counsellor’s hint – Somewhat better coordination is indicated when mother is in the kitchen sterilizing the baby’s bottle while baby is in the living room sampling the soil in the flower pot.”⁶⁴ Although light-hearted and meant to express the unpredictability of raising young children, the cartoon also ridicules the mother for her incompetence and suggests she needs expert help to be a successful mother, let alone a scientific one.

Dangerous Mothering

This image of the modern mother as incompetent and potentially dangerous was pervasive. This was not simply a problem of rotten teeth or excess kilograms. The inability of mothers - whether they be overly indulgent or overly strict - to adhere to appropriate boundaries with their children amounted to ‘Momism’, which was, “in view of most psychiatrists and the writers who popularized their works...the cause of almost every social ill,” including sissies, murderers, homosexuals, even Nazism, claims Coontz.⁶⁵ Motherly

⁶² *Ibid.*

⁶³ “...Question Theory of Fatty Diet As Key Cause of Heart Attacks,” unidentified newspaper, no date, LAC, HLC Fonds, MG28 I332, volume 124 “Conference” series, file 12, “Nutrition. Clippings, 1940-1977.”

⁶⁴ *Ibid.*

⁶⁵ Coontz, *Strange Stirring*, 48-9. Interestingly, *Sugar Blues* blames those very same ills on sugar consumption.

instinct, which had been increasingly derided since the end of the nineteenth century, was no longer enough to navigate the treacherous waters of feeding and caring for a child in the atomic age. The Dominion-Provincial Nutrition Committee's 1961 minutes read like incredulous critiques, a swapping of horror stories:

Babies are forced to take solids too early – forced to take solids at 1 month... Some babies are not started on solids soon enough, 1 baby was fed milk only at 1 year of age... Many young children are anemic. The parents say the children will not eat any vegetables or meats and will not drink milk... One mother fed her 2 children with a large plate of sweet biscuits ½ hour before supper. Mother thought it was just as well to fill them up on sweet biscuits since they won't eat their supper anyhow...Tooth decay as early as 2 ½ years... Too much prepared breakfast cereals. Not enough rolled oats, etc. (Breakfast not considered an important meal.)⁶⁶

Criticisms of children's nutrition could also be read as criticism of a certain kind of mothering – the kind affected by the both gains of the women's movement and the financial demands of consumer culture which had more women working outside of the house and thus increasingly reliant on products like prepared breakfast cereals. Individual women were often criticized for wider social changes over which they had marginal control, and held responsible for the turbulence of an entire society undergoing rapid change. These women were lambasted by professionals for “not enough rolled oats, etc.” and accused of not considering breakfast an important meal, when in fact, prepared cereal may have been all there was time for.

In addition, women were chastised for what were considered their characteristic flaws –nagging, pandering, excessive generosity. As we have seen with *Why Doesn't Tommy Eat?*, non-nutritive factors such as mood and emotional state had begun to be taken into account when it came to addressing dietary problems. As touched upon in a previous chapter, by the 1970s, there had been a shift away from the scientific toward the natural in conceptions of health, perhaps because purely scientific understandings of health had failed to yield the desired results. Faith in a sterilizing sort of science had been incredibly effective in the first half of the century in managing public health problems like the spread of infectious disease or high infant mortality rates. But as certain problems in public health were solved, new ones sprouted up, like the heads of a hydra. Improvements in sanitation and vaccination technology vanquished infectious diseases like cholera and tuberculosis in

⁶⁶ Dominion-Provincial Nutrition Committee, “Nurses' Suggestions Regarding Nutrition Problems,” Minutes, Appendix IIIb (1961), LAC, Department of Health funds, RG29, volume 3466, “Nutrition Division” series, “Minutes of the Dominion-Provincial Nutrition Committee (1959-1965).”

the West and allowed Canadians to live long enough for cancer and heart disease to develop in greater numbers.⁶⁷ As infectious diseases were slowly brought under control in less developed parts of the world, fears about global overpopulation bloomed, as articulated in Paul Ehrlich's ominous 1968 book, *The Population Bomb*. Indeed, even earlier, in 1954, MacRitchie was wondering whether widely devastating diseases "might have been a way of nature keeping a population balance, which today is getting 'off-centre' through our modern methods of fighting and overcoming inroads of disease."⁶⁸ He wondered in 1952 whether "modern medical science has created a new problem...Geriatrics."⁶⁹ Similarly, improvements in agricultural and production technology that enabled us to produce enough food to (at least theoretically, distribution issues notwithstanding) banish hunger introduced a new epidemic of nutritional problems such as obesity and atherosclerosis. The solution for one problem bred a slew of others, requiring at least a two-pronged approach – both science and feeling. The first was a Hercules to sever the heads of the hydra, the second an Iolaus to cauterize the wounds and prevent new heads from growing in their places. Science had, on a continental if not an individual scale, eradicated starvation, but because it could not solve every nutritional problem, non-nutritive factors like emotions began to be considered. Sugar is the most non-nutritive food of all, and a very emotional food. Indeed, the story of sugar has as much to do with psychic health as with physical. It is therefore useful to look at sugar to see how non-nutritive aspects of eating were treated, whether as valuable or as dangerous.

Eating Feelings

Despite the precise and scientific tone of nutritional advice, health workers in the 1950s, 60s and 70s also recognized the links between food and love and comfort. While food groups, calories and micronutrient content were important and were constantly stressed, the emotional aspects of eating were also increasingly promoted. As early as 1955, the director of Montreal's Mental Hygiene Institute was collaborating with the Quebec Dietetic Association to address the emotional aspects of feeding. Dr. Alastair MacLeod, assistant director of the MHI, complained of the tendency "to overemphasize the scientific aspect of nutrition and to neglect the emotional." This was important in regards to both the

⁶⁷ For a recent and eloquent articulation of this epidemiological shift, see Siddhartha Mukherjee, *The Emperor of All Maladies: A Biography of Cancer*. (Chicago: Scribner Publishing, 2011).

⁶⁸ Nova Scotia, Department of Public Health, *Annual Report*, 1954, 264.

⁶⁹ Nova Scotia, Department of Public Health, *Annual Report*, 1952, 27.

psychological development of children and in addressing problems like obesity. An article reporting on the collaboration noted that “emotional malnutrition” had only recently begun to be considered. In the article, MacLeod identified “underlying factors of loneliness and rejection” in cases of obesity. He claimed that children used food not only for “physical nutrition but to satisfy emotional conflicts. That is why the child often seeks what he considers ‘reward’ foods such as ice cream, cake and candy.”

MacLeod’s solution was “a greater emphasis on the emotional contentment of the person eating the food instead of on the food alone,” which he suggested could be achieved by “more pleasant surroundings, more leisurely meals and making meal-time a time of enjoyment and relaxation.” He claimed that “the setting of the meal is as important as its nutritional content. Also important is the emotional state of the person serving the meal.” Invoking a sense of leisure and relaxation could be accomplished by paying attention to the ‘frills’: “we have had to recognize the importance of pretty table cloths, attractive settings and pleasant company as playing an important role in nutrition.” The article noted, too, that “children will recognize, as quickly as an adult, a carefully prepared and attractively served meal. Variety in meals will arouse interest.” While this push to balance the psychological and physiological requirements of eating was well-intentioned, it increased the burden of mothers, who now had to balance health and taste while providing a relaxing atmosphere. Now, not only did mothers have to worry about providing cost-effective, nutritious and tasty food, but they also had reason to be anxious about ugly table cloths disrupting their children’s psychosexual development.⁷⁰

A 1950s Ontario Health Bulletin elucidated the perception that nutritional problems could be born of a mother’s character flaws. A sweet tooth was attributed to “a solicitous mother who has included sugar in strained fruit.” A child will not “ask for sugar on his porridge unless he has been accustomed to having it sweet; he may ask for sugar to follow the example of his parents.” The document also indicated that:

a “must” attitude or a moral one “this is good for you” is not generally successful. Parents should not insist but should expect children to eat good foods; the difference is important. Nagging will not encourage a child to eat but will provide him with a weapon for a struggle at every meal. Food should not become an issue for daily conflict – if that happens the child is not to blame... Children should not be

⁷⁰ “‘Frills’ in Nutrition Found Necessary,” *The Montreal Gazette*, October 18 1955, newspaper clipping located at LAC, CDA fonds, MG28 I209, volume 5, “Scrapbooks, 1954-1958.”

rewarded, particularly with a prize of candy, for eating the foods which we expect them to like.

It also stated that “the studies on food habits have indicated that many children have too generous amounts of sweet foods, like candy, soft drinks, pastry and cake”, suggesting that mothers needed to enforce more discipline with their children.⁷¹

Increasing the demands of domestic duties like cooking by suggesting women meet emotional and aesthetic requirements as well as nutritious ones made it more difficult for women to distance themselves from their homes. While convenience foods and household appliances theoretically reduced homemakers’ workloads, new expectations were piled on which kept time and energy demands level. For instance, Neuhaus describes how women “were expected to ‘be creative’ with processed foods,” as “serving your family food straight from the can or the package seemed to indicate an unwomanly interest in providing for your family.”⁷² She notes that while cookbooks in the 1950s relied heavily on processed foods, “they also directed women toward elaborate ruses to cover up the fact that they were using those convenience foods,” hence, MacLeod’s ‘frills.’ She describes “a proliferation of recipes which ‘doctored up’ processed foods and which required additional kitchen work in order to serve the very foods that were supposed to be more convenient.”⁷³ Neuhaus suggests:

the emphasis on glazing, decorating, and fussing with food, in the face of rapidly increased exposure to instant and canned foods, indicated unease over the implications of such processed foods. By ‘doctoring’ food, women retained their position as the only real cook of the family. Any member of the family could open a can, but only Mom knew to add chopped watercress and milk to a can of potato soup and make ‘Watercress Vichyssoise.’⁷⁴

MacLeod had stressed the importance of eating together as “equivalent to the heart role” which kept the family intact. He lamented that meals were too hurried and that “we are reaching a stage where we are neglecting the emotional state of eating.” The effect that modern eating habits were having on the shape of families was a well-articulated concern in the 1960s, and it was women who bore the brunt of it. The criticism that meals were too hurried fell directly upon the shoulders of working women. MacLeod insisted that “the

⁷¹ “Food Habits Begin at Home,” *Ontario Nutrition Bulletin*, no date, LAC, CHEA fonds, MG28 I359, volume 15, “Committees” series, file 15, “Nutrition Committee: Correspondence, 1951-1954.”

⁷² Neuhaus, 533- 534.

⁷³ *Ibid.*, 533-34.

⁷⁴ *Ibid.*, 535.

preparation of the family meal is a family ritual which is an essential for mental health. If the pace has become too fast to allow for it, then the pace of life should be reduced.”⁷⁵ While the family meal may or may not have been a family ritual, its *preparation* in the post-war era was usually a strictly female affair. As such, MacLeod’s recommendation that the pace of life be reduced if it became too fast to allow for leisurely family meals refers directly to any extra-domestic responsibilities a woman has taken on, for instance, work outside of the home. Nostalgia was a major feature of this kind of reasoning. McHenry similarly lamented that:

the worst feature of modern house design is the absence of a dining room. In the good old days – before the present age of speed – family meals were an institution. Cooking was an art which was appreciated and we didn’t try to eat a meal from a crowded little table in ten minutes flat.⁷⁶

The connection between food and comfort, both female duties, was particularly strong where sugary foods were concerned. In a 1966 article about child feeding, a nutritionist insisted that “food should not be substituted for love. When a child comes home in tears, don’t give him a cookie as a cure... give him love instead... later in life, people who tend to be overweight can usually trace the desire to eat to the inability to fulfill a need.”⁷⁷ The idea that obesity was the result of unfulfilled emotional needs in childhood made mothering and feeding all the more dangerous -not too much, of neither food nor love, and not too little. In the 1950s the discovery of a “pleasure centre” in the brain fueled discussions comparing eating to sex and addiction.⁷⁸ A 1958 article in the *Globe and Mail* reported that “people can become as truly addicted to food as to alcohol, and food addicts are harder to treat than alcoholics.” Dr. R. Gordon Bell, director of Shadowbrook Clinic, was interviewed and related a story about an obese individual, who apparently had no glandular problems, but who during childhood “had been completely denied love by a drug-and-

⁷⁵ It was during the post-war period that mental health emerged as a serious national concern in Canada. The Canadian Psychiatric Association was formed in 1951, and in 1966, a *Canadian Nurse* article called mental illness the “Quiet Disaster.” (“Fighting the Quiet Disaster,” *Canadian Nurse*, 62,6 (June 1966), 57.) For a discussion of the gendered associations between food and mental health, see Deborah McPhail, “This Is The Face of Obesity:” Gender and the production of emotional obesity in 1950s and 1960s Canada,” *Radical Psychology* [Online] 8:1 (2009/2010).

⁷⁶ E.W. McHenry, “Canadian Food Makes Meal Time Pleasant, Healthful Experience,” unidentified newspaper, February 24, 1951, LAC, HLC fonds, MG28 I332 volume 124, “Conferences” series, file 12, “Nutrition, Clippings, 1940-1977.”

⁷⁷ “Force Not Answer For Fussy Eaters,” *The Mail Star*, February 5, 1966, LAC, CDA fonds, MG28 I209, volume 9, “Scrapbooks, 1966-1967.”

⁷⁸ “Pleasure Centres’ of Brain are Studied,” *Montreal Gazette*, March 21, 1957, *Google News Archive*.

alcohol addicted mother, and had been left alone in times of trouble. As a defense, he persisted in the primitive response of eating, to go to sleep and forget his troubles.”⁷⁹ Again, the fine balance: don’t comfort your child with a cookie when he comes home upset or he might grow obese, but don’t ignore him, or he might grow obese.

Sometimes, though, we might want to exploit that capacity for comfort, and the links between food and feeling become very useful. During the Cold War, when the threat of nuclear annihilation sat quietly at the back of every mind, Canadians were making preparations through Civil Defense programs. In 1955, at the Second Nutrition Conference, food as a “tool for mass therapy” was discussed in regards to disaster relief, where “a well organized and ... efficiently planned rationing system would be... the most effective means of controlling and rehabilitating the urban population.” Here, food does more than merely provide physical nourishment, “it serves as a symbol to the homeless that the community is still functioning.” At the conference, Dr. J. Douglas Finlay, executive director of the Protestant Children’s Village in Ottawa, described his organization, which provided “specialized care to disturbed young children who have suffered severe emotional shock.” He indicated that the Village could be considered a “controlled situation” with subjects similar to a group of war-displaced persons “suffering from disaster.” The “remarkable progress” being made was chalked up to feeding practices, which Finlay insisted played an important role. He proudly reported:

I shall not forget the look of surprise on the faces of good people a year ago last March, when they came to me and said, “Mr. Findlay... What can we do to help the new programme? ...And I said, “You can bake cookies... Hundreds and hundreds of cookies.

For, you see, it has been our experience in work with emotionally disturbed children that they invariably regard food as a symbol of all pleasures, instead of just nourishment proper... and by the same token, an abundance of food is experienced as an abundance not only of good things in general but of an overall security. If someone were to ask me what is the most important single condition in work with disturbed children, I would answer quickly (from our experience at least) – good food, plenty of it, prepared and served by loving adults.

And so, on the strength of this premise, we began ‘operation cookie jar’ ...Two large cookie jars on the dormitory floor and an endless supply of cookies from friends of the Village... And that first night Teddy asks, “How many can we have?” ...and the

⁷⁹ “Some Hit the Icebox Instead of the Bottle,” *The Globe and Mail*, October 30, 1958, LAC, HLC fonds, MG28 I332, volume 124, “Conferences” series, file 12, “Nutrition. Clippings, 1940-1977.”

answer is, 'As many as you want' ... to which Joey responds, 'The guy's flipped his bloody lid!'

But they took as many as they wanted... as many as twenty and thirty cookies that night – up their pajama sleeves, in their pockets, balanced on their heads... and they staggered to their rooms... and one little guy queried, 'Can you trust the beggars?'

And the next morning hidden under mattresses, under pillows, wrapped in handkerchiefs... cookies. This continued for five nights and then, from within the group, 'Let's everyone just take five tonight!'

So that, cookies – along with cocoa, a bath and a bedtime story – became the nightly routine at the Village... And it is routines such as this which I am sure helps to bring order into chaotic lives... and certainly have some bearing on the fact that we have not yet had a runaway from the Village!

The facilitator agreed that “the provision of good food [is] the most important single condition in work with disturbed children – it is equally true in work with disturbed adults and hence the importance of emergency feeding in Civil Defense.”⁸⁰

The capacity for food to soothe and comfort the soul is entirely unrelated to its ability to nourish the body, which is perhaps why non-nutritive foods like sugar, coffee and tea, were included in emergency diets to be distributed weekly. The Canadian national emergency allowance put sugar at half a pound per person per week, and a discussion of defense necessities in 1959 accepted sugar and sweeteners as one such necessity and suggested that they should be treated as a separate category rather than included with beverages.⁸¹ It is interesting to see how sugar, which is described elsewhere as a poor food, is in these extenuating circumstances a 'good' one.

The increased stress on the emotional aspects of eating added another layer to the responsibilities of those who prepared meals. It called for an impeccable sense of balance, because comfort foods such as sugar were not necessarily compatible with good nutrition, and mothers were expected to cater to both. This explains some of the ambivalence about sugar's place in the diet and why sugar appeared on recommended menus for so long. Its

⁸⁰ *Second Nutrition Conference Proceedings* (1955), LAC, CHEA fonds, MG 28 I359, volume 28, “General Subject Files” series, file 1, “Department of National Health and Welfare: Second Nutrition Conference Proceedings.”

⁸¹ CCN, Minutes, “National Emergency Food Consumption Standard,” Minutes, Appendix IX, Table 1 (1962), LAC, Department of Health fonds, RG29 volume 3465, “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition. Binder 3 (1962-1969)”; CCN, Minutes (1959), LAC, Department of Health fonds, RG29, volume 3465, “Nutrition Division” series, “Minutes of the Canadian Council on Nutrition. Binder 2 (1946-1961).”

non-nutritive worth – as a reward, as a comfort, as a special occasion marker – found a place in a dietary landscape of a society riddled with anxiety. But because it was also a scientific society, sugar had to be carefully controlled – not too much, but enough. It was a weapon in the arsenal of the good life, and it had to be protected.

Conclusion

This chapter has looked at the ways in which dietary advice and expectations surrounding food preparation illuminate how understandings of gender were asserted and resisted. In an age of anxiety, soothing myths came up against harsh realities, and we see defiance as well as acquiescence in the spaces between expectations and outcomes. The decades following the Second World War were full of tension and contradiction, but the time can perhaps be aptly described as an era that yearned for control – over women’s bodies, which were rapidly becoming their own, over national bodies, which swelled and wheezed and threatened to undermine universal health care services, over children’s bodies, which were alleged to be suffering from either suffocation or neglect, over men’s bodies, which were growing soft and effeminate in the comfortable new affluence, and over the body politic, whose members struggled with “the double-binding injunction to be self-controlled, fit and productive workers, and to be at the same time self-indulgent, pleasure-seeking consumers.”⁸²

Competing ideas about women’s capacities to be cooks, mothers and consumers in an age of scientism and rapid professionalization made food preparation ambiguous territory. On the one hand, females were seen as natural fits for professionalized home economics work. On the other, they were considered to have poor impulse control and be unabashedly sensual – a dangerous combination when so many poor foods lined supermarket shelves. Criticisms of their bodies and buying habits were linked to character flaws like indiscipline and frivolousness. These allegations of ineptitude could then be extrapolated to question the female capacity for navigating job markets and marriage agreements. Continuing to represent women as distracted and whimsical in the media indirectly challenged their hard-won gains. This served to reassert gender roles in a time of great flux as a particular notion of masculinity lost its footing.

⁸² Nancy Scheper-Hughes and Margaret M. Lock, “The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology,” *Medical Anthropology Quarterly*, 1,1(March 1987), 26.

The great weight put on appropriate feeding, lest it induce nutritional or psychological problems in children later in life, made food a very scary affair indeed. Fear and anxiety were the source of much nutritional advice, and as such, the advice itself was coloured with it, and depended on guilt as a motivator. “Every mother is keenly interested in knowing how to feed her family to the best advantage,” one 1950s guide insisted - “Do you and your Family eat these foods every day?”⁸³ The reports from the Nova Scotia Department of Health recognized both the benefits and the limitations of using fear as an impetus in education:

Education seems to be a most important facet in our modern world – more and more people are being “educated” to deal with the technical aspects of living; at the same time, we seem to be developing more problems in the health field... in some of these areas, health education would appear to be very worthwhile, in others its use is problematical. Many health education programs have to introduce “fear” as a preventative... effect on mental health could be worse than the disease. Nevertheless, the public is entitled to the correct fact.⁸⁴

Nutritional advice that stressed health, taste, attractive presentation, and pleasant atmosphere could be overwhelming, contributing to anxiety and guilt among impressionable readers. But this guilt tended to be internalized – rather than chalking up any perceived shortcoming to material factors, it could instead be explained as poor or apathetic mothering. For example, when the aforementioned nutrition expert, Mrs. Joubert, discussed healthy options for children’s parties, she did so in a way that demanded exponentially more time and effort than would traditional party fare. Her advice to “disguise nutritious food” made a lot more work for mothers. However, she claimed that it was only “a little more time-consuming than putting out bowls of chips and popcorn and such, but it’s certainly much better for the children and they enjoy it just as much.” Rather than putting out bowls of chips, Joubert recommended serving eggs, which she alleged children would not eat because of their status as a healthy food. But by hard-boiling them, using toothpicks to affix black olive heads and arms, carrot eyes, nose, feet and muffler, children would be tricked into consuming the eggs, because “instead of an ordinary, healthy egg, there’s an eye-catching penguin.” The problem is not the penguin, which sounds delicious. The problem is Joubert insisting that this is only a “little” more work than putting out a bowl of

⁸³ *Family Nutrition*, no date, LAC, HLC fonds, MG28 I332, volume 124, “Conferences” series, volume 22, “Nutrition, Correspondence, 1951-1952.”

⁸⁴ Nova Scotia, Department of Public Health, *Annual Report*, 1969, 18.

chips, and that as such, mothers who do the latter do not value their children's health.⁸⁵ But such assumptions were never uniformly accepted. Korinek, in her look at letters to *Chatelaine* magazine, has demonstrated how some Canadian women in the 1950s and 1960s resisted or rejected advice that "glorified consumption or the perfect middle-class suburban existence."⁸⁶ She recounts an instance in 1961, where some readers co-opted the Mrs Chatelaine contest, "a contest created by Maclean Hunter executives to celebrate homemaking skills," and reformulated it "as a celebration of 'slobs,'" women who resented what they perceived as the contest's unrealistic standards, and who declared themselves to be perfectly happy in their imperfection.⁸⁷

The insistence that ignorant or hurried cooking was ruining children's health was a subtle way of criticizing the gains women had made in terms of employment and marriage equality. It bred guilt and anxiety by charging women with not devoting themselves completely to their children. Essentially, these criticisms were a way of talking about changes some people were uncomfortable with, and explaining why modernity had failed to solve every problem. As the *Kitchener-Waterloo Record* reported in 1958, "the most important factor on obesity... is that we live in anxious times with little outlets for anxieties and many people find solace in food and drink for their frustrations and hostilities."⁸⁸ In times like these, food and drink had to be carefully regulated, and mothers were responsible for maintaining the precarious balance between nutrition and comfort. While certainly prior to and during the war women were encouraged to make nutritious and appetizing meals, this emphasis on domestic perfection and professionalism in the post-war period can be seen as an exaggerated means of coping with the social and technological changes which undermined the strict gender roles which were thought to order Canadian lives and demonstrate a comfortable continuity with the past. A 1953 article about how women would relearn how to cook for civil defense saw potential disaster not as an opportunity to break out of rigid gender roles and allow people to contribute according to their individual

⁸⁵ "Disguise nutritious food for children's parties," clipping in unidentified newspaper, no date, LAC, CDA fonds, MG28 I209, volume 8, "Scrapbooks, 1964-1965."

⁸⁶ Korinek, *Roughing It In The Suburbs*, 19.

⁸⁷ *Ibid.*, 89.

⁸⁸ "Anxiety Claimed Cause of Obesity By U.S. Expert," *Kitchener-Waterloo Record*, June 11, 1958, LAC, CDA fonds, MG28 I209, volume 5, "Scrapbooks, 1954-1958."

strengths, but as a chance to reassert gender ideology and hence a sense of continuity, stability and comfort.⁸⁹

⁸⁹ "Civil Defence Calls Upon Wives To Learn To Cook All Over Again," clipping from unidentified newspaper, June 1953, LAC, CDA fonds, MG28 I209, volume 4, "Scrapbooks, 1947-1955."

Chapter 6: Conclusion

By the end of the 1970s, sugar had been fully derided by nutrition experts. No longer simply discouraged for dislodging more nutritious foods from the diet, sugar by the late 1970s was depicted as dangerous and disease-dealing in and of itself. And yet, its consumption continued, and while its suspected addictive qualities and established advertising budget played no small part in its survival, its continued use also hints at something less tangible, to some fundamental part of human nature that makes meaning. This thesis has traced the change in nutritional advice regarding sugar in Canada from the Second World War through the 1970s, and tied nutritional discussions to political, social and cultural ones. The way Canadians talked about food in general, and sugar in particular, was related to shifting conceptions of health, of the self, and of the relationship of the state to both. Discussions about food in Canada in the 1950s, 60s and 70s were not just shaped by nutritional quotas, but by a confluence of concerns and forces: consumer culture and new affluence, the ascendancy of science and the state over traditional sources of nutritional knowledge, rapidly fluctuating conceptions of gender, changing relationships between individuals and the state, ambivalence about science and technology, the ghost of Sigmund Freud. Nutritional advice during this time was connected to discourses about personal responsibility, about gender roles and the family, and about the balance between comfort and utility, health and death. In discourses about food, and in dietary and cooking advice, we can see where these anxieties intersected, and how they influenced what Canadians were told to put into their bodies. The period surveyed spanned the apex and decline of high modernist modes of thinking about food and diet, and witnessed the shift from 'scientific' to 'natural' conceptualizations of health. While nutrition experts tried to convey to the public an optimal, objective mode of eating, discussions about food were never purely scientific, for they always encapsulated contemporary concerns and assumptions about those doing the feeding and the eating.

After the war, the role of the state in Canadians' lives was renegotiated and greatly expanded. Chapter Two discussed how the establishment of the state as an authority on nutrition was emblematic of this shift into a new, more intimate position. Through the implementation of universal health care and the expansion of other social services, the post-war Canadian state took on greater responsibility for the care of its citizens' bodies. In

return, it enjoyed a commensurate increase in power to define the parameters of good health. In the context of the Cold War, the consolidation of a welfare state had to proceed carefully, for too much intrusion on citizens' personal lives could be equated with Eastern-style totalitarianism. The rhetoric of free-market liberalism managed to flourish alongside the expansion of the state, but this necessitated careful maneuvering. To avoid the perception that the state was overstepping boundaries and arbitrarily imposing its will on the populace, health and nutrition advice that came from the state were presented as objective and scientific. However, the aspiration to uncontroversial science, which ran deeper in government than it did in other nutrition organizations, actually rendered the state less effective by constraining it to very basic advice, which many citizens and consumers found unsatisfactory.

Dietary advice in post-war Canada was guided by the following tenets: it purported to be scientific and objective; it depended on an educational paradigm; and, especially where governmental organizations were concerned, it was conservative in its recommendations and wary of ostracizing any one food. The latter two tenets were important in maintaining appropriate boundaries between the state and the self. The former two introduced a moral element. Representing ideals of health as guarantees equally available to all Canadians endowed these ideals with a certain measure of apolitical objectivity and represented poor health actions as immoral. A healthy population was certainly in the interest of a state that was taking on more responsibility for its citizens' medical expenses, so promoting its particular understanding of healthy eating was important. At the same time, because of the resistance to state intervention in private matters like diet, which was heightened in Canada during the Cold War, government nutritionists were wary of telling people what to do. Emphasizing lifestyle education had the effect of both preserving a sense of personal choice and deflecting responsibility for structural contributors to poor national health. As discussed in Chapter Five, in the 1960s, Canadian women protesting high food prices were depicted in the media as ignorant and entitled, and simply unaware of how to make responsible food purchases – burying the question of whether food prices really were too high. The state ostensibly fulfilled its responsibilities by, for example, telling its citizenry not to eat sugar, or smoke, if it wished to avoid heart disease. Then, those who succumbed to the disease were to blame for their conditions, not the state that warned them or the socioeconomic conditions perpetuated by

the state which may have contributed to heart disease, or to the consumption of cigarettes or sugar.

Chapter Three focused on sugar as a case study to trace change in nutritional advice during a period that saw many social changes. It demonstrated that advice regarding sugar consumption, whether it came from the state or other actors, changed slowly and unevenly, but definitively, between the 1940s and the 1970s. It also suggested that the gradual exclusion of sugar from descriptions of healthy eating had as much to do with concerns about modernity and excess as it did with emerging scientific data blaming sugar for a variety of ills. Although a causal relationship between sugar and chronic disease was never definitively established, and as such, its consumption was never expressly prohibited, sugar's well-documented effects on dental health, and its calorie-rich, nutrient-poor profile on a continent increasingly concerned with the width of its collective waistline, ensured that it was eventually reconceptualized as an undesirable food and excluded from descriptions of healthy eating. Concern about hidden or added sugars, which was fully articulated by the 1970s, had as much to do with physical health as it did with waning consumer trust in food producers' affinity for additives, and a growing ambivalence around technology. While on the one hand, readily-available calories in the post-war North American foodscape made the concept of sugar as an energy food less enticing, for some people, growing skepticism about the technologies which produced this variety and volume of foods made 'natural' sugar a more appealing option than laboratory-born artificial sweeteners. This had the interesting effect of partially rehabilitating sugar, especially less refined brown sugar, just as sucrophobia peaked in the 1970s, when Harvey Levenstein contends that "the growing suspicion of refined and processed foods helped turn sugar's whiteness into a cross to bear. In the new age of reverence for darker foods, brown sugar and honey simply *looked* healthier."¹ For many Canadians, compared to artificial sweeteners, whose safety had not been established in the public mind, sugar looked relatively good. We see a similar scenario today as sugar is derided by many as irredeemably unhealthy, and yet is often presented as preferable to high fructose corn syrup or artificial sweeteners. Refined sugar continues to straddle the boundary between wholesome and horrible -- evil, but perhaps a lesser evil in a foodscape that has become increasingly processed and synthetic.

¹ Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (Oakland: University of California Press, 1994), 191.

The emphasis on personal lifestyle responsibility articulated throughout the documents I examined was compatible with state nutritional authority because it alleviated the state's responsibility to provide access to nutritious food and allowed it to depend on an educational paradigm of self-regulation, thus preserving the freedom of both the individual subject and the market. This kind of political contortionism was necessary for a young welfare state stifled by the polarizing atmosphere of the Cold War. The simultaneous liberalization of attitudes toward, and condemnation of, potentially dangerous substances was based in the assumption that subjects of liberal governance could and should be responsible for attending to their own health. This new form of social regulation recognized the place of pleasure in human decision-making processes. Mariana Valverde, who has studied the moral regulation of alcohol, noted a liberalizing shift in professional attitudes toward alcohol at the moment alcoholism was being conceptualized as a disease that affected certain individuals.² Rather than advocating repressing alcohol use across the population, professionals who recognized the importance of pleasure instead endorsed the rational use of alcohol in a sort of "enlightened hedonism," and pathologized individuals who were unable to control their use of the substance, rather than the substance itself.³ Valverde quotes psychiatrist Dr. Abraham Myerson's article in the first issue of the *Quarterly Journal of Studies on Alcohol*, published in 1941, to illustrate this shift toward a neo-Freudian understanding of social regulation: "This does not mean a lessening of social control in the use of alcohol. It means taking account of human pleasure and human needs. It means we must not minimize the pleasure principle."⁴

Such a stance was not rooted simply in ideas about pleasure, but to the relationship between self-governance and freedom. Valverde indicates elsewhere that, paradoxically, the success of Alcoholics Anonymous "contributed to normalizing the heavy drinking that became common in the 1940s and 1950s across class and gender boundaries in North America and in other developed countries" by turning alcoholism into a personal identification.⁵ The problem, then, was not alcohol, but a defect in the minority of people

² Mariana Valverde, *Diseases of the Will: Alcohol and The Dilemmas of Freedom* (Cambridge: Cambridge University Press, 1998).

³ *Ibid.*, 97.

⁴ Abraham Myerson, "'Alcohol: a study of social ambivalence,'" in *Quarterly Journal of Studies on Alcohol*, 1 (1940-1941), 12-20, as quoted in Valverde, *Diseases of the Will*, 97.

⁵ Mariana Valverde, "The Power of Powerlessness: Alcoholics Anonymous's Techniques for Governing the Self," in *Moral Regulation and Governance in Canada: History, Context and Critical Issues*, ed. A. Glasbeek (Toronto: Canadian Scholars' Press, 2006), 300.

who became alcoholics. Canadian nutrition experts, looking to strike a balance between health and liberty by producing a self-governing populace, maneuvered in a similar manner when they urged Canadians to limit, but not eliminate, sugar. Lacking adequate scientific evidence that sugar was inherently deleterious to health, public nutrition experts attributed its reported ill effects to the result of some flaw in the individuals who, unable to resist sugar's temptation, succumbed to the effects of its over-consumption. Valverde indicates that the interests of AA were "not necessarily opposed to those of the liquor industry because AA did not challenge the post-World War II project" of "enlightened hedonism."⁶ By pathologizing a discreet group of individuals, it normalized drinking by non-alcoholics. In the same way, nutrition advice that linked disease to an *excess* of sugar consumption actually complimented the interests of the sugar industry (and liberal capitalism more generally) in that it normalized the consumption of moderate amounts of sugar. In its emphasis on personal bodily control, the state's advice regarding sugar consumption can be compared to other state-sanctioned but regulated vices like alcohol consumption, tobacco use, and gambling.

Chapter Four discussed how in the post-war period, as now, nutritional science was not clear-cut, and was further complicated by industry involvement. Many industries employed nutritionists who also worked for the state or had positions on the boards of voluntary organizations, resulting in significant overlaps and conflicts of interest. Food industries had much greater financial resources than did most university science departments or governmental or voluntary organizations, and their funds contributed importantly to the North American nutritional research infrastructure. Some industries, like sugar, had their own research foundations, whose fruit could be problematic because they operated on the assumption that their products were, if not beneficial, at least benign. The Sugar Association's work in marketing and public relations responded to nutritional criticisms in ways that could be confusing for consumers, who were bombarded from all directions with conflicting advice. The resulting confusion regarding sugar's healthfulness assured its continued, if ambivalent, place in the Canadian diet.

Sugar was simultaneously derided as a symbol of the dangers of modern excess and used as a means of channeling comfort and nostalgia for "simpler times" during a period of social upheaval. The last chapter analyzed some affective dimensions of feeding to explore

⁶ *Ibid.*

how sugar retained a place in Canadians' diets despite a growing consensus that it was not healthy. It looked at the ways discussions about food preparation and diet contained criticisms of the modern mothers and anxieties about modernity more generally. It also touched upon the moralizing effects of considering health in terms of lifestyle and the consequences of treating malnutrition as a problem of education rather than resources.. The perceived results of 'lifestyle choices' on bodies were then interpreted as indicating either an individual's laudable control or undisciplined sensuality. This had the twin results of, on the one hand, obscuring social sources of ill health or malnutrition, and on the other, discrediting those whose bodies did not conform to official conceptions of good health. In the case of women, (whose bodies were not only more highly scrutinized than men's, but also tend to have a higher percentage of body fat) the conceptual links between alleged dietary intemperance and poor general impulse control meant women who were slowly penetrating previously male-dominated spheres of society such as government and the workplace were taken less seriously. Their social and political capital may have been increasing, but mostly on paper, for well into 1960s and 1970s, understandings of women's bodies and minds as inherently less ordered, less rational, and less able to withstand temptation remained. The depiction of children's poor diets as the result of parental (read: motherly) ignorance or neglect rather than the result of poverty, whether temporal or financial, provided a way of talking about the uncomfortable new economic and social reality - the increasing normalization of women leaving their homes or their husbands - without explicitly challenging it.

As the glow of technology wore off in the late 1960s and early 1970s, Canadians began to worry that their modern lifestyles were actually making them sicker, not better. Until about the mid-1960s, perceived failure to meet the high standards of science had provided a source of anxiety for many individuals. For example, Levenstein indicates that the wartime "discovery" of subclinical malnutrition increased reliance on experts, because there was no way for an ordinary person to know whether one was undernourished without consulting a professional.⁷ Increased reliance on experts in the 1940s and 1950s bred doubt

⁷ Levenstein, *Paradox of Plenty*, 67. During the war, the US nutrient intake recommendations were raised to levels above and beyond that which would ensure the health of its population's strongest and most active citizens. This meant that those, and there were many, who were not meeting the recommendations could be classed as deficient in a host of nutrients. For a discussion of the debate in Canada regarding whether to adopt an 'optimal' or a 'baseline' nutrition standard, and the accompanying difference that would make in the number of people classified as malnourished, see Aleck Samuel Ostry, *Nutrition Policy In Canada, 1870-1939* (Vancouver: University of British Columbia

among lay people regarding their own innate abilities to feed and care for themselves and their children, which in turn fostered feelings of guilt and inadequacy among some mothers, feelings that were exacerbated by psychologists shaped by neo-Freudism and Momism who suggested that unattractive table settings might impair their offspring's psychosexual development. Placing nutritional authority, once the in the dominion of women, in the state, weakened female power by implying that mothers needed professional instruction to do things, like feed their children, they had been doing forever. But by the late sixties, the reverence and trust in official sources of authority that had marked the first few decades after the war was fading fast. Experts were losing clout. Faith in food producers, high during and immediately following the war, when industry was encouraged by the Canadian Council on Nutrition to hearken to the Food Rules in their advertising, had plummeted by the 1970s. Around this time, concerns about 'hidden sugars' were emerging, emblematic of a Canadian public concerned that harmful elements were seeping in to their lives and food supplies.

The scientific approach to dietary advice favoured by the CCN and Nutrition Services in the 1950s, 1960s and 1970s fell short for several reasons. Firstly, it was easily polluted by industry science, which was not only alarmingly prolific and well funded, but was also presented in such a way that for many lay people, it was indistinguishable from its more academic variety. Such maneuvering exploited the high level of public trust in experts many Canadians had in the 1950s and early 1960s, and eventually contributed to its decline. Secondly, the objective, scientific approach failed because the body-as-machine trope it utilized was incomplete and inadequate, not merely physiologically, but, more importantly, emotionally. Scientific discourses about eating bumped up against rather more visceral ones. For many Canadians in this period, an undercurrent of anxiety flowed beneath the everyday ongoings by which the time was passed.⁸ This anxiety was related to the constant threat of nuclear annihilation that marked the Cold War, and to a growing sense of alienation attributable to the atomization of North American society that occurred with the post-war advent of suburbs, car and corporate culture, and the growth of mass media. Jackson Lears describes the post-war period in North America as one of "a sick consumer culture which had contained chaotic impulses and spread middle class prosperity, but at the

Press, 2007) and Ian Mosby, "Making and Breaking Canada's Food Rules: Science, the State, and the Government of Nutrition," in *Edible Histories, Cultural Politics: Towards a Canadian Food History*, ed. F. Iacovetta, V. Korinek and M. Epp (Toronto: University of Toronto Press 2012), 409-432.

⁸ Valerie Korinek, *Roughing It In The Suburbs: Reading Chatelaine Magazine in the 1950s and 1960s* (Toronto: University of Toronto Press, 2000), 5.

price of chronic nervousness.”⁹ The consumption of sugar both eased post-war anxieties and contributed to them. The comforting taste of sugar and the celebratory cultural contexts in which it was often consumed presented one way of dealing with this chronic nervousness, even as the substance itself became something to fear. Because sugar resisted rigid classification as either a good food or a bad one, instead flowing between those categories according to context, it represented the ultimate challenge for nutritionists seeking to balance the physical health and emotional needs of a nation. Writing in 1945, economist Friedrich Hayek stated, “today it is almost heresy to suggest that scientific knowledge is not the sum of all knowledge. But a little reflection will show that there is beyond question a body of very important but unorganized knowledge which cannot possibly be called scientific in the sense of the knowledge of general rules: the knowledge of the particular circumstances of time and place.”¹⁰ A nutrition program that featured simplistic, sweeping dietary advice and was based purely on an educational model failed to eradicate nutritional problems and diet-related diseases because it did not account for the economic, emotional or cultural barriers to its full implementation. More importantly, it was based on the faulty assumption that Canadian consumers were a homogenous and rational group that would consistently prioritize health over taste.

Sugar retained a place in the Canadian dietary for numerous reasons, both pragmatic and pathetic. On the practical side, the work of industry groups like the Sugar Association kept consumers confused as to the actual worth of sugar as a food, and their efforts were abetted by the CCN’s tepid response. Sugar’s utility in food processing meant it appeared in many, many, pre-made and convenience foods, from bread to ketchup. But the emotional reasons for sugar’s persistence on plates and palates is perhaps more important. A purely nutritional assessment of any food falls short because food is not a purely physical form of nourishment, indeed, it is “never just something to eat.”¹¹ Physiologically addictive or palate-pleasing effects aside, sugar has embedded itself culturally into Canadian diets. Birthday and wedding cakes, hot tea and coffee breaks, cotton candy at the carnival, Christmas cookies, ice cream on a hot day, or even just the simple act of indulging in dessert,

⁹ Jackson Lears, *Fables of Abundance: A Cultural History of Advertising in America* (Basic Books, 1995), 256.

¹⁰ Friedrich Hayek, “The Use of Knowledge in Society,” *American Economic Review* 35,4 (September 1945), 519-30.

¹¹ Margaret Visser, *Much Depends on Dinner* (Toronto: Harper Collins, 1988), 102. This concept was already beginning to take hold in the social sciences with Claude Levi-Straus’s 1964 publication of *The Raw and the Cooked*.

are all riddled with meaning. As Cohn discussed, we have made these foods into treats that signal breaks in labour and real life.¹² Atlantic Canadian settlers “traded lumber, salt fish and salt beef for sugar, molasses and rum,” an exchange that struck me for its apparent differential in utility.¹³ At first glance, it was easy for me, from the comfort of the enlightened future, to tsk-tsk those silly settlers for trading utility for luxury. But not only was molasses, according to Tye, key to the survival of many families, there is something essential and useful in ‘luxury’ itself.¹⁴ These little luxuries are actually a kind of necessity. Sugar, like rum, or tobacco, or lottery tickets, is among the products we consume not because they are good for us or useful to us physiologically, but because they are ripe with meaning and symbol. In fact, they are often consumed because of, and not in spite of, their ‘badness.’ As Vance Packard indicated at the end of *The Hidden Persuaders*, “when irrational acts are committed knowingly, they become a sort of delicious luxury.”¹⁵ And until that human impulse is extinguished, or until we create alternative cultural connotations for sweetness, sugar will probably remain, even if just for special occasions, for the cultural context in which we consume it speaks to our impulse to make meaning, to what Lears describes as the human drive “to find the eternal in the ephemeral, the cosmos of hope amid the kingdom of necessity.”¹⁶

¹² Cohn, “Being Told What to Eat.”

¹³ Diane Tye, *Baking as Biography: A Life Story in Recipes* (Montreal: McGill-Queens University Press), 62.

¹⁴ *Ibid.*

¹⁵ Vance Packard, *The Hidden Persuaders* (New York: Random House, 1957), 228.

¹⁶ Lears, *Fables of Abundance*, 348.

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