

Concerning the environment, Hermann introduces this early on in relation to post-Marxism, André Gorz's theory on work time, and the consumption of commodities. However, the relationship between work time and sustainability is not developed as explicitly as it might be in the rest of the book, and the reader is left to join the dots up. Ecological sustainability is one of the arguments offered for a thirty-hour work week since this will result in a more sustainable environment, presumably because people will consume less and spend more time on community work. However, this presupposes that community work has a lesser environmental impact relative to individual consumption. And, little is said about consumption time. At the risk of being flippant, if people use increased leisure time to race monster trucks, little may be achieved. Key is how people are educated about environmental impact, which is not explored or considered in Hermann's book. There may also be an issue regarding the proposed redistribution of work from the employed to the unemployed (and underemployed). Increasing the availability of work to those who are time-rich and cash-poor may result in a net increase in aggregate consumption, since the wealthier may not consume all that they earn. Whilst, normatively, we would support the redistribution of work, this has to be applied concurrently with steps to reduce aggregate consumption.

Another of Hermann's arguments for a thirty-hour work week is the positive effect reduced hours will have on health. The relationship between health and working hours is introduced at the end of the book, though health and safety at work is cited as the main reason for work time regulation in relation to the EU Working Time Directive introduced in 1993 (93/104/EC), and revised in 2003 (2003/88/EC). Of course, work can also have beneficial effects on health, and redistribution of work is likely to increase societal welfare.

Overall, we enjoyed reading and discussing this book immensely. In terms of shortcomings, observations thus far notwithstanding, they are small, relative to the contribution Hermann makes to scholarship more generally. We did feel some of the empirical literature on absolute surplus-value production was neglected, but, overall, this is a well-crafted book that contributes wonderfully to research on work time and associated conflicts. Its main contribution is to give conceptual structure to a complex, contested, and highly relevant (policy) theme in contemporary labour market studies.

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Setting Nutritional Standards. Theory, Policies, Practices. Ed. by Elizabeth Neswald, David F. Smith, and Ulrike Thoms. [Rochester Studies in Medical History.] University of Rochester Press, Rochester (NY) 2017. vii, 230 pp. Ill. \$99.00. (E-book: \$29.99.)

Nowadays, most governments publish dietary guidelines to help promote health and prevent chronic disease among current and future generations. Users of dietary guidelines are

commonly led to believe these guidelines merely reflect the current state of scientific knowledge in the field of nutrition. But do they? This book on nutritional standards, defined as “standards in terms of foodstuffs, quantities of nutrients, and dietary needs”, tells a different story.

In Chapter one, Elizabeth Neswald addresses the search for dietary norms. In the 1860s, Voit and Pettenkoffer, two German scientists, tried to establish through a series of laboratory experiments the metabolic needs of a “normal man”. Although these experiments were useful in differentiating between normal and pathological conditions of individuals, they gave no information on the average needs of *populations*. In the context of industrialization and social reform movements, dietary norms applying to workers were especially welcomed by government officials. So, together with home economists and statisticians, nutrition researchers started to investigate diet and nutrition in more real-life conditions. Consumption and budget surveys were conducted, and thanks to the work of Rubner and Atwater consumed amounts of food and drinks could be converted into calories. Atwater, an American, introduced the “average worker”, and estimated rather than calculated “his” energy needs. He found that Americans consumed a lot more (energy) than Europeans. His initial position was that the generous American diet reflected a higher standard of living, and was potentially unhealthy. But within a couple of years he changed his position, now claiming that American consumption levels reflected higher energy output because Americans worked harder than Europeans, and by doing so achieved a higher standard of living. So, the purpose of dietary norms was not only to promote health, but also to sustain increased labour productivity.

Chapter two, by Corinna Treitel, focuses on the role vegetarianism played in the 1860s and 1870s in the revision of the protein standard: an average working adult would require 118 grams of protein daily, supplied by a meat-based diet. Meat was considered essential for building muscles and enabling the body’s physical labour. The German vegetarian movement believed vegetarianism “promoted health, saved money [...], and held the solution to the social question”. The German physician Rudolf Virchow held a radically different view. Using evidence from anatomy, anthropology, and history, Virchow claimed that only mixed diets, containing bread and meat, sugar and salt, beer and wine, are compatible with the “highest achievements of the human race”. Representatives of the German vegetarian movement ascribed the meat claims of German physiologists and physicians to their adherence to bourgeois norms, rather than to scientific evidence, while acknowledging that both parties did not have sufficient evidence on the benefits and harms of actual meat consumption levels. According to the author, the common class background among the educated bourgeoisie facilitated the debate among scientists, vegetarians, and lay people on the relative merits of meat consumption. These contacts set into motion scientific research into the effects of vegetarian diets.

After the Franco-Prussian war of 1870–1871, reformers attempted to design measures “to improve the quality and the quantity of the French population”, writes Deborah Neill in Chapter three. Researchers interested in improving diets among working-class families to fight off tuberculosis also addressed the meat or protein issue. Though strongly convinced of the value of meat, they realized fresh meat was too costly for many working-class families, while cheaper meat products were potentially unsafe. They concluded that workers should reduce meat consumption. As alternatives, they suggested other protein-rich foods, such as smoked herring, cheeses, and dried peas, thereby assuming working-class families had only weak nutritional knowledge. According to Neill, this reflected their middle-class

prejudices. Just like Germany, France had its movement of vegetarians. Their views met strong opposition from French physicians, who propagated a mixed diet, arguing, among other things, that “people of the white race who are the most active and enterprising are those who eat the most meat”. The assumed relationship between meat consumption and national character was a persistent one. At the beginning of the twentieth century, a mixed diet was promoted because balance would improve character: too much meat would make man aggressive, no meat would make him passive.

Chapter four deals with the soldier’s food in Germany in the second half of the nineteenth century. In the mid-1860s, medical and military doctors observed that many young men were unfit for military service. They argued that having the military administration spend more on food would pay in terms of increased performance and health. From 1878 onwards, the Prussian state authorities gave military doctors responsibility for the nutrient content of the diet. This meant, practically, more animal protein. Voit demanded the field diet contain 500 grams of raw meat, and justified this claim by arguing “that meat was an easily digestible, concentrated food, whereas large amounts of vegetables and especially of coarse rye bread were seen as a heavy burden for the fighting body, since they slowed down the process of digestion”. In the early decades of the twentieth century, the focus changed from protein to vitamins – many were discovered in this period – and vegetables, brown bread, and fruit gained new interest. Dietary schemes were reformed. But as early as 1940, nutritional physiologists were warning against an undersupply of protein. Studies on work efficiency conducted by army physiologists showed higher performance in the case of larger quantities of animal protein.

Chapter five explores an episode in which two groups of nutrition scientists attempted to demonstrate connections between nutrition and health, each focusing on their own favoured nutrients. David Smith believes nutrition scientists are often enthusiastic about the value of specific nutrients, which makes them not only scientists, but also activists. The context of his essay is Britain in the interwar period. One research group, led by Edward Mellanby, investigated the role of vitamins in resistance to infections. The other research group, led by John Boyd Orr, investigated the role of minerals in resistance to infections. Mellanby made sweeping statements, based on no more than preliminary evidence. Boyd Orr downplayed the role of vitamins, and stressed the role of minerals in resistance to infectious diseases. Smith concludes that both Mellanby and Boyd Orr tried to regain nutrition scientists’ influence in shaping Britain’s food policy. During World War I, they had been influential because of “the need to maintain the efficiency of the military and civilian population via the application of energy and protein standards”, but after the war the state was no longer interested in the management of food supplies.

Chapter six, by Ina Zweiniger-Bargielowska, deals with the controversy about white versus wholemeal bread in interwar Britain. In the last quarter of the nineteenth century, white flour and bread was a staple food among the working class, and was associated with civilized life, while brown bread was associated with poverty and dirt. White bread also symbolized the superiority of British civilization. According to health education pressure groups, civilized life caused serious problems, including large-scale constipation owing to a lack of dietary fibre. One of these pressure groups, the New Health Society (NHS), issued a so-called wholemeal manifesto in 1927, also recommending increased consumption of milk, fruit, vegetables, and restricted amounts of meat. Among the leading members of the NHS were a eugenicist, a radiologist, a physician, and a biochemist. They were inspired by the work of the Danish physician and nutritionist, Hindhede, who was “charged with

formulating a nutrition policy in response to the German Blockade of Denmark in 1917". He advised reducing the number of livestock, notably pigs. As a result of this measure, wheat bran and grains normally fed to animals became available for human consumption. The decline in protein intake was compensated with extra milk. These measures coincided with reduced Danish mortality rates. For Hindhede, this signified the value of "nature's call for simplicity" in contrast with conventional diet. Several prominent physiologists published a counter manifesto. They argued that good-quality white bread was wholesome and nutritious. Claims by the NHS that consuming white bread could lead to vitamin B deficiency were denied, because the vitamin was present in many other foods consumed by the working class. NHS leaders were not impressed: they argued that the working-class diet was dominated by white flour, sugar, chocolate, fat, and meat, and "simply did not contain enough vitamin B". Unlike the discussion on the protein standard, the white versus brown bread controversy persisted until the 1980s. Zweiniger-Bargielowska concludes: "the dominant scientific and medical position favoured white flour and bread, because it was perceived as an integral aspect of a superior British civilization [...]".

Chapter seven, by Suzanne Junod, discusses the origins of nutrition labelling in the US, and focuses on the declaration of the net weight of packaged food products. She highlights the role of women's activism in the passage of the 1906 Act and its amendments. The increasing importance of packaged food made it increasingly difficult for women, usually responsible for buying foods and preparing meals, to determine prior "to opening a can whether it was properly filled or whether its net weight was a result of too much liquid filler rather than solid product". This chapter has merits from a social historical perspective. However, it has little or nothing to do with setting *nutritional standards* as defined by the editors.

Chapter eight, by Nick Cullather, focuses on the biopolitical aspects of famines. A famine stripes a regime of its legitimacy. So, a national government will try to prevent a famine, or to cover it up. Knowing in advance when a famine threatens would be helpful. In the 1960s, the Food and Agriculture Organization of the United Nations (FAO) and the United States Department of Agriculture devised the concept of the national food balance sheet. Ingredients of the balance sheet are agricultural output, population figures, and nutritional needs. Forecasting an impending famine entails triangulating predicted harvests, population figures, and nutritional needs. So, there is a substantial risk of mis-prediction. Besides, the prediction pertains to the aggregated national level, not to local or regional levels. Therefore, it is up to officials to guess where and when a food crisis could hit.

In 1966–1967, a food crisis came to be declared in the state of Bihar (India), although by its very nature the national balance-sheet method revealed no regional information. But political motives came into play. Authorities of the state of Bihar, which had recently broken with the ruling Congress Party, accused the central government of neglect, while the central government accused the state administration of incompetence. The US government, headed by Lyndon B. Johnson, pushed the Indian central government to declare a famine in Bihar, and pushed "reforms that radically shifted power toward the center, establishing a national food budget, national grain reserves, and extending central authority into every rural village". One of the motives of US policy was its firm conviction that "state separatism would be the vehicle for communist penetration of the subcontinent".

The editors hope that lessons can be learnt from the case studies they have presented, and recommend both nutrition scientists and historians read their collection of essays. What lessons can be drawn? That nutrition scientists are often overenthusiastic about their latest

discoveries? If so, in this respect, they do not differ from most other scientists. That collaboration between nutrition scientists and alternative actors can be helpful? Sometimes it was, as was shown by nineteenth-century Germany with respect to the protein standard. But I think the more important lesson is that notions inspired by class prejudices, ideology, power motives, and lifestyle preferences (natural versus civilized life) can and will be mixed up with scientific claims by nutrition and other scientists from biomedical disciplines.

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GARVÍA, ROBERTO. *Esperanto and Its Rivals. The Struggle for an International Language.* [Haney Foundation Series.] University of Pennsylvania Press, Philadelphia (PA) 2015. viii, 226 pp. \$55.00; £36.00

From roughly the 1880s until the 1920s, the issue as to which language should be the international lingua franca was an important intellectual battleground, particularly in Europe. English was slowly on the rise, but German was still going strong as a language of international scholarship, whereas French functioned as the language of international diplomacy. Yet, around this time, many Europeans became more interested in another type of solution, one that was considered more efficient and more democratic: that of a language specifically designed for this purpose.

Soon, the proponents of different “artificial languages” started fighting each other. The reasons behind these battles were not necessarily that people disagreed on whether the ideal language should use *ed* or *kaj* for the word “and”, or whether it should have grammatical cases. In his book *Esperanto and Its Rivals: The Struggle for an International Language*, the Spanish sociologist Roberto Garvía clearly shows that the disagreement was, to a large extent, also a battle about who should be in power within such a language.

Garvía concentrates on three main language projects around this time. The first was Volapük, invented by Johann Martin Schleyer (1831–1912), a Catholic priest living in Litzelstetten in southern Germany, close to Konstanz. Schleyer believed that the language was presented to him in some kind of revelation. Initially, he did not really seem to know what the purpose of this “international” language was, as Garvía demonstrates. The time was ripe for the idea of an international language; however, and only nine years after Schleyer published his first sketch of the language, there were fifteen Volapük journals and 257 clubs all over the world. “In some European countries”, Garvía writes, “the language was also taught in public schools, business schools, and universities, and a new profession, *Volapükatidel*, or teacher of Volapük, was created”.

Yet, within a few years, that all evaporated. The main reason seems to have been the fierce discussion between Schleyer and his followers, such as the Frenchman Auguste Kerckhoffs (1835–1903). While for Schleyer, Volapük was supposed to mostly replace Latin as an international language for subtle intellectual discussion and poetry, Kerckhoffs believed that it should serve as a language for international trade. This implied also a difference in opinion