

Food Consumption in the Genomics Era: A Foucauldian Perspective

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Introduction

When Michel Foucault (1926-1984) in the 1980s shifted his focus of attention from the analysis of power regimes to the "technologies of the self", a considerable part of his readership was obviously disappointed. In the 1970s (notwithstanding his rather introvert and withdrawn personality) Foucault had become a highly *visible* philosopher, a philosopher-activist, involved in various left-wing political activities (demonstrations, petitions, sit-ins and the like). Against this backdrop, the move away from technologies of power towards an ethics of the self seemed a farewell to left-wing politics, a move away from political engagement to "narcissism" (Lasch 1979). In retrospect we should rather say that Foucault was ahead of his time. His move towards an ethical reframing of his basic concerns enabled him to develop the tools that now allow us to analyze the ethics and politics of food consumption under present conditions.

The basic objective of this article is to look at some of the ethical and societal issues involved in food consumption in the genomics era from a Foucault-like perspective. First of all, in a preliminary section, I will give a brief overview of Foucault's work (section I). Subsequently, I will briefly sketch some recent highlights in the history of food consumption using some of the tools and concepts developed by Foucault in the 1970s (section II). Finally, however, I will turn to the present. And here, in order to address ethical and societal issues involved in food consumption in the genomics era, the tools and concepts developed by Foucault in the 1980s will be my starting-point (sections III and IV).

1. Foucault's complicated œuvre: some ergographical comments

At first glance, Michel Foucault's impressive philosophical output does not seem to constitute a coherent whole. First of all, his major publications, for the larger part devoted to historical analysis, are surrounded by satellite publications (notably interviews) in which Foucault explains their philosophical background as well as their relevance for the present. In 1994, a decade after his death, this diaspora of texts and fragments were brought together in a four volume publication entitled *Dits et Écrits*. This material once again raises the question (not to be answered here) why Foucault refrained from addressing these philosophical and political issues in his primary publications¹.

But there is another, even more obvious reason for saying that his work does not constitute a whole, namely the fact that at certain points Foucault rather dramatically decided to change his course. In the 1960s Foucault's work was epistemological in nature and devoted to the production of knowledge forms. This resulted in publications such as *Words and things* (1966). Around 1970, however, he more or less suddenly became interested in the analysis of power. This resulted in books like *Discipline and punish* (1975). Finally, around 1980, Foucault changed his course again. He became interested in ethics, in practices of freedom. He moved away from technologies of power towards the technologies of the self. Titles like *The care of the self* belong to this final period. In understanding these ruptures, the year 1968 is of course important. The political writings of the 1970s are Foucault's contribution to a collective research program of a whole generation of intellectuals, whereas his writings of the 1980s can be seen as an effort to critically reconsider the legacy of 1968. In *The will to knowledge* (1976) for example he already asked himself: this desire of ours to experience ourselves as being oppressed, where does it come from? He had wanted his research of the 1980s to be a genealogy of this experience of being oppressed, this experience of 1968 *par excellence*, this idea that there is a law or power regime from which we must (vehemently and even violently) liberate ourselves.

Yet, it is important to realize that these three dimensions of Foucault's life-work really belong together. They constitute the three axes of his philosophical analysis and his tendency to temporarily concentrate on one of them during a certain period of time does not undermine the fact that all three axes are part of a comprehensive foucauldian view on knowledge, power and the human subject. The will to knowledge, for example, is intimately connected with the will to power, as Nietzsche had already indicated, and eventually a

¹ I addressed this issue elsewhere: Zwart (1995).

micro-analysis of the technologies of power inevitably will lead into the realm of ethics. Foucault's reason for suddenly turning his attention to ethics did not imply a sudden disregard for politics. Rather, he suddenly deplored the fact that he had neglected this important ethical axis in his previous writings for too long. Moreover, Foucault explicitly encourages his readership to use his work pragmatically, as a "toolbox", and it is quite possible to combine tools for political analysis developed in the 1970s with the set of techniques he developed in order to address ethical issues later on. They can be seen as complimentary. In all three dimensions, moreover, Foucault wanted to challenge some rather basic assumptions. In the context of his analysis of power for example he challenged the identification of power with repression by stressing its productivity - its "positive" effects so to speak. In his ethical writings, moreover, he consistently challenged the idea that ethics must necessarily be articulated in terms of a universal law or interdiction.

Foucault has written on various subjects such as medicine, psychiatry, industrial architecture, education, sexuality, and so on. One of the things he did not write about was food. Neither was biotechnology an important marker in his writings. Why then should we want to use Foucault to further our understanding of these issues? Precisely because his œuvre can function as a toolbox. It contains effective tools for analyzing power effects and ethics also in areas he did not enter himself. For example, some of his ideas and insights concerning ethical discourse on sexuality can also be relevant for similar forms of research in the domain food ethics. Indeed, as I indicated elsewhere, it would be very interesting to write a *History of food* along these lines (Zwart 2000). In the following section I will look at the history of food consumption building on Foucault's work from the 1970s. In the third and final section, however, when it comes to addressing the present, I will follow Foucault in shift towards ethics.

2. Producers and consumers: some highlights

Before 1800 the great majority of human beings still lived in rural environments. Many of them were more or less directly involved in the process of food production. The distance between production and consumption of food was small. Human life displayed a more or less circular pattern, a cycle of production and consumption. The Dutch historian Jan Romein referred to it as the "common human pattern". He saw developments in modern Europe as historically unique, as a deviation from this universal pattern. Although the first symptoms of this deviation already occurred around 1500 it is clear that

around 1800 events began to accelerate dramatically. This change not only transformed social relationships, it also affected practices of knowledge production. Scientists such as Justus von Liebig (1803-1873) understood the potential of modern science for food production. Not only did scientists succeed in gaining a clearer understanding of important but complicated and even mysterious processes such as fermentation, they even succeeded in producing organic materials synthetically in their laboratories. In 1828 Friedrich Wöhler managed to produce urea "in vitro" while his friend and colleague Von Liebig became famous because of his association with the first commercially produced meat extract, the "Von Liebig Fleisch Extract". Food had entered the world of capitalism, food production had become a science-based industry.

These developments not only blurred the boundaries between fundamental and applied science, they had a considerable social import as well. They came "right in time", so to speak, and coincided with a number of social developments and transformations that made them more or less inevitable. In the 19th Century large industrial cities began to emerge in Europe. This made it both possible and necessary to produce food on a larger scale and in a science-based manner. "Possible" because abundant human resources (industrial workers) were now available to produce food industrially and breweries for example played a leading role in the industrialization of Europe. "Necessary" because the "common human pattern" could no longer keep up with the exponential (non-circular) pattern of modern population growth. The masses inhabiting the growing industrial areas were themselves not directly involved in farming or other traditional activities associated with food production. Therefore, food had to change into a "mass" product, a relatively cheap and safe commodity in order to feed the urban masses.

In his novel *The Jungle* the left-wing novelist Upton Sinclair (1905) gave a very lively and moving description of this process, albeit in an American setting. He describes how, early every morning, a living river of meat arrived at the Chicago slaughterhouses in order to be transformed into canned meat by the end of the day. The stream of animals was continuous: some eight or ten million live creatures turned into food every year. Visitors became both nauseated and impressed by the "wonderful" efficiency with which living animals were actually reduced to raw materials for the food industry. Pork-making had suddenly assumed the form of "applied mathematics". Yet, as Sinclair tells his readers, even the most matter-of-fact persons could not help thinking of these hogs: so innocent, so very trustingly as they came in; and so very human in their protests - so perfectly within their rights! It is clear that in Sinclair's perspective, the fate of these animals mirrored the fate of the human beings that

were involved in this process. They too were submitted to rigorous forms of "applied mathematics", they too were exposed to discipline and power, to a highly efficient and sophisticated uses of resources (human and otherwise), of space, time and human energy. And yet, it was only in this manner, by turning meat-production into a more or less mechanical process, that food could become available for the masses. Until then meat had been a scarce resource, a luxury for bourgeois city dwellers. Now even the workers in urban environments could afford to buy their piece of meat - relatively nutritious and safe. In other words, canned meat was a symbol. It symbolized a certain form of meat production as well as a certain type of society. It demonstrated the productivity of modern industrial power. It was a product with a social image or identity, moreover. By eating canned meat, consumers indicated that they belonged to a particular class: the urban masses, whose food consumption differed significantly from the diets and consumptions patterns of other classes, such as farmers or the bourgeoisie.

Another interesting product that emerged in this context was margarine. This too was not only a science-based product, but also a class-product, developed for a particular target group: the urban masses for whom "real" butter was too expensive or practically unattainable. Not only in terms of *consumption* was it food for workers. On the contrary, the association with a particular class was also evident on the level of production. Margarine was a typical product of the modern science-based industries where a new "variety" of human beings (industrial factory workers) were actually employed, trained and disciplined as human resources. Moreover, margarine as a food product did not emerge spontaneously. On the contrary, top-down governmental initiatives played a decisive role. Governments in the 19th century clearly began to recognize the importance of cheap and safe food products for the industrial masses. In France and the Netherlands they actively encouraged the development of margarine (Zwart 2003).

It is clear that, in order to analyze this dramatic episode in the history of human food, the tools developed by Foucault in the 1970s can be quite useful. On the one hand, building on *Discipline and punish*, it is quite possible to describe the migration of human resources from rural to urban environments in terms of discipline: the constitution of a well-disciplined work-force, where breweries, meat factories and similar food production sites served as training settings. The emphasis would then be on production, not only of products such as margarine and canned meat, but also of a particular type of human being: the industrial factory worker. Building on *The will to knowledge*, however, the emphasis would shift from food production to food consumption. In the 19th

century, governmental bodies throughout Europe had discovered the importance of the health condition of their populations, especially of the working classes. This led to the emergence of "bio-power" or "bio-politics", as Foucault termed it, a series of research projects and policy initiatives in areas such as housing, hygiene and nutrition, directed towards improving the physical condition of a nation's human resources, notably its urban masses. Scientific research activities investigated the lifestyle and nutritional habits of the working classes. It became clear that the power and wealth of a nation for a considerable part depended upon the bio-quality of the human resources that could be mobilized for industrial and other (notably military) purposes.

Up to a certain point it is still possible to analyze issues involved in food production and consumption along these lines. When in the first contribution to this Journal for example biotechnology is analyzed in terms of "bio-power systems" and techno-political "ensembles" (Ruivenkamp 2005) the basic affinity with the kind of perspective Foucault developed in the 1970s is evident. It is clear, of course, that food is being produced by extremely large and powerful companies, involving large numbers of employees world-wide, producing food for urban target groups of enormous sizes, shaping and influencing their way of life. In other words, we can still think about food in terms of power and control. Or to put it otherwise, we can still think about human subjectivity in the food domain as an *effect* of technologies and arrangements of power.

In this respect, the life and work of the psychologist John Broadus Watson (1878-1958) is highly interesting. He became famous as one of the founding fathers of behaviorism and designed an impressive series of experiments with the explicit aim of gaining control (as completely as possible) over the behavior of research animals (notably white rats). By means of behavioral engineering (chronic surveillance, systematic manipulation of conditions, etc.) these animals could learn to adapt to the desires and expectations of the experimentalist in charge. Later in life, leaving the laboratory and entering the "real world", he became involved in the psychology of advertising. He was convinced that it would be possible to extrapolate his insights derived from laboratory rat psychology to the behavior of human beings under real-life conditions. Indeed, he boasted that the behavior of individuals in supermarkets could be just as effectively modified as the behavior of rats in mazes or problem boxes. According to his biographer Kerry Buckley, Watson actually "discovered that the consumer is to the ... advertising agencies, what the green frog is to the physiologist" (Buckley 1989, p. 137). An analysis along these lines would encourage us to look at the supermarket as a kind of *panopticon* where

human behavior is constantly being monitored and modified.

Around 1980 however, as was already indicated above, Foucault discovered that the power dimension is only one of the three axes of critical analysis, namely: knowledge, power and ethics. If we focus on the power dimension too exclusively, power inevitably becomes a repressive force. By including the dimensions of knowledge and ethics in our reflections, however, attention is likely to shift from the "repressive" aspects of power to its productivity. Although power is indisputably an important dimension of the food domain, and tools for analyzing power effects must therefore be part of every tool box for critical analysis, Foucault realized that we need to develop new and innovative tools for analyzing the ethical dimension as well. And taking ethics seriously inevitably implies that human subjectivity is no longer seen merely as an *effect* of power.

3. The resurgence of food ethics

Whereas Foucault in the 1970s was primarily interested in the production of subjectivity through technologies of power, that is: in the ways in which individuals were *being transformed* into moral subjects by means of power regimes, in the 1980 he suddenly became interested in the ways in which individuals manage to transform *themselves* into moral subject, using and developing technologies of the self. Or, to translate this basic orientation into the idiom of food discourse: it would be rather one-sided to envision the supermarket (as the "chronotope" of contemporary food consumption) merely in terms of behavioral engineering. Although this type of engineering (through advertising for example) certainly takes place, this is only one dimension. Other important dimensions, to be taken into account, are knowledge (or information) and subjectivity - where subjectivity can no longer be analyzed only as an effect or artifact of power. In other words, besides being a kind of real-life laboratory where technologies of control can be fine-tuned and put to the test, supermarkets can also be interpreted as places where practices of freedom are allowed to emerge, as localities that provide individuals with the space and time to affirm their identity, to develop and shape their personal mode of life. By buying, or by refusing to buy, food products that have assumed a symbolic meaning (such as GM food, biological food, slow food, fast food, food products produced in totalitarian and food products produced in democratic environments, and the like) individuals are invited to indicate who they are and where they stand in the context of local or global normative issues. In Foucault's terms: they are invited to constitute *themselves* as moral subjects.

In comparison with the plethora of publications devoted in recent years to food ethics, it is astonishing to notice how chronically this issue had been neglected by philosophers in the past. Indeed, Foucault is not the only philosopher who has hardly written about food. Somehow, for many centuries, mainstream European ethics had forgotten that food consumption constitutes an important aspect of our moral life. Food consumption had been de-listed from the ethical agenda. One of the reasons Immanuel Kant (for example) had for his refusal to look at food from an ethical point of view was that food consumption did not fit the logic of the categorical imperative. It is a personal matter so to speak. I cannot decide in the name of all reasonable beings what I should eat. Therefore, Kant preferred to look at diets and consumption patterns as "techniques" we have at our disposal for improving or safeguarding our health. He failed to discern the ethical dimension of food.

As Peter Singer (2005) and others have noticed, this has now clearly changed. It has become more or less impossible to deny the ethical dimension of food. Decisions to prefer meat to vegetarian diets, or "biological" food products to food that is produced with the help of pesticides and synthetic fertilizers, or slow to fast food - decisions of this type are ethical in nature. There are other, "symbolical" reasons involved in making such decisions besides considerations that merely have to do with budget and health. By buying or refusing to buy certain food products, we indicate what kind of society we would like to support. We indicate our moral identity. We take sides. For example, the decision to buy canned meat can be interpreted as an endorsement of the view that animals are the raw material of the food production process, whereas a preference for consuming recognizable parts of animals (in a slow food context) could be interpreted as a willingness to see animals as animals. In other words, consumer choices can be interpreted as expressions of ontological positions. And this is not merely a "personal" affair. On the contrary, food is produced by a vast global industry that tends to be sensitive and responsive to consumers' choices.

And this is where the Foucault of the 1980s becomes relevant. His basic question, as he finally entered the realm of ethics, was: why should we inescapably think about ethics in terms of a categorical imperative? Why should ethics by definition consist of formulating a universal law? His main reason for developing a serious interest in Greek and Roman ethics was that here we see an ethic at work that does not strive to produce a categorical imperative, a binding rule for all. Rather, this type of ethics sets out to develop a series of technologies of the self, technologies that will allow individuals to transform themselves into moral subjects, to distinguish themselves from

others (from the majority of mankind) and to develop a moral lifestyle of their own. From a Foucauldian perspective it is quite clear that even Kantian ethics can be interpreted in this manner: as an ethics that allowed a particular lifestyle to emerge at a certain (geographical) place at a certain (historical) time - not as a universal rule for everybody. Even Kant's narrow view of food consumption as an item having to do primarily with health, could then be seen as typical for this particular form of life.

If ethics is understood along these lines, issues involved in food intake are as interesting from an ethical point of view as (for example) questions having to do with sex or governing a society. Around 1980, Foucault noticed that ethics was entering a new era, that the conditions for human life were about to experience a dramatic change, and that ethics was moving away from the logic of the categorical imperative to a completely different logic, that of practices and technologies of the self. What kind of life do I want to lead? What kind of food consumption patterns would fit into that life? It goes without saying that, in order to address this type of question convincingly, we cannot merely pay attention to the ethical dimension. We have to involve the knowledge axis and the power axis as well. The emergence of a fast food culture in Europe for example is not a spontaneous development. Rather it is a large-scale science-based economical development, boosted by powerful companies. Technologies of power are mobilized to produce behavioral modifications in the public arena. Yet, these developments cannot be analyzed in terms of power effects alone and the Foucault of the 1980s basically invites us to reframe our questions, to ask a *different kind* of question, namely: how do I position myself vis-à-vis these developments and changes? Moreover, the Foucault of the 1980s does not present us with a gloomy and fatalistic picture of an omnipresent hyper-productive power regime. On the contrary, he now emphasizes that in the folds and margins of dominant food regimes, new sub-cultures may and will emerge, through technologies of the self.

4. Technologies of the self in the genomics era

It is interesting to notice that Foucault's shift in emphasis from politics to ethics coincided more or less with an important development in the life sciences: the shift from "classical" biotechnology to genomics. Classical biotechnology emerged in the 1970s. It was directed towards modification and control. Life scientists involved were "bio-engineers", perceiving organisms as raw material that could be improved and adapted to our needs by certain genetic interventions. In other words, biotechnology could be seen as an important

chapter in the history of bio-power. Top-down concerns about the physical condition and well-being of populations, now and in the future, were behind these science-based programs. Moreover, unlike genomics, the focus of biotechnology was on (transferring or deleting) single genes. It was a mono-genetic technology. Biotechnology incited a host of public controversy (Gaskell & Bauer 2001), but this controversy mainly focused on issues involved in food production. How is food produced? With or without the technologies of genetic modification? To the benefit or at the expense of local farmers and other vulnerable stakeholders? This kind of questioning was typical for the biotechnology era.

In the 1980s, a new concept emerged for the first time, the concept of genomics. And although genomics is still basically a laboratory phenomenon, it is expected by many to have a considerable societal impact. Genomics *as such* has nothing to do with genetic modification. Rather than focussing on single genes it takes a whole-genome perspective. Its basic objective is not to modify organisms, but to visualize and understand complexity. Genomics is basically about knowledge and information. It generates information about the ways in which large numbers of genetic and environmental factors interact? How do our bodies, on the genome level, respond to certain food ingredients? How will certain ingredients affect our health? Rather than producing new sets of products, genomics will basically produce new forms of information. This will have consequences of course in terms of societal impact as well. It will force us to reframe the debate. In the genomics era, the focus of the debate is likely to shift from production to consumption, from the role of GM in food production to questions of life style. Questions such as "Is it acceptable to transfer or delete single genes in an organism?" will be replaced by questions such as "To what extent will individuals use genomics knowledge in order to adapt their lifestyle and diet to their genetic profile?"

As was indicated above, it is still possible to analyse this development in terms of Foucauldian technologies of power. In the 19th century, that is: during the heydays of bio-power, national governments became increasingly interested in the physical conditions of the general population and in science-based methods to improve it. The focus was on hygienic living conditions and the availability of healthy but inexpensive food products (meat, bread, margarine, etc.) for the working classes in the urban centres. There was a growing awareness that the economic and military power of a nation was determined by the general physical condition of its population. Subsequently, during the first decades of the 20th Century, governmental organizations displayed a growing top-down concern for the psychic well-being of their populations. Intelligence

tests and other tools for large-scale testing programs were developed. Now, in the genomics era, it is very likely that governmental bodies will become increasingly interested in the genetic condition of the population. In the near future, contemporary societies will be facing some major challenges. For example, we will be confronted with an ageing population. More people will have to stay healthy and active for a longer period of time, notwithstanding the ever-increasing pace of cultural and technological innovation. Shall we (will they) be able to cope with that?

The Foucault of the 1980s, however, invites us to adopt a somewhat different, bottom-up perspective on these issues. The question now basically is: how will individuals constitute *themselves* as moral subjects under these conditions? How will they interact with forms of knowledge production and power ensembles emerging in the genomics era? How will they use new forms of information to develop a personal lifestyle?

This means that we are invited to look at genomics from a "care of the self"-perspective. In his analysis of ancient ethics, Foucault (1984) described how individuals used information provided by ancient Greek medicine as input in the process of shaping a moral self. In the present and the near future, the question will be: how will individuals respond to a new form of knowledge production called genomics? The focus of biotechnology was on the bio-power level. Its intention was to produce better food for "all", or at least for vast target groups. Genomics information however will be tailored towards a completely different set of questions, emerging on a much smaller scale: what kind of life do I want to live? Genomics will provide "personalised" information on the possible health effects of ingredients and diets, of environmental circumstances and lifestyle habits, on the basis of an individual's genetic profile (Zwart 2005). The current campaign against smoking for example still follows the logic of bio-politics. After decades of stimulating, spreading and reinforcing smoking habits through mass media (movies and television), there is now a growing top-down concern over the well-being of the population (notably the younger generation). Genomics information, however, will tell us more exactly why and to what extent smoking is bad for us personally. The same could be done for alcohol or stress. A well-informed choice, for or against smoking, will be a moral choice. It will be part of the answer to the basic question what kind of person we want to be. Do we want to be someone who, through consumer choices, indicates that physical condition, now and in the future, is a matter of serious concern? Or do we rather opt for a more cynical lifestyle? The societal debate over genomics, framed in this way, will migrate to different forums, away from the traditional forums of public debate

(formulating general regulations) towards genres of imagination such as films, novels and plays (directed towards the development of personal identities).

It is along these lines that the obesity issue will be (and will have to be) addressed in the era of genomics. A biopower perspective would focus on growing top-down concerns with the physical condition of the population (notably the lower classes) in the context of the obesitas "epidemic". A top-down campaign directed at improving the bio-quality of human resources, however, can hardly be expected to succeed. Rather, it would be more interesting to turn attention to the ways in which obesity is being represented in mass media. Global audiences are exposed to two types of characters: extremely slim people (in perfect physical shape and extremely conscious of their bodily health), in combination with their obese (and morally "recalcitrant") counterparts. The middle-weights, so to speak, seem underrepresented. In short, audiences are faced with a difficult dilemma involving two radical options: either extreme compliance with the ideal of slimness, or provocative "resistance" in the form of impudent fatness. In other words, when it comes to answering the question how to constitute ourselves as moral subjects in the domain of food intake, we cannot rely on the mass media for "models". We will rather have to develop a lifestyle of our own, in accordance with a personal "measure". In the genomics era, individualized information on dispositions and risks involved in obesity will be built into these choices. The representation of obesity in the media should therefore not be interpreted in terms of technologies of manipulation (the bio-power perspective) but rather as invitations to distance ourselves from stereotypical top-down formats in order to develop a lifestyle and a body-image of our own. In other words, the focus will be, not on issues such as the average body weight or certain sections of the population, but rather on the willingness and ability of individuals to manage and interpret complex (and often contradictory) forms of information.

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