

World Nutrition Volume 4, Number 5, May 2013

Journal of the World Public Health Nutrition Association Published monthly at www.wphna.org

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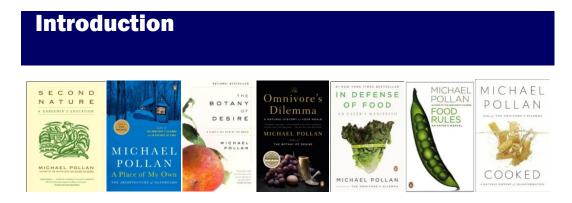
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Michael Pollan **Forward to nature**





Simon Schama, Todd Dawson, Alice Waters, Christopher Gardner, Boyd Swinburn, Francine Lima, Isabela Sattamini – and Michael Pollan, plus Farmer Jane Email: wn.theeditor@gmail.com



Michael Pollan's seven books: Second Nature (1991), A Place of my Own (1997), The Botany of Desire (2001), The Omnivore's Dilemma (2006), In Defense of Food (2008), Food Rules (2010), and now Cooked (April 2013)

Editor's note

This is the second part of our appraisal of the work, influence and importance of the US journalist, naturalist and science writer Michael Pollan, whose more recent books and contributions have focused on nature, agriculture, food, nourishment, health, well-being and the good life well led, and whose new book *Cooked* is already a best-seller in the US.

Yes, Michael Pollan this month again, for a second time. His importance, at first centred in the USA, is not just in himself and his own writing and testimony. It is mostly in what and who he stands for. His work points all those concerned with public health and with nutrition in new and rich directions, and also is a reminder of the knowledge and wisdom that has already been accumulated.

Above you see him being given a genial hard-hitting time by US television host Stephen Colbert, on publication of the illustrated edition of *Food Rules* – one of the illustrations is shown on the studio wall. The drink in front of Stephen Colbert is a glass of a brew made at home by Michael Pollan and his son Isaac.

Michael Pollan points out that he is in an ancient tradition, as a writer on the relationships of earth, plants, animals and humans. In the US this is reflected in the beliefs and philosophies of writers like Ralph Waldo Emerson and Henry David Thoreau, and indeed of the policies and practices US presidents such as Thomas Jefferson and Theodore Roosevelt.

In that land it begins before the invention of the 'United States', in the ways in which the original Americans lived. The sayings and writings of many native leaders have various unifying themes, one of which is that what is taken out of the earth must be put back. In the late 1960s a group of Hopi representatives wrote to the US president, then Richard Nixon, protesting against coal strip mines on their land. They wrote 'This must not be allowed to continue for if it does, Mother Nature will react in such a way that almost all men will suffer the end of life as they now know it. The Great Spirit said not to take from the Earth – not to destroy living things. The Great Spirit said that man was to live in harmony, and to maintain a good clean land for all children to come' (1).

The circle of being

Between 1991 and 2001 in his 'East Coast period', Michael Pollan published three books combining 'big picture' (wide scope) and 'hands on' (personal engagement), which are attempts to reconcile respect for nature with living in the material world. He then moved to California and altered course. Between 2006 and 2013 he has published four books whose linked topics, while being suffused with his accumulated and experienced understanding of nature's great circle of being (3), are food systems, dietary patterns, food, eating – and yes nutrition, in its broad sense of nourishment. As a result he is now also an advocate, engaged with public policy.

Part of the charm of his books is that he positions himself as a pilgrim, an earnest traveller seeking enlightenment. Part of their power is that all their observations and conclusions remain rooted in natural philosophy. A striking example is when in *The Omnivore's Dilemma* he finds himself wrestling with the issue of animal rights, on the one hand rejecting industrial animal production, on the other hand accepting that agriculture is a system in which the life and death of animals is necessary. The book begins with him and his family devouring burgers while driving. It ends with him shooting a wild pig, the centrepiece of a feast of personally hunted and gathered food for his family and companions in this adventure.

Diet for a Small Planet

He is in a modern tradition. This begins with the work of Frances Moore Lappé who, as a 26 year-old dropout from the University of California at Berkeley, where Michael Pollan now teaches, wrote *Diet for a Small Planet*, published in 1971. Other 20th century writers like Upton Sinclair (*The Jungle*) and Rachel Carson (*Silent Spring*) came before her, but she was the first to discern the whole modern industrial food system and its impact on dietary patterns and also on society and the environment.

She is still active – very much so. Writing in late 2011of what she sees as a new 'food movement', she says (4): 'The global food movement challenges a failing frame: one that defines successful agriculture and the solution to hunger as better technologies increasing yields of specific crops. This is typically called "industrial agriculture," but a better description might be "productivist," because it fixates on production, or "reductivist," because it narrows our focus to a single element. Its near obsession with the yield of a monoculture is anti-ecological. It pollutes, diminishes and disrupts nature; it misses ecology's first lesson: relationships. Productivism isolates agriculture from its relational context – from its culture...Agriculture can serve life only if it is

regarded as a culture of healthy relationships, in the field – among soil organisms, insects, animals, plants, water, sun – and in the human communities it supports'.

The new food movements

Responding to her, Michael Pollan says (5): 'One of the most interesting social movements to emerge in the last few years is the "food movement," or perhaps I should say "movements," since it is unified as yet by little more than the recognition that industrial food production is in need of reform because its social/ environmental/ public health/animal welfare/gastronomic costs are too high.

'As that list suggests, the critics are coming at the issue from a great many different directions. Whereas many social movements tend to splinter as time goes on, breaking into various factions representing divergent concerns or tactics, the food movement starts out splintered.

'Among the many threads of advocacy that can be lumped together under that rubric we can include school lunch reform; the campaign for animal rights and welfare; the campaign against genetically modified crops; the rise of organic and locally produced food; efforts to combat obesity and type 2 diabetes; "food sovereignty" (the principle that nations should be allowed to decide their own agricultural policies rather than submit to free trade regimes); farm bill reform; food safety regulation; farmland preservation; student organizing around food issues on campus; efforts to promote urban agriculture and ensure that communities have access to healthy food; initiatives to create gardens and cooking classes in schools; farm worker rights; nutrition labeling; feedlot pollution; and the various efforts to regulate food ingredients and marketing, especially to kids...

But there are indications that these various voices may be coming together in something that looks more and more like a coherent movement. Many in the animal welfare movement... have come to see that a smaller-scale, more humane animal agriculture is a goal worth fighting for, and surely more attainable than the abolition of meat eating. Stung by charges of elitism, activists for sustainable farming are starting to take seriously the problem of hunger and poverty...

'For some in the movement, the more urgent problem is environmental: the food system consumes more fossil fuel energy than we can count on in the future (about a fifth of the total American use of such energy) and emits more greenhouse gas than we can afford to emit, particularly since agriculture is the one human system that *should* be able to substantially rely on photosynthesis: solar energy. It will be difficult if not impossible to address the issue of climate change without reforming the food system...In the last few years, several of the major environmental groups have come to appreciate that a diversified, sustainable agriculture – which can sequester large amounts of carbon in the soil – holds the potential to mitigate and actually to help solve environmental problems, including climate change'.

He concludes by showing where public health nutritionists fit into this big picture. 'But perhaps the food movement's strongest claim on public attention today is the fact that the American diet of highly processed food laced with added fats and sugars is responsible for the epidemic of chronic diseases that threatens to bankrupt the health care system. The Centers for Disease Control estimate that fully threequarters of US health care spending goes to treat chronic diseases, most of which are preventable and linked to diet: heart disease, stroke, type 2 diabetes, and at least a third of all cancers. The health care crisis probably cannot be addressed without addressing the catastrophe of the American diet, and the fact that diet is the direct (even if unintended) result of the way that our agriculture and food industries have been organized'.

In 2010 Michael was featured as one of the 100 most influential people in the world of *Time* magazine, positioned as one of the 'Thinkers' of the year, along with Amartya Sen. Lee Kwan Yew, Elon Musk, Steve Jobs, Paul Volcker and others. In 2011 he was with Marion Nestle, voted among the 140 most effective twitterers. These are all reasons for attention to his testimony, and where he is coming from.

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Box 1 **Dissenting voices**



'Appraisal' is not the same as 'praise', and not everybody thinks that Michael Pollan is wonderful. Two distinguished professors of nutrition, Benjamin Caballero (left, above) and Michael Gibney (centre above), do not. Nor does Adam Merberg (right above) who writes a blog devoted to criticism of Pollan.

In a review of In Defense of Food in the British Medical Journal in April 2008 Benjamin Caballero of the Johns Hopkins Bloomberg School of Public Health, editor-in-chief of the 10volume Encyclopedia of Food Sciences and Nutrition, whose distinctions also include membership of the US Institute of Medicine's Food and Nutrition Board, said that Michael Pollan is nostalgic for a past that never existed. Here is part of what he wrote:

'Pollan believes that as far as food is concerned we have strayed way off course and that we should return to a path of pure and natural food. He recommends 'not to eat anything that your great-grandmother would not approve of', But this is meaningless advice. The challenge for nutrition science, just as for nuclear physics, genetics, and science in general, is not to bury our discoveries and dream about a simpler past but to apply new knowledge in a positive way to improve our lives. Pollan believes the only way we can resolve food related problems such as obesity is to ignore discovery and reinstate an idyllic food paradise that never existed.

'He may be lucky enough to have a great-grandmother who is alive and well enough to go with him to the supermarket, but the truth is that our great-grandmothers had 15 years less life expectancy than we do now, In spite of the contradictory nature of discovery in progress, advances in the science of nutrition have greatly enhanced our ability to provide a better, stable food supply to the population. Pollan believes the opposite: that the lack of change in a pattern of diet is proof of its quality. This is naive at best. Traditional dietary practices have plenty of examples that are detrimental to health. Regretfully, grandma's dietary advice can be wrong'.

Michael Gibney of University College Dublin, a former president of the UK Nutrition Society, took a similar view and denied that nutrition scientists are not interested in food. Here is part of what he wrote on his website in April 2008 (2)

'The putative obsession with food and health of modern consumers that Pollan puts forward arises from the dogmatism and doctrine, which he calls 'nutritionism'. He argues that nutrition has reduced the food and health issue to nutrients. In his view, nutritionists see foods solely as purveyors of nutrients and summarises their view thus: 'Foods are essentially the sum of their nutrient parts'.

'Eloquent, but utter baloney! This needs to be rebutted along several lines. In 1996, I chaired a joint WHO-FAO committee that issued a report entitled *Preparation and Use of Food-Based Dietary Guidelines.* The notion behind this was that many developing countries did not have detailed data on the nutrient content of their food supply, that they didn't have nutritional surveys and that we should encourage the development of healthy eating advice in terms that consumers can understand. Indeed, statistical techniques such as cluster analysis are widely used to study food intake patterns and moreover, there are many examples of systems that score food choice for their nutritional quality. To write a book based on the impression that nutritionists see foods solely in terms of nutrients is simply daft'.



A website dedicating to criticizing Michael Pollan is written by Adam Merberg, a student in mathematics at the University of California (Berkeley) where Pollan is professor of journalism, and a founder of the Berkeley Students Food Collective (see picture above) 'Dedicated to providing fresh, local, healthy, environmentally sustainable and ethically produced food at affordable prices to the Berkeley campus and greater community':

[•]Michael Pollan remarks in the introduction of *In Defense of Food* that had he written the book forty years earlier, it would have been received as 'the manifesto of a crackpot'. In light of the superficiality of the book's merits and its loose relationship to the facts, that wouldn't have been a particularly unfair appraisal... Thanks to its engaging style and appealing commonsense message, *In Defense of Food* has become required reading for thousands of college students, and its author now stands at the helm of a respected social movement. With the alarming rise in diet-related disease, the time was ripe for someone to fill that leading role. It's just too bad that it was somebody who mostly gives us the same kind of simplistic solutions and sloppy reasoning that helped to create the problem'.

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As last month, the appraisals below are in the chronological order of when the contributor first encountered Michael Pollan: Simon Schama, Todd Dawson, Alice Waters, Christopher Gardner, Boyd Swinburn, and two younger people committed to public health and to nutrition, Francine Lima and our very own Isabela Sattamini. We also add an illuminating post on Marion Nestle's own website from 'Farmer Jane'. Finally, Michael Pollan himself selects some outstanding current books. The appraisers mostly respond to ten suggested enquiries. These are:

- 1 When did I come across Michael Pollan?
- 2 What impressed me at that time?
- 3 Rate his work and impact
- 4 Quote one of his sayings that stays with me
- 5 Has his work changed my work and if so, how?
- 6 Give an example of where he has made a difference
- 7 Does his work have relevance outside the USA?
- 8 In what ways if any do I think he is mistaken?
- 9 Which of his publications do I most recommend?
- 10 Any other thoughts or comments

Simon Schama



Simon Schama is a British historian. This piece, written from London, is adapted from a 2010 interview with Michael Pollan, no doubt prompted by Michael just having become one of the top 100 people in *Time* magazine's world (see above, and Alice Waters, below). Simon Schama is professor of history and art history at Columbia University in New York City. He wrote and presented the 15-part BBCtv series *A History of Britain*. Other works include *Landscape and Memory*, on the relationship between physical environment and folk memory, separating the components of landscape as wood, water and rock, a reason to be interested in Michael Pollan's work. He has won many awards for his writing and broadcasting. He is an art and cultural critic for *The New Yorker*, and a writer of profiles of people he chooses to meet and get to know, for the UK *Financial Times*. Details of the lunch as a meal are omitted.

Michael and I met for lunch. We had met before, though neither of us can remember exactly where, some time shortly after he had published his first book, *Second Nature*, in 1991. This features at its heart an epic battle with a woodchuck that was treating his garden as his personal canteen. The struggle for supremacy between resolute gardener and resourceful rodent builds to a titanic climax with the Man of

the Soil emptying cans of gasoline down the varmint's burrow and setting light to it like some deranged garden Nazi bent on a backyard *Götterdämmerung*. Pollan's essay was wonderfully out of keeping with the solemnities of American nature writing, and so deeply Jewish in its mischievous self-regard that it was if Henry David Thoreau had had an encounter with Woody Allen and never been quite the same since.

His day job is Knight Professor of Journalism at UC Berkeley, where he's been since 2003. After Bennington College in Vermont, he did a masters degree in English literature, specialising in American nature writing and Thoreau, at Columbia University. For a while he was a TV critic but then 'I realised people who read didn't watch TV and people who watched TV didn't read.' So in 1983 he went to work with Lewis Lapham's *Harper's Magazine,* a publication famous for commentaries of high moral purpose expressed in tough, elegant writing.

For all the charm of his writing, he is in deadly earnest about what he sees as the imprisonment of American food-ways in the corporate imperatives of agribusiness, above all in the industrial mega-production of corn that has all but obliterated the possibility of a truly omnivorous diet. If we are what we eat; then most Americans are corny even when they think they are eating meat. What they are actually eating – in their beef, their poultry, even their fish (in addition to scrapings of other animals) – are livestock as processing tubes for a corn surplus. The result has been a victory of profit over nature.

It is just because he is so deeply and lovingly invested in the culture of his country that he mourns the loss, not just of its alimentary health but the sense of domestic community destroyed by the supremacy of fast food, of cooking that has been surrendered to the dictates of convenience industries. Nineteen per cent of all American meals are now eaten in a car, which is why the nugget that can be consumed with one hand was the dream product for the corporate food marketeers. Of the 38 separate ingredients that constitute the McNugget, 13 are corn-based.

One part of him is in awe at what agribusiness has achieved: the delivery of low-cost food on an unprecedented scale. But the better part of him is appalled. 'What's happened is Walmartism: the reverse of Fordism,' he says. 'Ford raised the pay of his assembly line workers so they would buy his cars. Walmart pays low wages, knowing workers can always get bad, cheap food.' The result is a burger and jumbo-sized cola addicted population. No one is better at giving the devil its due, conjuring the unmistakable, almost narcotically addictive 'fry-fragrance' to which junk food junkies helplessly gravitate. It is a kind of ersatz 'home': some imagined smell of childish security in that oily-crunchy, burgery squishy provision – as if fast food momma was one gigantic American tit on which the infantilised masses of America placidly suck.

His winning way with food polemics is all his own, coloured by an easy-going humane generosity. The reader never feels hectored into gastric virtue. Guilt is not his trip. This is a writer who wants to restore the culture of true eating but who can

own up to a shot of pure pleasure at a home-cooked plate of fries Anyone who has read his coda to *The Omnivore's Dilemma*, called 'A Perfect Meal', knows he is not just a historian and prophet of food but a hell of a cook too. So I ask him about the paradox of our time in which the obsessions of food – celebrity chefs, food columns in every paper and magazine, the marketing of gourmet kitchens – has somehow coincided with people cooking less not more. Television cooking we both think has became a kind of manic game show, in which star turns of charismatic rage and an emphasis on feverish speed has made it harder, not easier, for family cooks to transfer what they see to their own kitchens.

He sighs. 'We have been drilled to believe that only in the workplace do Americans produce something. But when we cook we are producers too. It's sad that we are supposed to be just consumers.' I said to him: 'There's a big tragic social theory lurking in your work, isn't there?' I said to him. 'We're stuck with a culture that militates against your dream of restoring a sense of community through cooking and eating together at home. 'TV dinners and movie popcorn are the opposite of real eating; our restaurant fetish lets someone else do the cooking; and the gym hours spent to make us feel good give excuses not to make dinner. So what the hell can we do?' 'Oh,' he said, with an expansive smile, 'We can tell stories.'

Adapted and digested from a feature in The Financial Times, 11 June 2010

Todd Dawson



Todd Dawson wrote to us from the University of California (Berkeley) where he is professor in the colleges of letters and sciences and natural resources, and a colleague there of Michael Pollan. His work examines the relationships between plants and the diverse environments they inhabit, and he is broadly interested in the biology of animals and humans too. His work includes development and application of stable isotope methods in a wide range of biological systems, including in studies of the human diet. Berkeley is located across the bay from the city of San Francisco, as shown in the map above (left). In the picture above Todd Dawson (on the left) is hiking through one of the University of California's natural reserves, the Blue Oak Ranch Reserve (also shown on the map above), that contains one of the state's most important and widespread ecosystems, the oak-savanna.

When did I come across Michael Pollan?

I first became aware of Michael when I read his book *The Botany of Desire* (2001). As a botanist I was captivated by the way Michael told us the stories behind some very important plants and their impact on human desire for sweetness, beauty, intoxication and control; the book has a wonderful balance of facts and wellcrafted prose. I had so much fun reading that book and became an instant fan of Michael's and his style of storytelling. Some years later, when Michael joined the faculty here at UC Berkeley and he had launched into his book project that lead to the publication of *The Omnivore's Dilemma*, we met and I participated in his class and in providing scientific input and some stable isotope analyses of different foods for the class project and eventually for some of the background for the book itself. This was one the most rewarding and fun experiences I have had in my 24 years as a scientist and professor.

What impressed me at that time?

From our very first meeting I have always been impressed with Michael's scholarship, attention to detail in his stories that really makes the difference between a great story and just a good one, and his flat-out zest to learn, debate, and discuss matters in ways that lead us towards improving our station in life. I very much admire his investigative approach to writing about any topic as well; it leads naturally to 'the big picture' on any issue he immerses himself in and he does this in an honest and fascinating way. When he invited me to get involved in the journey to look harder at the issue of how pervasive corn had become in the diet of Americans, it showed me just how deeply he wanted to understand this issue from every facet. Michael really wants his life's work and his writing to matter and it always does.

Rate his work and impact

As someone who writes about topics that we all should care about and know about, Michael's impact is unmatched. He provides the back-story and then the full story for the topics he writes about, and also draws the map to where it all leads or should lead. This why his writing is transformative and often profound, in so many ways.

Quote one of his sayings that stays with me

When I got involved in his class project that lead to the publication of *The Omnivore's Dilemma*, and was reading some draft text he had sent to me that highlighted just how much corn has ended up in North American's diet, I made the comment based on the carbon isotope analyses I had just done for Michael and his class that we [North Americans] looked like corn chips with legs. With his talent as a writer and word-smith he found just the right and pithy combination of words to end that

section of the book, with one of his quotes that will always stay with me – 'So that's us: processed corn, walking'. Those six words capture so much of what Michael wanted his readers to take away from that book.

Give an example of where he has made a difference

For me I think it is safe to say that Michael has raised consciousness about the profound importance of fresh food, health, cooking, living in balance with our resources and our community and also the Earth more than anyone I know or know about.

Has his work changed my thinking and if so, how?

For people who think, think carefully and also care, care about how to make a difference, an improvement, a step forward Michael's work makes them act. Take actions that they know are important but may for some reason had not before Michael's words gave them license.

Does his work have relevance outside the USA?

Of course it does. As a master author of articles for influential journals as well as an author, the topics Michael tackles sit at the heart of makes him well know and well respected across the globe. For example, we all must eat. We all should care about where our foods come from and how they impact our lives and the lives of others. Michael has crafted a set of stories that put real focus on these issues and in very innovative ways. Through his writing he has shown how food and food systems sit at the very core of the globalisation of goods and services and the long-term health of society.

Which of his publications do I most recommend?

The food trilogy (I like to call them), *The Omnivore's Dilemma, In Defense of Food* and *Food Rules* are the most provocative, informative and interesting set of books about one of the most important set of topics of our time. As the human population continues to grown, how we feed them and feed them well will be at the center of every discussion and decision governments make. Michael has opened up a lot of people's eyes about food issues in these books. Now I can't wait to read *Cooked*!

Any other thoughts or comments

Michael has educated more people in more places about food and modern food systems (the good and the bad) like no other. He is an exceptional craftsman who both wrote the manual and then showed his reader how to use the compass to find a better way.

Alice Waters



The founder and co-owner of the Berkeley, California restaurant Chez Panisse, often rated as one of the world's best, Alice Waters is a chef, writer, campaigner for good food, good health and social justice, and a champion of Californian cuisine. She believes that organic foods, free from herbicides and pesticides, are essential for good health, full enjoyment, and the well-being of local farmers and growers and the environment. She is a vice-president of the Slow Food movement, and is believed to be the inspiration for Michelle Obama's White House organic vegetable garden. She believes in mindful eating, in good company. She says: 'Change the food in the schools and we can influence how children think'. Here is what she wrote to celebrate Michael Pollan becoming selected as one of *Time* magazine's 100 most influential people of 2010, in the Thinkers category.

Not many people are so committed to their work that they would purchase a live steer just to learn something. Michael Pollan is.

Unwilling to accept the food industry's account of where beef comes from, Michael bought a steer in Kansas to follow the life-cycle of a kernel of corn from the laboratory to the feed bin to the restaurant where the beef is served. It's a harrowing tale, and since the moment I heard him tell it, I have not served corn-fed beef of any kind. I was Pollanized - and I am not alone.

In the Oscar-nominated documentary *Food, Inc.* and in his books *Food Rules* and *The Omnivore's Dilemma*, Michael tells complex stories in an engaging voice. When he speaks live, I've seen thousands grip their seats as they realize what our food system has become and how badly we need to fix it.

Michael's rock-star status isn't just about his rigor or brilliance. He thinks about the ethical bonds that connect our bodies, farms and food. In so doing, he has become an example to the rest of us.

From Time magazine, 29 April 2010

Christopher Gardner



Christopher Gardner wrote to us from California: he is assistant professor of medicine at the Stanford University Prevention Research Center. He is a life-long vegetarian 'for the usual reasons' but not quite vegan – he will eat an egg if he has met the hen, and he has eight chickens in his backyard. He founded the annual Stanford Food Summit in 2010, attended by hundreds of scholars from all faculties, of medicine, earth sciences, humanities and sciences, engineering, law, business, and education. He says: 'My long-term vision is to create a world-class Stanford centre for education and research in food systems, and build on the idea that Stanford is uniquely positioned geographically, culturally, and academically, to address national and global crises in the areas of obesity and diabetes, directly related to our broken food systems'. He believes in home food preparation and cooking with family and friends.

When did I come across Michael Pollan?

This was in 2006 when my father-in-law passed along *The Omnivore's Dilemma* to me with some urgency, telling me it was a 'must' read. It was certainly engaging and informative. I then read his 2007 *New York Times* Sunday magazine cover piece titled 'Unhappy Meals' (access the pdf at the beginning of this feature) which was the precursor to *In Defense of Food*.

After reading this piece, in which he pointed out that nutrition scientists are part of the problem, I wrote to him to point out that even though he had just trash-talked my profession, I agreed with a lot of what he said. He invited me to lunch at his house, and soon after that I was helping him to review the scientific research citations he was using in an advanced draft of *In Defense of Food*. He had most of it right. This was impressive for someone whose training wasn't in research. I made a few suggestions which he said were helpful.

What impressed me at that time?

I am impressed by his ability to take a topic as basic as 'food' and to make it compelling, engaging, pleasurable, relevant to everybody, and eminently important.

Rate his work and impact

The growing 'Food Movement' that has been percolating for many decades recently started to boil – it has taken a quantum leap forward. I believe this is

because many factors have all recently aligned in a 'perfect storm'. If one were to ask several dozen individuals in the area what a list of those factors might be, I'm sure there would be some variability in the specifics of the list. However, I am confident that every list would likely list the power of the voice that Michael Pollan has brought to this cause.

Quote one of his sayings that stays with me

As a nutrition scientist, one of Michael's quotes that stays with me is his view on *nutritionism* – 'the widely shared but unexamined assumption ... that the key to understanding food is indeed the nutrient'. His point is that since nutrients are invisible, people have to rely on nutrition experts to make food choices that are based on nutrient content. I have always been frustrated that nutrition science is so often very confusing to the general public. Phrasing it and framing it this way helped me to better understand public confusion about health and nutrition, and to realise and accept that I have at times been (unintentionally) contributing to this confusion.

Has his work changed my thinking and if so, how?

After two decades of being a nutrition scientist, I finally had to admit to myself in the last five years that 'health' is not a particularly strong motivator for dietary behaviour change for most people. In my earlier and more idealistic days I felt that if I could only help to clarify more about what was and wasn't 'healthy' that this would enable people to make better dietary choices.

While I still believe this is important, I have learned that for many people it isn't enough. Michael's work helped me to understand the potential power of linking food to animal rights and welfare, national security and defence, energy independence and climate change, and more. All this helped me to better appreciate the many factors that go into people's food choices. It has reinforced my belief that if we really want to make a substantial impact on those choices, we should be willing to think beyond just personal nutritional health. I now teach a class on these additional topics to Stanford undergraduates titled 'Food and Society', and have begun to shift some of my research to this area. The shift has been very satisfying.

Does his work have relevance outside the USA?

Food is now more global than it has ever been, and will likely continue to grow even more so. His work certainly has relevance outside the USA.

Which of his publications do I most recommend?

My favourite is *In Defense of Food* because of the way it addresses the confusion around food and nutrition. For someone who wants to get a quick idea of whether or

not they want to invest the time into reading any of his work, I highly recommend his 2008 New York Times Magazine piece 'Farmer in Chief' (access the pdf at the beginning of this feature).

Boyd Swinburn



Boyd Swinburn wrote to us in-flight to Noumea in New Caledonia (shown above, right) and thus wins this month's author exotic location prize. He is co-chair of the International Obesity Task Force. He is professor of population health at Deakin University, Melbourne, Australia, and also professor of population nutrition and global health at the University of Auckland in his native New Zealand. Above (middle picture, third from the right, back row), he is at the *Rio2012* conference with Barry Popkin, Claudio Schuftan, Patti Rundall, Walter Willett and Marion Nestle and (centre, back row) his IOTF colleagues Philip James and Tim Lobstein. Coiner of the term 'obesogenic environment' he says: 'the underlying drivers promoting overconsumption of food, and its resulting obesity, have the same roots as those that drive our over-consumption of fossil fuels and resulting greenhouse gas emissions and climate change'.

When did I come across Michael Pollan?

In 2006. This was when Bill Dietz recommended *The Omnivore's Dilemma* to me just after it was published. Since Bill is one of the world's most eminent childhood obesity researchers and policy-makers, I had to go right out and buy the book, and I started reading it on the plane home. I subsequently saw the TV series based on *The Botany of Desire* which takes such a fascinating angle on plants. His quirky book *Food Rules* is such fun and makes for ideal quick reading. People pick it up and flick through if it is lying on a coffee table, and it also it makes fun bathroom reading.

What impressed me at that time?

Michael Pollan has the glorious gift of being able to dive into a lot of complex information and surface with the essential nuggets in hand. Nutrition is a complex area and there are many conflicting messages from the media, nutritionists, dietary guidelines and writers of popular diet books. Pollan's 7-word nugget of *Eat Food, Mainly Plants, Not Too Much*, his mantra in his book*In Defense of Food,* is simple, robust and, in my view, spot on.

He builds his stories around his fascinating investigations into the food industry in the US and expertly brings in the need to balance nutritional, environmental and ethical considerations, showing how they all point to the need for populations, especially meat-addicted western populations, to move towards a plant-based, whole food diet.

Rate his work and impact

Michael Pollan is now being joined by other authors and commentators. Colin Campbell's *China Study* and Michael Moss's *Salt, Sugar, Fat* are two books that I have recently read which add further compelling evidence against the meat-based, ultra-processed diet that food product corporations provide, that we in the western world have been over-consuming for decades, and that the rest of the world is now pursuing.

This diet is totally unsustainable, often unethical in terms of animal welfare, and is the main driver of obesity and many of the chronic diseases which now dominate the burden of disease in most countries. Further, the Big Food fight-back against any regulatory approaches to create healthy, sustainable, equitable diets is extremely wellresourced and it remains dominant.

The pressure for stronger government action is still largely professional with organisations like the World Public Health Nutrition Association and its *World Nutrition Rio2012* conference leading the way. Professional pressure for government action is necessary. But this is not sufficient when the counter-pressure from the commercial sector is so powerful. A more popular movement is needed to reclaim food sovereignty back from the giant food product corporations. Michael Pollan and other influential authors are contributing to this movement with their vanguard books and articles on food.

Quote one of his sayings that stays with me

The sayings that have come from Michael Pollan, like his 7-word nugget quoted above, or that he has collected from crowd sourcing in *Food Rules* (like 'If it comes in through the car window, don't eat it') are classics. One I particularly like is his classification of modern processed products that his grandmother would not recognise, as 'edible food-like substances'.

On a recent trip to the US, I felt the idea could even be extended beyond ultraprocessed products. I was offered a magnificent bowl of various visually-appealing fruit. On choosing several and tasting them, I realised that they were more akin to 'colourful, fruit-shaped foods' that had no taste. Red Delicious apples with their genetically-endowed long shelf life, appealing deep red colour, and insipid taste. Big red strawberries that had been picked green and artificially 'ripened' (in colour but not taste. Honeydew melons bred for watery volume, never mind the watery taste. Only the grapes seemed to survive with some taste and fruity sweetness intact.

Give an example of where he has made a difference

Judging by the people that filled the Town Hall when he came to speak in Melbourne where I work at Deakin University, Michael Pollan seems to have struck a chord with so many people who want their food to be real and tasty and healthy and supportive of local communities and growers. The audience may have been filled with the wellto-do, some born-again hippies, and the health-conscious, but I believe that this is the leading edge of consumer and citizen demand for a better food system to meets personal and society's long term food needs, not merely short term food wants.

Has his work changed my thinking and if so, how?

Investigative authors like Michael Pollan and Michael Moss go behind the scenes to expose the real world of food, money and politics, and tell the stories to the public. In science, we add our bit with our research and our peer-reviewed publications, but we really need the writers and commentators to add their dimensions. Michael Pollan has taught me that simple messages about food can be robust and useful. Dietary guidelines have been obsessed with nutrients and indeed, most of our current nutrition research remains nutrient-obsessed. When the message shifts from nutrients to foods and meals, it becomes simpler, more connected, more actionable.

Does his work have relevance outside the USA?

The US food system is by far the worst in terms of being dominated by Big Food – the giant food oligopolies. This gives people in the US (and elsewhere in North America) incredibly obesogenic food environments and very little power to change them. Further, as the USA goes, so goes the world.

The commercial colonialism by transnational food corporations, especially through bilateral and multilateral trade and investment agreements, is a central plank of globalisation – giving the world all of the goods and the bads of globalisation wrapped up in one profit-making package.

In what ways if any do I think he is mistaken?

There is a tendency for people in the US in general to think the world stretches from Washington DC to Los Angeles. I would love investigative journalists and authors to expose the food systems in India, China, sub-Saharan Africa and the Pacific Islands in the same way they do for the US. There will be some similarities and some differences which will be fascinating to see.

Which of his publications do I most recommend?

The Omnivore's Dilemma is the classic. It contains the core themes on the overindustrialisation of food systems, which can have endless spin-offs, angles and ramifications to explore.

Any other thoughts or comments

The next challenge, having exposed the problems, is 'What are the solutions?' This is where we really need to be pulling out the stories around creating sustainable, equitable, healthy and prosperous food systems. What are the exemplars that show that it can be done? (New York City would be a good place to start). What are the core policies needed to reclaim food sovereignty? What is the evidence that such policies can work? What are the indicators to show that our food environments are heading in the right direction?

Michael Pollan has given us guides to personal food choices. What's also needed now, are guides for whole populations to act also as citizens, to help shape food systems and food supplies that will support the choices of everybody to improve personal, societal and planetary health.

Francine Lima



Francine Lima wrote to us from São Paulo, Brazil. Since her graduation from the University of São Paulo (USP) in 1997, she has published many reports and articles about healthy behaviour, nutritional recommendations, food labelling, fitness, urban biking and allied topics. She also works to help new authors to bring their ideas about eating habits and work-out routines to their writing. She has interviewed Marion Nestle, Alice Waters, Jonathan Safran Foer, and yes, Michael Pollan. With their work as her inspiration, in 2012 she entered the master's programme in public health nutrition at USP. With the guidance of Carlos Monteiro, she is analysing how food labels communicate different ideas of healthy eating. Her intention is that communication about foods and the food environment can become more interesting, and easy to use. She writes about healthy living in her blog: www.umaequilibrista.com.

When did I come across Michael Pollan?

In 2007. I was a reporter at *Época*, the weekly news magazine of Globo, the biggest media group in Brazil. At that time I wasn't a columnist yet, but I was trying to

write more pieces about healthy eating, so once in a while my boss would suggest some reading on the topic. I can't remember exactly how *The Omnivore's Dilemma* came to my desk, but I do remember how it hit me in irreversible ways. I had already read Eric Schlosser's *Fast Food Nation* and Marion Nestle's *Food Politics*, so I had a good idea of how the food system in the USA worked. More than this, Michael Pollan's book connected things in a way that made me realise how far health journalism and writing in general in Brazil, is from seeing the whole picture.

What impressed me at that time?

He has left his desk to write that book, something my colleagues and I have little scope to do before writing a report. I envy the amount of research he has done, the number of places he has travelled to, the scientific knowledge he has accumulated, and his capacity to understand the reality so deeply that he can deconstruct the kind of discourse we are accustomed to absorb from fragmented media. And he never does this in a pedantic or dull way. His writing is always clear, easy and irresistible. When you read his books you are likely to be convinced.

Rate his work and impact

After reading *The Omnivore's Dilemma*, I had to follow his work, which became the most important reference to the kind of journalism I wished to do as a professional interested in public health. This was not easy to do from where I was then. Investigative health journalism is not exactly the kind of thing the Brazilian media is asking (or paying) us to do. But when I talked with nutritionists who value and quote Michael Pollan, I knew he is not only a great journalist: he is one of the strongest voices of a movement for the rescue of people's awareness. He is the one showing us that we are what we know about what we eat.

Has his work changed my own work and if so, how?

His work has shown me that I can be a journalist with a cause, and that this combination of roles was something to be pursued. So I decided to go back to university and look for different ways to bring our message to the audience. Maybe the mainstream media was not the best place to do it, I thought, as Big Food is one of its main sponsors. Currently I am not employed in any media company. I write for magazines as a freelancer and publish my own stories in my blog (see above) while I search for people and organisations that I can consider allies for future projects.

Which of his publications do I most recommend?

The Omnivore's Dilemma is the one I consider the most complete, and I strongly recommend it for all those who seek to really know what's going on. In Defense of Food goes more straight to the point, and Food Rules is the synthesis of his advice, which may be a good start for those who just want to know what to do, not so much why.

Isabela Sattamini



Isabela Sattamini is the *WN* assistant editor responsible for Feedback, our letters column. She wrote to us from Rio de Janeiro. In 2005 she participated in the World Social Forum in Porto Alegre, Brazil, and got in touch with social movements that champion people's sovereignty. In 2007 she entered the nutrition school at the State University of Rio de Janeiro, and learned about the social and cultural importance of food consumption, rather than just the biological nutrient-based view. At university she began to study Michael Pollan's books on food and nutrition. During her time at university she worked with low income families, gave them nutritional advice, and so learned more about the social and environmental determinants of health. She has just finished her MSc at the Oswaldo Cruz Foundation (FIOCRUZ). Her current research is on food policies related to social and other development.

When did I come across Michael Pollan?

In July 2008. I was in New York City, spending a month with a friend. I was taking some classes in the Natural Gourmet School on 21st Street in the Flatiron district. learning to cook in a healthy way, and looking into the city's so many opportunities for new experiences. I was on vacation from my nutrition course at Rio de Janeiro State University, and I was eager to know a bit about US food and nutrition. I was also finishing my studies for the Cambridge diploma of proficiency in English, and love to read books in the language, especially on nutrition. So in I went to the local Barnes and Noble bookstore, and there was *The Omnivore's Dilemma – The Search for a Perfect Meal in a Fast Food World*. Just what I was looking for! I bought it right away. Then I watched some of his interview videos on the internet,

What impressed me at that time?

At that time, I was in the middle of my second year in university and still hadn't found what I was looking for (to quote U2). I was critical of the nutrition science idea that is based on counting nutrients. This seemed to me not to matter much. I felt there were much more important issues not being exposed and the focus of attention was wrong. But I didn't think about giving up, because I knew there was something special waiting for me, it was just a matter of time. Reading *The Omnivore's Dilemma* was crucial and enormously helpful. For the first time, I know there were people in the world that thought and wrote about what was on my mind. Michael

Pollan writes about what really matters. This was reassuring, and led me to read other authors, and I finally started to see the whole area with which I identify. It was the beginning.

Rate his work and impact

He has a simplicity and ability to get straight to the point of important issues. It is an honest writing that reaches all types of reader, from beginners to specialists. He shows how simple it is to enjoy healthy, culturally adequate diets. At the same time, he shows the obstacles: large distances between food production and consumption, lack of conscience of food product manufacturers, among others. He reaches his conclusions after intensive research, visiting farms and factories, interviewing producers and consumers.

Quote one of his sayings that stays with me

My favourites are all the 12 rules for eating. Here is my translation into English of my Portuguese version of *In Defense of Food*. (1) Don't eat anything your grandmother wouldn't recognise as food. (2) Avoid foods containing ingredients with names you can't pronounce. (3) Don't eat anything that cannot perish. (4) Avoid food products that make health claims. (5) Avoid the central aisles of supermarkets and prefer buying from the side aisles. (6) Even better, buy food in other places. (7) Pay more, eat less. (8) Eat a larger variety of foods. (9) Prefer food products of animals that graze. (10) Cook, and if possible, grow some of the items on your menu. (11) Prepare your own meals and eat only at the table. (12) Eat with attention, in company when possible, and always with pleasure.

Has his work changed my own work and if so, how?

Michael Pollan is an example of a really engaged person, who works and writes about what is important for him, aiming to help people to rethink their habits and expand their horizons. He is an inspiration for me. I intend, like him, to research, learn every day and work with what I love, which is to understand the structures of the food system that influences and determines what and how people eat in the world.

Does his work have relevance outside the USA?

Michael Pollan has great influence in the United States. Also in Brazil, where I live, he is well known by those who are interested in the field. It seems to me that he opens paths for others. I am impressed by him being a journalist, which is inspiring and makes me realise how people from different areas can participate and contribute to the field.

Which of his publications do I most recommend?

So far I have read *The Omnivore's Dilemma* (2006), and *In Defense of Food* (2008). I intend to read his other books and publications.

(Scroll down for Michael Pollan's own selection of best current books)

Box 2 Farmer Jane on Michael Pollan

Here is one of the responses to Marion Nestle's support of Michael Pollan and our April set of appraisals. It's from a working farmer in the US. It is posted on http://www.foodpolitics.com/2013/04/michael-pollans-cooked-and-appraisals-byfood-academics/#comments

In 2009, during the Great Milk Price Crash, I first encountered Michael Pollan. In Deep Rural New York, dairy farmers were crushed under a massive downward price swing for milk. Farmers held rallies, demonstrations, agriculture students picketed for 'Fair Trade Milk'. We saw farmer suicides, families broken up and farms lost in rural New York. Calling out to New York City food movement groups for help, to a group, we were told that they actually supported more of 'local' food, like vegetables and farmers markets. Some referred me to read Michael Pollan or Frances Moore Lappé.

I read *In Defense of Food* and liked the message. After all, many of us dairy farmers have pushed for real milk, butter instead of margarine, enforcement of standards of cheeses, real food. We see our product as nutritious, the work of the land and our hands.

Mr Pollan is a good guy. He has responded thoughtfully to me when I emailed him about the average dairy farmers (unlike plenty of food movement leaders who never deign even a grunt back). I'd say his work is very influential. Whenever I ask a book store if they have any books on agriculture, they refer me to read Michael Pollan. Most farmers I know are very happy with Michael Pollan's message of cooking and good nutrition.

We are glad that Mr Pollan has gotten the ball rolling in terms of people thinking about the food system. In my lifetime, I witnessed the depopulation of US farms. I watched as 9 out of 10 dairy farmers, many friends, lost their farms or just plain left.

Upstate, some 3,000,000 acres of former grazing lands now stand empty or underused. Drive around and look at the broken barns, abandoned lands, empty Main Streets in former farming villages. The same goes for other types of farming...massive farmer depopulation. The public generally was silent as it happened, even working to make it happen with demands for cheaper food.

Up until 1998, New York City food groups were openly fighting for cheaper milk from upstate New York, breaking up our farmer collective bargaining efforts. So, Mr. Pollan's books about food and agriculture are a good thing. He's a great writer!

For his next venture, I'd like to see Michael Pollan drill down into talking with the farmers across rural America. So far, the literature of the food movement has expunged the history of farmer justice past and present...that is the story of what we, the American farmers did (and are now trying to do) as we fought for the land and our farms in recent decades. From the tractor-cade of 1979, the demonstrations of the mid-1980s in the Farm Crisis, the mobilization of rural churches, milk strikes, farmer action networks...there is a rich history of farmers themselves trying to warn the public of the industrialisation of US food.

My primary criticism of Mr. Pollan is that he (along with other food movement writers) should talk more to commodity farmers. 'Local' fruit and vegetable farmers are lauded, while Deep Rural commodity farmers not so well placed to sell into 'local' markets are looked down upon, almost demonised. Global scale cities need to take a look at their regional resources to see how they translate into good food for their region.

Michael Pollan

We corresponded with Michael Pollan from his base in Berkeley, California. We hope that those *WN* readers who until last month did not know so much about his work, its significance and influence, are now well informed! What may be generally less well-known about Michael Pollan, although evident also in his more recent books and other writings, is his grounding in the natural philosophy of nature, and his experience as a gardener and his knowledge of plants and animals and the whole web of life, in the US tradition that includes Thomas Jefferson, Walt Whitman and Ralph Waldo Emerson. This was emphasised last month in our April issue by the appraisals of his work by Joan Dye Gussow and Frederick Kirschenmann. When asked himself to recommend five current books, as he does here, Michael Pollan's own broad experience and understanding of the whole context of nutrition and health is evident.



Michael Moss: Salt Sugar Fat.

He has written a *Fast Food Nation* for the processed food industry. Burrowing deep inside the big food manufacturers, he discovered how junk food is formulated to

make us eat more of it and, he argues persuasively, actually to addict us. Moss also got food company executives to reveal their inner deliberations about things like the obesity epidemic -- about which they decided only to pretend to do anything -- and the troubling parallels between their industry and the tobacco industry.

Nathanael Johnson: All Natural.

A quirky and fascinating book, one of a kind. Johnson's parents were stalwart hippies and raised him according to the orthodoxy that whatever is most natural is best, so: natural childbirth at home, no sugar in the diet, no clothing on the baby (not even diapers!), natural medicines etc. Johnson decides to examine the scientific basis of these practices, and lo and behold, discovers more justification than you would expect for a radically less-industrialized approach to managing the various stages of development, life and death.

Jon Mooallem: Wild Ones

A contributing writer to the *New York Times Magazine,* he has written a brilliant piece of what I think of as 'post-wilderness' nature writing. Using the case studies of the polar bear, the little-known Lange's metalmark butterfly, and the whooping crane, he casts a completely fresh eye on the extinctions going on around us, using them to explore our schizophrenic attitudes toward animals as well as our own place in nature. The book is as funny as it is sad, beautifully observed and written, and wiser about the human condition than anything I've read in a long time.

Daphne Miller. Farmacology

A family care doctor in San Francisco who decided to take seriously Sir Albert Howard's famous injunction that we treat 'the problem of health in soil, plant, animal and man as one great subject'. So what does the practice of sustainable agriculture have to teach modern medicine? What are the links between soil health and the health of the people who eat from that soil? What can the farmer teach the doctor? This is a highly original and compelling work of exploration with large implications for our understanding of health.

Moises Velasquez-Manoff. An Epidemic of Absence

What in the world does the ecosystem of microbes living in the gut have to do with the development of autism or heart disease or allergy? Quite possibly everything, according to this masterful work of science writing. This is one of the first comprehensive reports from the most exciting frontier in modern medicine: the microbiome, the genes of the microbes who share your body. It turns out their genes may matter more to your health than your own.

Status

Readers may make use of the material in this column if acknowledgement is given to the book's publisher. Please cite as: Schama S, Dawson T, Waters A, Gardner C, Swinburn B, Lima F, Sattamini I, Pollan M. Forward to nature. [Appraisals]. *World Nutrition* May 2013, **4**,5, 270-295..

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