

## Part 2 Confluence



The authors of the 12 commissioned papers in Part 2 of this special issue have a variety of backgrounds, experience and knowledge. Some are nutrition scientists who take a broad view of the discipline. Others, working partly or mostly outside current conventions, are involved with food and nutrition policy and practice. From the point of view of current orthodoxy, some are insiders looking out; some are outsiders looking in.

### Selection

Taken together the papers do not represent all points of view, and were not designed to do so. Their first bias is that the authors are advocates, as evident in their accounts of themselves (pp. 795–799). They see a ‘big picture’: they are convinced that to work well in the world now, nutrition science should be defined broadly and include principles and domains such as ethics, evolution, ecology, economics and equity. Their views are not ‘balanced’ with others preferring that nutrition remains principally a physiological, biochemical and medical science: such was not the purpose of this project.

The second bias is that most of the authors are academics in nutrition science and allied fields, while most also are or have been consultants to United Nations agencies, national governments and/or non-government organisations. People from government, civil society and industry, and more lay writers, could have been included. But given the nature of *Public Health Nutrition* and of the International Congress of Nutrition at which the first conclusions and recommendations of *The New Nutrition Science project* are being presented, this bias seemed reasonable.

There is a rough balance between authors who currently work in Africa, Asia and Latin America, or have done so, and those who work in Europe and North America. A more representative selection would have included more citizens of middle- and low-income regions and countries and more people in the first half of their careers. This third bias was partly caused by a limit to the funds for intercontinental travel to the Giessen workshop, partly because senior people are better able to command their time.

### Authors

While drafted separately and independently, common themes emerge. In the introductory paper (pp. 701–705) *Geoffrey Cannon* shows that original thinking on food, nutrition and health in the West was broad, as it remains in

Eastern tradition. He outlines reasons for the ascent and descent of nutrition science between the mid-nineteenth century and the end of the second half of the twentieth century.

*AJ (Tony) McMichael* (pp. 706–715) confronts the challenge of balancing the health of humans with the long-term health of the biosphere. We can no longer afford to make our own species the centre of our thinking. Food and nutrition policies must take into account that living and physical resources are becoming depleted. ‘The scope of modern nutrition science should therefore encompass both biomedical nutrition–health issues, and the wider challenges of achieving sustainable food production, greater equity in relation to food and nutrition, and good health prospects for future generations’.

*Colin Tudge* (pp. 716–723) also takes a broad view. Nutrition cannot be separated from food; and good food should mean enlightened agriculture. ‘There is an absolute one-to-one correspondence between good husbandry, sound nutrition and great gastronomy’. But: ‘We have created a world in which almost a billion are chronically undernourished; and another billion are horribly overnourished, so that obesity and diabetes are epidemic’. Food and nutrition policy and practice needs rethinking from first principles.

Broad integrated systematic thinking is also proposed by *Massimo Pettoello-Mantovani* (pp. 749–752), and for similar reasons. ‘Such a system should involve... resources, evolution, history, ecology, environment, biodiversity, agriculture, traditional elaboration of food, technology, industry, health, equity, economics, politics, philosophy and ethics’.

Assessment and analysis of what are now vast and accelerating global shifts in patterns of nutrition and disease, and effective action to control and prevent obesity, diabetes and other chronic diseases, require a grasp of technological, social and economic developments beyond conventional nutrition, states *Barry Popkin* (pp. 724–729). In what is now a global ‘obesogenic environment’, machines have displaced human activity, cities are unsafe places in which to walk and cycle, and food distribution, and advertising and marketing have become globalised. He envisions nutrition science as a field ‘in which scholars from a range of disciplines and perspectives meet to work together for a better world’.

The new nutrition is also a revival, states *Tim Lang* (pp. 730–737). The drift to biological reductionism forgets that ‘nutrition has made advances only when engaged with society... Policy-makers have been weak in

responding to evidence from nutrition science, but this failure has also been due to nutrition lacking good champions, coherent organisations, and political will'. Nutrition science can become effective: 'Rising awareness of the rising global obesity epidemic is shocking nutrition scientists into becoming engaged again'.

The renewal is of what is deep in history and culture. *Klaus Meyer-Abich* (pp. 738–742) draws on philosophies of nature from Plato to Goethe, in bringing together ethical, rational and sustainable approaches to food and nutrition. 'A comprehensive nutrition science will consider where our food comes from; will not appropriate resources but accept gratefully what is granted; and will no longer remain anthropocentric, but study the contribution of nutrition to human health in nature of which we are a part'.

Other authors also refer to tributaries of what is now a confluence. *Micheline Beaudry* and *Hélène Delisle* (pp. 743–748) state that the concept of 'public nutrition', which links food systems, food security and health systems, fits within the conceptual framework of the new nutrition science; nutrition 'should deal with the relationship of human beings with their food, whether in its biological, socio-economic, political, ethical or environmental dimension, for the production of health and well-being'.

The new nutrition science 'is an invitation to consider not only individual health but also that of society, the environment and the planet as a whole, as citizens and consumers and also as health professionals' states *Claus Leitzmann* (pp. 753–759). 'Wholesome nutrition' as now taught and practised is the new nutrition already in action, as are the traditional food systems of the Mediterranean and Asia. 'The main recommendations of wholesome nutrition are to favour plant-derived whole foods, processed as little as possible but as much as necessary'.

*Esté Vorster*, *Barrie Margetts* and colleagues (pp. 760–765) also give an account of the new nutrition science already in action. 'Africa and other economically developing regions are now suffering a double burden of obesity, diabetes and other non-communicable diseases, on top of nutritional deficiencies and infectious diseases. Our current approaches are not controlling nutrition-related diseases at population levels'. They cite their own 'holistic, integrated, sustainable policies and interventions. These should also conserve the environment, and human, living and physical resources now and in future'.

*Mark Wahlqvist* (pp. 766–772) and *Ricardo Uauy* (pp. 773–780) are the presidents of the International Union of Nutritional Sciences (IUNS), 2001–2009. Both are

physicians grounded in nutrition as a biological science. *Mark Wahlqvist* states: 'Nutrition science has made giant strides in the last century. But the human population continues to increase, and the global climate is changing, with vast implications. Our science has been good in specific ways, but has ignored and overlooked planetary welfare and thus the basic determinants of human health and well-being. We must now ensure that the practice of our science supports sustainable ecosystems and healthy environments'.

*Ricardo Uauy* states: 'The chemical and biological sciences have provided a strong base for nutrition and have been essential in establishing nutrition as a science with public health relevance. However, these approaches are clearly insufficient to address the main challenges that confront nutrition science now in the twenty-first century'. He goes on to state: 'There is a pressing need to include the social, economic and human rights aspects in order to define future policies that will secure the right to safe and nutritious food for all'.

### Process

Authors were asked for papers stating what should be the scope of nutrition science. They were also asked to read and comment on the drafts of all the other papers, and also those published elsewhere in this issue of *Public Health Nutrition* (see Parts 1 and 3); to participate in the Giessen workshop; to revise their papers in the light of the workshop discussion and agreements; to accept editing meant to eliminate gaps and overlaps between papers and to introduce consistencies of approach and style; and also to respond to peer reviews.

### Thanks

*So no thanks to Geoffrey Cannon and Claus Leitzmann, who devised this process! But many thanks to Tony McMichael; Colin Tudge (who accepted the procrustean practices of academic journals with fair good humour); Tim Lang; Klaus Meyer-Abich (whose success in gaining acceptance of the principle of co-responsibility is passed into legend); Micheline Beaudry and Hélène Delisle, who were asked to revise their paper as a result of discussions at the workshop they were unable to attend, and thus gain a prize for forbearance; as do Barry Popkin and Ricardo Uauy, committed to the coincidental meeting of the Federation of Societies of Experimental Biology (FASEB) at San Diego; Massimo Pettoello-Mantovani; Esté Vorster and Barrie Margetts; and Mark Wahlqvist.*