

**From:**

BART PENDERS

## **The Diversification of Health**

Politics of Large-Scale Cooperation in Nutrition Science

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Complex problems and ambitious goals are often thought to become easier by enlarging and diversifying the group of experts dealing with them. As a result, these complex entities are fragmented into smaller ones that can be dealt with by single laboratories. Bart Penders ventured into nutrition science to observe and join teams of scientists to find out what happens to these problems and goals. He attended conferences and workshops and worked in their laboratories. He shows that scientists mobilise everything in their power to solve problems: they reconstruct elements of the problem, such as our health. In the process, the search for health has led to its diversification.

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## Preface

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Four centuries ago, John Donne wrote that ‘no man is an island’.<sup>1</sup> He referred to the interconnectedness of human beings; the realisation that they do not exist in isolation from the people around them, and the world they live in. Donne’s words equally apply to the academic world and its inhabitants, whether scientists or scholars. In this ethnographic analysis of large-scale scientific research, one can observe very much the same. Laboratories do not exist independent of one another, nor do the people, materials and knowledge in them. Although from time to time, it may seem that way. Not only is this part of the topic of the book that lies before you but it also refers to the countless others (both people and material) that contributed their share to the completion of this book.

I would like to thank the Societal Component of Genomics research programme (MCG) of the Netherlands Organisation for Scientific Research (NWO), as well as Maastricht University for supporting the research that led to this book. Also, I would like to thank all the nutritionists, geneticists, medical doctors, bioinformaticians, statisticians, microbiologists, molecular biologists, dieticians, policymakers, directors, industry representatives, R&D scientists and other researchers that cooperated with my research. Out of all these, some deserve even higher praise for allowing and enabling me to walk around in their labs for weeks at a time and patiently answering endless questions.

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**1** | ‘No man is an island, entire of itself; every man is a piece of the continent, a part of the main’. From: Meditation XVII (1623) by John Donne (1572-1631).

I would like to thank all my colleagues, initially at the Department of Health, Ethics and Society at Maastricht University, and later also at the Centre for Society & Genomics at the Radboud University Nijmegen. I am indebted to many of my peers whom I met and discussed with at a variety of conferences all over the world and to the scholars at the Institut für Wissenschaft und Technikforschung of the University of Bielefeld, Germany, where I spent the summer of 2007 as a guest researcher. I owe a lot to the Dutch STS community, gathered in WTMC. This book especially improved from critical comments by Erik Aarden, Wiebe Bijker, Mechteld-Hanna Derksen, Chris Evelo, Ine van Hoyweghen, Michiel Korthals, Edwin Mariman, Annemiek Nelis, Maud Radstake, Wim Saris, Fons Werrij and Hub Zwart. Special praise is reserved for Klasien Horstman and Rein Vos, without whom the research that led to this book would neither have started, nor finished.

Finally, there is a select and very exclusive group of people, whose contribution cannot be exaggerated: Mum, Dad and Sam, thanks for your unwavering trust, support and belief and Audrey, thanks for patiently waiting too long and too often because of this book.

I would like to thank *Tailoring Biotechnologies* for allowing to use parts of a paper I co-authored there;<sup>2</sup> I would like to thank Elsevier for allowing me to reproduce fragments from, and expand upon two papers I published with them;<sup>3</sup> I kindly acknowledge permission from Maney Publishing for allowing me to reproduce and expand upon a paper published in *Interdisciplinary Science Reviews*<sup>4</sup> and I would like to thank Cambridge University Press

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**2 |** Cf. Horstman, K./Aarden, E./Geelen, E./Van Hoyweghen, I./Penders, B./Vos, R. (2008): »Genetics and practices of food, families, insurance and health care: From impact towards co-construction«, in: *Tailoring Biotechnologies* 4(1/2), p. 23-40.

**3 |** Cf. Penders, B./Vos, R./Horstman, K. (2009): »A question of style: method, integrity and the meaning of proper science«, in: *Endeavour* 33(3), p. 93-98 and Penders, B./Horstman, K./Saris, W. H. M./Vos, R. (2007): »From individuals to groups: a review of the meaning of 'personalized' in nutrigenomics«, in: *Trends in Food Science and Technology* 18(6), p. 333-338, both articles published by, and copyright held by Elsevier.

**4 |** Cf. Penders, B./Horstman, K./Vos, R. (2009): »Large-scale research and the goal of health: An analysis of doable problem construction in 'new'

for their permission to reproduce parts and expand upon a previous paper.<sup>5</sup> I would also like to thank the American Institute of Biological Sciences for allowing me to continue the argument started in *BioScience*<sup>6</sup> and I would like to thank all my co-authors for letting me use these fragments in this book.

*Christchurch (New Zealand), March 2010*  
*Bart Penders*

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nutrition science», in: *Interdisciplinary Science Reviews* 34(4), p. 332-349, published by, and copyright held by Maney Publishing.

**5** | Cf. Penders, B./Vos, R./Horstman, K. (2009): »Side effects of problem solving strategies in large scale nutrition science: towards a diversification of health«, in: *British Journal of Nutrition* 102 (10), p. 1400-1403, published by Cambridge University Press.

**6** | Cf. Penders, B./Horstman, K./Vos, R. (2008): »Walking the line between biology and computation: the ›moist‹ zone«, in: *BioScience* 58(8), p. 747-755, published by, and copyright held by the American Institute of Biological Sciences.