

Expertise and Citizenship. The Organization of Trust

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To be included in Evert Peeters, Joris Vandendriessche and Kaat Wils eds., *Performing Expertise. Scientists between State and Society, 1860-1960* (Pickering & Chatto)

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A silent revolution seems to be taking place in western health care systems. In the Netherlands, this became clear in 2009, when medical lay people challenged the authority of the profession and the state twice, using the Internet as their weapon. In two instances, the public was warned against the dangers of vaccination in general and of the vaccines on offer in particular. One was against HPV – the virus that may cause cervical cancer – the other was against H1N1, the virus responsible for the ‘Mexican flu’.

Both vaccination campaigns were supported by the highest medical and political authorities. In both cases, however, scientific claims of experts were cast in doubt and their authority was challenged. What is the meaning of this? How is it possible that the medical profession and the state have come to be doubted? Has there ever been an era in which the profession and the state were trusted? If so, when and why? These are important questions, which seem to be at the heart of this volume. But let us first take a closer look at developments with regard to the HPV vaccination campaign.¹

The human papillomavirus (or HPV) is known to cause abnormal cell growth of skin and mucous membranes.² In the case of an infection, there is an increased chance of developing specific forms of cancer, among them being cervical cancer. It is estimated that in the Netherlands, 200 women die from cervical cancer every year. In 2008, two vaccines became available: Gardasil (developed by Merck) and Cervarix (produced by GlaxoSmithKline). They were said to decrease the risk of developing cervical cancer by

¹ On the HPV vaccination campaign in the Netherlands, see Paulus Lips, ‘Over de grens van wetenschap: de vaccinatie tegen baarmoederhalskanker’ in: Huub Dijkstra and Rob Hagendijk eds., *Onzekerheid troef. Het betwiste gezag van de wetenschap* (Amsterdam: Van Gennep, 2011) 75-95. See also Keith Wailoo, Julie Livingston, Steven Epstein and Robert Aronowitz eds., *Three Shots at Prevention. The HPV Vaccine and the Politics of Medicine’s Simple Solutions* (Baltimore: The Johns Hopkins University Press, 2010).

² Information from the website of the Center for Disease Control and Prevention (<http://www.cdc.gov/>). Accessed on 25-1-2010.

70 percent. The Health Council advised Ab Klink, then Minister of Health Care, to include the vaccine in the National Vaccination Program, meaning that vaccination would be offered for free by the state. Expectations were that the vaccine was capable of protecting women against the HPV virus – that was sexually transmitted – provided that they had not been sexually active yet. The Minister agreed, and decided to provide the vaccine for free to girls of 12 years and older.

A huge informational campaign was launched by the National Institute of Public Health and Environmental Hygiene (RIVM), which was supported by the Ministry of Health, the Health Council, the Dutch Society of General Practitioners (NHV), the Municipal Health Services (GGD) and the Dutch Vaccine Institute.³ A website and a newsletter were developed, and folders, brochures, posters and key rings produced. Finally, there was a special phone number that people could call to report complications. In terms of information and organization, nothing was left to chance. However, when vaccination started in March 2009, it immediately became clear that the information campaign had not really caught on. The turnout was much lower than was to be expected based on earlier experience. In advance, it was thought that more than 70% of the girls summoned would show up. In the end, only 45% completed the whole series of three vaccinations.⁴ What had happened?

Doubt with regard to the vaccination campaign had been created on the Internet. Stories were circulating claiming that the vaccine was genetically manipulated and even life threatening. The low turnout was mainly attributed to the internet campaign that the Dutch Society Critical Vaccination (NVKP) had launched. The Society had been established in 1994, by people with bad vaccination experiences.⁵ It argued that citizens were not informed about the potential dangers of vaccination, while research into harmful side effects was delayed because of the financial interests of pharmaceutical companies and the career interests of biomedical researchers. On its website, the Society complained about the great social and medical pressures with regard to vaccination. They were considered to threaten citizen's autonomy and freedom of choice. It was claimed that

³ www.prikenbescherm.nl. Accessed on 25-1-2010.

⁴ *HPV Nieuws*, 19 March, 9 April and 17 December 2009.

⁵ <http://www.nvkp.nl/>. Accessed on 25-1-2010.

education and screening could work just as well as vaccination and should therefore have priority.

One could consider the website of the Dutch Society Critical Vaccination as an attempt to educate the public by informing it. But on the Internet, there is much more on offer. For lay people it is difficult to distinguish between good and bad information – or even outright paranoia. Another website, hosted by an organization called Niburu, claimed to supply ‘awareness-building news’.⁶ With regard to the HPV vaccination, it ‘revealed’ a plot of the authorities to counter overpopulation. It was suggested that the vaccine contained nanochips that would cause a slow but certain death. The campaign was said to be coordinated by the Global Alliance for Vaccines and Immunization, which was a ‘global health partnership’ in which the Rockefeller Foundation, the Bill Gates Foundation, the United Nations, the World Bank, UNICEF, the World Health Organization and many western governments were said to participate. Whoever doubted that this was actually happening was referred to witnesses like a top official in the American army, a Cambridge professor and a professor affiliated to the French Centre National de la Recherche Scientifique.

Again: what is the meaning of this? Is this just an isolated example of paranoid confused minds? Or does it point to a broader trend in modern society? It has been argued that today, science in the service of the common interest is threatened, as scientists and policy-makers have come to see science mainly as a servant of interest group politics.⁷ This is by no means an academic issue, interesting only to historians of science or to STS scholars. It is a concern to medical practitioners as well. To quote from an editorial published in the authoritative *British Medical Journal*:

‘Today, clinical reality as perceived by clinicians has to be reconciled with patients’ beliefs, “recourses” have to be balanced against individual patient need, and ethical dilemmas spring hydra-headed from medical

⁶ <http://www.niburu.nl/index.php?articleID=17538>. Accessed on 25-1-2010.

⁷ Ben Goldacre, *Bad Pharma. How Drug Companies Mislead Doctors and Harm Patients* (London: Fourth Estate, 2012); Roger Pielke, *The Honest Broker. Making Sense of Science in Policy and Politics* (Cambridge: Cambridge University Press, 2007).

advance (...) Utterly unquestioned biological givens are disintegrating all around us (...) Doctors will become purveyors of choice – or agents of control – within the plastic limits of the flesh (...) To the postmodernist the question is whose “evidence” is this anyway and whose interests does it promote?’⁸

Have we lost trust in experts? Or did we gain awareness about the way expertise and trust are constructed? Whereas some celebrate the triumph of the autonomous citizen-patient who has finally liberated himself, others deplore the erosion of professionalism, arguing that our national health care system is under threat. Big issues are at stake. They include truth, professionalism, political leadership, responsibility, distributive justice, trust and citizenship. Are we entering a new phase in the history of expertise?

Experts, the state and society

As the literature on the topic makes abundantly clear, the relationship between experts and the state has never been unproblematic.⁹ First of all, it would be a mistake to think that expertise consists of a homogeneous body of knowledge waiting to be accepted and implemented by the state. Secondly, once experts and the state have agreed on a scientifically informed policy, it has never been a matter of simply imposing a blueprint on a passive society. Citizens could either ignore, resist, change or accept policy measures, but responses were never predictable or straightforward. While this goes for all forms of knowledge, it especially goes for medicine.

In a classic and influential article on state responses to epidemic disease in the nineteenth century, Erwin Ackerknecht suggested that there is a relationship

⁸ ‘Medicine, postmodernism, and the end of certainty’, *British Medical Journal* 313: 1996, 1568-9.

⁹ Roy MacLeod ed., *Government and Expertise. Specialists, Administrators and Professionals, 1860-1919* (Cambridge: Cambridge University Press, 1988); Dominique Pestre, ‘Regimes of Knowledge Production in Society: Towards a More Political and Social Reading’, *Minerva* 41 (2003), 245-261; XXX.

between political orientation and prophylactic regime.¹⁰ Health policies never simply entailed putting rational ideas to practice. Rather, the seemingly scientific debate was informed – even decided - by powerful social and political factors. During the nineteenth century, Europe and its colonies were struck by many serious epidemic diseases, among them being yellow fever, the plague, typhus and the biggest killer of them all: cholera. While thousands of people suffered and died from these diseases, their causes remained unclear. Physicians and states felt an urgent need to understand their etiologies and come into action.

Generally speaking, there were two theories available to explain the causes of epidemic disease. The first was contagionism, according to which a *contagium vivum* is transmitted from person to person. In order to prevent contagion, it made sense to isolate the sick. Because quarantines presupposed state power and the will to use it, this theory was appealing to autocratic regimes. According to the second theory - anticontagionism or miasmatic theory - the environment was pathogenic. The environment produced so-called *miasmata*, which were propagated through the air rather than by persons. Quarantine – considered to be a despotic measure - was not only seen as damaging commerce, but even as useless in countering epidemics. The only preventive against epidemic disease was progress of civilization. Sources of *miasma* included overcrowding, filth, dampness, faulty drainage, vicinity of graveyards, and unwholesome water and food. Against all this, quarantines were useless; instead, sanitary measures were called for. The debate between both camps was never just a medical one, but always a debate on state intervention as well. Hence, while the leading contagionists were high ranking military or navy officers, leading anticontagionists were known radicals or liberals, keen on sanitary reform.

The Ackerknecht thesis on the connection between political ideology and preventive policies has been highly influential, informing the work of many

¹⁰ Erwin Ackerknecht, 'Anticontagionism between 1821 and 1867', *Bulletin of the History of Medicine* 22 (1948), 562-593. Ackerknecht formulates the relationship in a careful, tentative way: 'It is typical that the ascendancy of anticontagionism coincided with the rise of liberalism, its decline with the victory of the reaction' (Ibid., 589).

medical historians.¹¹ The attraction of his presentation of things is in the clear and dichotomous nature of health policies: while autocratic regimes feel attracted to contagionist policies, liberal ones tend to adopt miasmatic theory, leading to sanitary policies. However, attractive as it may be, this image is too simplistic. The focus of Ackerknecht was on the interaction between experts and the state. He was thus ignoring society, implicitly suggesting that citizens passively accepted prophylactic measures once experts and the state were agreed.

The image Peter Baldwin is giving in his comparative study of the response to three contagious diseases (cholera, smallpox and syphilis) in four European countries (Germany, France, Great Britain and Sweden) is much more complex, precisely because he is including society.¹² He starts by establishing that the main challenge of any state is to find the proper balance between the interests of the community and those of individual citizens. Protecting society against the potential threats of infectious disease implies an infringement on the autonomy of individuals by definition. But quarantine measures, compulsory vaccination or regulation of prostitution need to be socially sanctioned and politically legitimized. Secondly, Baldwin argues that a strictly binary view of etiology (contagionism versus miasmatic theory) and prophylaxis (quarantinism versus sanitationism) is a distortion of reality. Local factors (whether natural or social), individual predisposition and contagion all played a role; they were mutually permeable. As a result, prophylactic strategies employed by European states have always been very different. Quarantine was not simply a matter of political authorities forcing measures on a passive population. More often than not, the authorities acted because they felt the pressure of public opinion in favor of a quick (and hopefully effective) solution. Very often, contagionism was the commonsense etiology of the average person, while environmentalism – with its

¹¹ See, for example, George Rosen, *A History of Public Health* (New York: MD Publishers, 1958); Gerd Göckenjan, *Kurieren und Staat machen. Gesundheit und Medizin in der bürgerlichen Welt* (Frankfurt: Suhrkamp, 1985); Richard Evans, *Death in Hamburg. Society and Politics in the Cholera Years* (Oxford: Oxford University Press, 1987); Sheldon Watts, *Epidemics and History. Disease, Power and Imperialism* (New Haven: Yale University Press, 1997); Christopher Hamlin, *Public Health and Social Justice. In the Age of Chadwick: Britain, 1800-1854* (Cambridge: Cambridge University Press, 1998).

¹² Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (Cambridge: Cambridge University Press, 1999).

attribution of disease to unseen factors and its bourgeois insistence on salubrity and personal hygiene - was learned behavior.¹³ In his book Baldwin seeks to explain why prophylactic responses to similar epidemiological challenges were so different across Europe. The answer is that responses were always dependent on specific contextual factors like political philosophy, geoepidemiological location, perceived risk, commercial interests and administrative capacity. Last but not least, preventive strategies against contagious disease went to the heart of the social contract.

This introduces the important dimension of public trust. Trust (in medical experts and in the state) has to be earned and it may be lost. It is by no means self-evident that citizens consult an academically trained physician when they fall ill, as it is not to be taken for granted that citizens accept any and all collective health measures taken by the state. In this chapter, I will be looking at three moments in the history of Dutch health care by focusing on health legislation, paying special attention to the position of medical experts. Regulation always implies an infringement on the autonomy of citizens. Medical legislation – and the public health measures based on it - can never be simply imposed top down on a passive society. For it to work, it is in need of political legitimation and public support. First, I will be looking at the consequences of national legislation on the medical professions that was introduced in 1865. Formally speaking, academic professionals had earned a monopoly of treatment. In reality however, they needed to work very hard to earn credibility and trust in a society that was hardly aware of the new situation. Next, I will analyze the debate following a petition to liberalize these laws in the 1910s. Public awareness of the implications of the laws of 1865 had grown, and an important group of citizens felt the need to contest it. To no avail, because the intervention state was on the rise. Finally, I will discuss the implications of current legislation, promulgated in the 1990s, and implying a liberalization of legislation. The welfare and intervention state was on the decline and citizens were increasingly defined as well-informed patient-consumers moving on a transparent market.

¹³ Baldwin, *Contagion and the State*, 536.

In the editorial in the *British Medical Journal* claimed that ‘Today, clinical reality (...) has to be reconciled with patients’ beliefs’. I would like to argue that this has always been the case. By looking at 150 years of medical legislation, I hope to show that there have always been doubts with regard to scientific experts. The only thing that seems to have changed is the scale on which the debates took place and the way arguments were articulated in public space. Over the course of time, the arena has widened, the number of stakeholders grown, and transparency increased.

Medical legislation of 1865: the liberal state

In 1865, Dutch parliament accepted four laws concerning the organization of the medical profession and the national health care system.¹⁴ This legislation was to frame and regulate Dutch health care for well over a century. The laws can be considered as part of the nation building process, in which the patchwork of local professional competence was replaced by one integrated system of national health care. In the early modern period there had been academic *doctores medicinae*, barber surgeons, apothecaries, oculists, herniotomists, *maître-dentistes*, cutters for the stone, medicine vendors, midwives and many others. Their training had been either at one of the European universities or in a local trade guild or through the practice of life; their legal competence had been either for a specific town or for the countryside, the army or the navy – or they were consulted because they just happened to be there.

Johan Rudolph Thorbecke (1798-1872), the Minister of Internal Affairs who had drafted the laws, was keen on creating one unified medical profession and one unified pharmaceutical profession; on raising medical, surgical, obstetrical and pharmaceutical teaching to academic levels; on making unauthorized medical practice (i.e., without academic title) liable to punishment and on introducing a National Health Inspectorate. Thorbecke expected the laws of 1865 would - together with the Law on Higher Education that was to follow in 1876 - raise the ‘level of study and competence’ of medical practitioners.¹⁵ Henceforth, the only possibility to become a physician or a pharmacist was to enrol in the medical or pharmaceutical programme at one of the four Dutch universities. For that reason, his legislation was welcomed by the Dutch Society for the Advancement of Medicine (NMG) and its counterpart, the Dutch Society for the Advancement of Pharmacy (NMP), as well as by leading people in the medical and pharmaceutical fields.

14. On nineteenth century Dutch medical legislation, see D. Cannegieter, *150 jaar gezondheidswet* (Assen: Van Gorcum en Comp., 1954).

15. *De onuitgegeven parlementaire redevoeringen van mr. J.R. Thorbecke*. Edited by G.G. van der Hoeven 6 vols. (Groningen: Wolters, 1900-1910) vol. 6, 336 (16 June 1871).

Academically trained medical professionals had fought hard for these laws to materialize, and expectations were that they had given the profession a social mandate – or even a monopoly. This, however, was hardly the case. At best, the Thorbecke laws had created a formal framework within which the medical profession could mature and grow. After 1865, there was much work to be done in terms of organizing trust and credibility. In this respect, little was to be expected from the state. It was all up to the profession itself. On the ground, physicians and pharmacists were working hard to make a living and survive. It was up to the leaders of the profession – the professors at university and the executives of the professional bodies – to create public trust. Let us take a closer look at the implication of the laws of 1865 for the social standing of pharmaceutical experts. Many believed the laws had granted pharmacists a monopoly in the field of the preparation and delivery of medicines.¹⁶ It was expected that the druggist-trade would gradually disappear, creating full professional opportunities for academic pharmacists. This, however, did not happen. Indeed, it had never even been the intention of Thorbecke.¹⁷ According to this liberal politician, the state should limit itself to supplying medical and pharmaceutical education of academic standards, and to the inspection of the professional conduct of the academic professions. Consumer choice or interprofessional relationships were, however, no concern of the state. The implication of this was that pharmacists had to earn credit and legitimacy with the public on their own. They had to define (and uphold) their academic identity and professional standards while at the same time fight a tough struggle for survival with many competitors in the medical marketplace, among them being dispensing physicians, druggists, quacks and the emerging pharmaceutical industry.

In drawing up his bills, Minister Thorbecke had been led by three guiding principles: first, he wanted to separate pharmacy (*artsenijbereidkunde*) from medicine; second, he wanted to enhance the position of pharmacists by allowing those who were qualified to study pharmacy at university and finally, he intended to limit the competence

16. See also: L. Ali Cohen, *Handboek der openbare gezondheidsregeling en der geneeskundige politie, met het oog op de behoeften en de wetgeving van Nederland* 2 vols. (Groningen: Wolters, 1869-1872) vol. 2, 625.

17. *De onuitgegeven parlementaire redevoeringen van mr. J.R. Thorbecke*. Edited by G.G. van der Hoeven 6 vols. (Groningen: Wolters, 1900-1910); see also J.R. Thorbecke, *Parlementaire redevoeringen* 6 vols. (Deventer: n.n., 1856-1870).

of druggists to the wholesale trade in medicines. Henceforth, whoever wanted to practise pharmacy had to meet stringent requirements. On top of that, there were strict laws regulating pharmaceutical practice. A Medical State Inspection had been installed to supervise compliance with the law. In 1876, the Law on Higher Education stipulated that pharmacy and toxicology were to become academic disciplines. Each of the four Dutch universities got its own chair for pharmacy and toxicology. Henceforth, the only road to pharmaceutical competence was through university.¹⁸

Expectations were that it would raise pharmacy to academic levels. There was, however, a long way to go before this situation would be realized: first, most pharmacists had not (yet) received an academic education and second, patients were hardly inclined to value the pharmacist more than other medicine vendors. Even after 1865, trust had to be organized. It was crucial to create a public image of pharmacists that fitted in with the high ideals of their professional leaders. The newly appointed professors of pharmacy devoted themselves to this task. In their inaugural address and in deontological publications they created a professional image of the pharmacist as a man of honour and science, who was entitled to a prominent position in the health care system.¹⁹

Willem Stoeder, one of the four newly appointed professors of pharmacy in Amsterdam, published a series of articles that was meant to contribute to a new representation of pharmacy and its practitioners. In this series, called 'Letters from the Capita', Stoeder developed a deontology for the modern pharmacist.²⁰ He pointed out that the pharmacist was no mere shopkeeper but a scientist, who should try to earn public esteem and patient trust. Being a man of honour, he had been called to solemn duties. Therefore, he should not tarnish his reputation by selling secret remedies or non-pharmaceutical commodities like paint, perfumery and the like. In this context, Stoeder contrasted the 'fairground attraction' of the shop-windows of Paris pharmacists with the

¹⁸ M. Groen, *Het wetenschappelijk onderwijs in Nederland van 1815 tot 1980* 9 vols. (Eindhoven: University of Technology, 1983-1987) vol. 1, 132-134; vol. 2, 54-56 and vol. 7, 65-68.

¹⁹ This image is still very much alive today. See, for example, A.I. Bierman, *Van artsenijmengkunde naar artsenijsbereidkunde. Ontwikkelingen van de Nederlandse farmacie in de negentiende eeuw* (Amsterdam: Rodopi, 1988).

²⁰ W. Stoeder, 'Brieven uit de hoofdstad', *Pharmaceutisch weekblad*, 11 December 1870; 15 January, 19 February and 19 March 1871; 19 and 26 November, 10 and 24 December 1871 and 14 January 1872.

‘tasteful simplicity and dignity’ of their German colleagues. Social success would be the logical result of scientific education and ethical elevation, Stoeder argued. The other newly appointed professors also tried to remove current prejudice about pharmacists by creating a new professional image. The traditional pharmacist had been a mere shop-keeper, who was subordinate to physicians because he acted on their instructions, written down in prescriptions. He was seen as a medicine mixer, as someone putting together active substances. The modern pharmacist, on the other hand, was a man of science; a man with independent views and the equal of physicians.

To what extent did pharmacists live up to the professional profile their scientific leaders had created? Evidence suggests the ‘field’ had less elevated thoughts on the subject. In order to become legally competent as a pharmacist, the state exam of pharmacy sufficed. Only very few pharmacists used the opportunity to take their doctoral degree of pharmacy.²¹ Out of 130 persons who had become pharmacists since 1876, only three had valued the doctorate of pharmacy enough to take their degree.²² Pharmacists did not seem to consider the doctorate a prerequisite for the practice of pharmacy or, for that matter, as a means to increase their social prestige. Although the Medical Laws of 1865 had considerably raised requirements for entering the profession, the material conditions and social prestige of pharmacists had not improved proportionally. Among other things, this was caused by the enormous expansion of the pharmaceutical industry, leading to the replacement of many galenic remedies by chemical ones.²³ Patient demand for manually prepared galenic remedies was declining, whereas manufactured synthetic medicines became a booming business. Secret remedies and *spécialités* were introduced to the market in increasing numbers and varieties – which is to say nothing of the competition by physicians and druggists. Mutual infringements by physicians, pharmacists and druggists on each others professional domain abounded, and quackery was thriving.

²¹ M.J. van Lieburg, ‘De medische promoties aan de Nederlandse universiteiten (1815-1899)’, *Batavia academica* 5 (1987), 1-17 esp. table 2; see also: J.P. Fockema Andreae e.a., *De Utrechtsche universiteit 1815-1936* 2 vols. (Utrecht: Oosthoek, 1936) vol. 2, 344.

²² J.W. Gunning, *Een blik op de toekomst der pharmacie in Nederland* (’s-Gravenhage: De Gebroeders Van Cleef, 1887), 3.

²³ On the repercussions this trend had for Dutch pharmacists, see Thijs Rinsema, ‘Brocades & Stheeman. Van apotheker-fabrikant tot farmaceutische industrie’, in: Frank Huisman and Rein Vos (eds), *Farmacie: wetenschap, industrie en markt. De Nederlandse farmaceutische industrie in de negentiende en twintigste eeuw*. Special issue of *Gewina* 22 (1999), 23-33.

Long after the Medical Laws of Thorbecke had come into force in 1865, pharmacists were being warned by the Medical State Inspection or even fined in court for dispensing medicines without prescription, for the sale of secret remedies, for the unauthorized practice of medicine, for not complying with the provisions regarding stocks, pharmaceutical weights and scales, for having unauthorized locums in case of absence or for giving the key to the poison cabinet to unauthorized persons. Although it is very difficult to establish the scale on which these violations took place, it can be established that the professional consciousness of the pharmacists in the field had not developed as their leaders would have wished. In 1873, the Medical State Inspectorate established the fact that secret and other remedies are being sold by unauthorized persons 'almost everywhere'.²⁴ In the annual reports, mention is being made of the sale of a whole range of medicines by pharmacists' assistants, veterinarians, merchants, housewives, a clergyman, a photographic dealer, a saddler, an innkeeper - in short: by everyone.

In the liberal political climate of the late nineteenth century, pharmacists had to steer a middle course between the demands of science and those of the public. Whereas science was held in high esteem at modern university, the public had different standards. This made the legislation of the years 1865 and 1876 highly Janus-faced: while pharmacy had become a scientific discipline, the profession had hardly won in terms of credibility and social acceptance. The support of the patient was not won by the image of the pharmacist as a man of science and high virtue, simply because it was unaware of these public relations campaigns. Pharmaceutical experts and the general public were living in different worlds. Many patients preferred the remedies of unauthorized medicine vendors to those of academic pharmacists. Maybe the best way to look at the laws of 1865 is to regard them as an ideal and a blueprint - drafted and supported by the medical and political elite – of which Dutch citizens were hardly aware. During the decades following legislation, this awareness was gradually growing. This became clear in 1913, when a petition was submitted to Dutch Parliament, arguing for a liberalization of the legislation of 1865. It was supported by almost 8000 citizens.

²⁴ *Verslag aan den koning van de bevindingen en handelingen van het Geneeskundig Staatstoezigt in het jaar 1873* (s-Gravenhage: Van Weelden en Mingelen, 1874), 23.

A petition in 1913: the rise of the intervention state

In 1913, three Dutch lawyers submitted a petition to Dutch parliament, in which they requested a liberalization of the 1865 legislation.²⁵ They included Samuel van Houten (former Minister of the Interior), Joost Adriaan van Hamel (professor of criminal law at the University of Amsterdam) and Rudolph Otto van Holthe tot Echten (councillor of the court of justice in The Hague).²⁶ Because they had serious doubts about the competence of physicians, they disputed their exclusive right to medical intervention. Medicine and health care should serve the interests of the patient rather than those of the physician, they argued. The petition caused much commotion in Dutch society: as many as 7700 people expressed their approval of its contents, while it prompted Dutch government to ask the Central Health Council and two State Committees for formal advice on the issue.²⁷ During the years in which the petition was under discussion many articles, brochures and pamphlets were written, both in favour of it and against it.

The three lawyers decided not to be distracted by complex epistemological matters, but to focus on the legal dimensions of the issue instead. Thus, they established the fact that the law of 1865 was violated on a daily basis, which they considered to be an infraction of their sense of justice. At the time, it had been the intention to put an end to the confusing patchwork of training facilities and legal competences in medicine by allowing only

²⁵ National Archive The Hague (NA), Archief van de Tweede Kamer der Staten-Generaal, 1815-1945 (2.02.22), inv.nr. 1252. The petition was registered as number 39 by the Committee for Petitions: *Handelingen van de Tweede Kamer 1913/1914*, 78. In the same period, a very similar petition was submitted by the Comité (later on: Nationale Vereeniging) tot Propaganda voor Wijziging der Wetten betreffende de Uitoefening der Geneeskunst: NA The Hague, archief Tweede Kamer 1815-1945, inv.nr. 1252 (72 en 210) and 1253 (348).

²⁶ Cf. R.O. van Holthe tot Echten, *De vrije uitoefening der geneeskunst of het artsenmonopolie?* (Den Haag 1913) and Idem, 'Het Nederlandsche tijdschrift voor geneeskunde over het artsenmonopolie en de geneesvrijheid', *Het toekomstig leven* 18 (1914) 301-308, 321-326, 337-343 and 351-357; J.A. van Hamel (pro) and E.C. van Leersum (contra), *Vrije uitoefening van de geneeskunde*, verschenen in de serie *Pro en contra betreffende vraagstukken van algemeen belang* (Baarn 1914).

²⁷ For a first batch of adhesions to the petition nr. 39, see NA The Hague, archief Tweede Kamer 1815-1945, inv.nr. 1254, 1255 and 1518.

academically trained physicians to practice medicine. However, this goal had not been accomplished – quite the contrary. The High Council of Justice (*Hoge Raad*) had had to step in quite often to issue jurisprudence in interpretation of the law.²⁸ A situation of ‘total legal insecurity’ had come into being. The three lawyers proposed to end this situation by adapting legislation to current practice. Secondly, the three claimed that the law of 1865 denied citizens the right to decide on their own fate. They wondered what vital state interests were threatened when irregular healers came to the rescue of patients, and they called for legal guarantees ensuring the freedom of choice of citizens in case of illness.²⁹

As long as it had not been proven that health matters were better served by physicians than by others; that freedom of treatment would cause damage to public health and that legislation could be an effective weapon in the battle against irregular practice, it was impossible to maintain the monopoly of treatment for physicians. The three lawyers called for an amendment of the 1865 legislation to allow patients to seek treatment from the healer of their choice. The state should limit itself to regulating the training and examination of aspirants to the profession. Further, the state should take legal action against conscious deceit of the public and against any speculation on its ignorance. Finally, the petitioners wanted *all* malpractice to be prosecuted, regardless of whether it had been committed by physicians or irregular healers. What they called for, in short, was a fair political balance between narrow professional interests and the general interest of citizens.

During the parliamentary debates in January 1914 feelings were mixed.³⁰ Some MP’s felt that implementing the petition would move the health care system in a dangerous direction, pointing to the evils done by quacks. Others argued that as a matter

²⁸ See, for example, *Weekblad van het recht* 48 (1886), 5304.1; *Ibidem* 73 (1911), 9240.3. In most cases, it proved impossible to collect the evidence, because former patients refused to testify, or because the law was not clear.

²⁹ Van Holthe tot Echten: ‘Why should the State protect *my* health, *my* life, when my health and my life are in danger only due to *my own will and my own doing?*: *De vrije uitoefening*, 49 [italics in the original]. Van Hamel argued that current legislation was lacking in fairness, responsibility and freedom: *Pro en contra vrije uitoefening van de geneeskunde*, 20.

³⁰ *Handelingen Tweede Kamer 1913/14*, 1450-1451, 1454, 1464 en 1472-1473; *Ibidem*, bijlage A, hfst. 5, par. 12, 3e afd., 6; *Ibidem*, par. 13, 3e afd., 37.

of principle, the state did not have the right to restrict the freedom of choice of citizens in a matter that was as personal as individual health. For the time being, Dutch government withheld its point of view. The minister in charge was Prime Minister Pieter Wilhelm Adriaan Cort van der Linden.³¹ Being a lawyer and a liberal, he thought that the issue was both fundamental and complex. Although he granted that the state should not act as guardian vis-à-vis its citizens, he thought it unacceptable when a liberalisation of current legislation would endanger public health. He decided to consult the Central Health Council, the government's supreme advisory board in health matters.

In its report, the Health Council confirmed that illegal medical practice was indeed thriving.³² It could not be denied that the law's major objective had not been accomplished. Indeed, according to the Health Council the law of 1865 was 'nearly a dead letter'. The Council was facing a thorny problem: on the one hand, helping fellow human beings in distress should not be liable to prosecution and punishment. There was, however, ample evidence of irregular healers causing damage to people's health. Therefore, the Health Council advised to organize an impartial investigation of healing systems hitherto unexplained by science. Should it turn out that inexplicable forces or faculties existed, the government should seriously consider taking steps in order to alleviate human suffering. In that case, many legislative changes were called for.

In line with this advice, two State Committees were established. They were asked to look into the legal and the medical dimensions of the matter. The Legal State Committee was made up of six lawyers, with Van Houten serving as chair.³³ Very soon, the committee presented its advice, in the form of a proposal for an amendment of the law.³⁴ The Van Houten Committee proposed to introduce the principle of 'limited

³¹ On Cort van der Linden, see Johan den Hertog, *Cort van der Linden (1846-1935). Minister-president in oorlogstijd* (Amsterdam: Boom, 2008).

³² NA The Hague, Ministerie van BiZa, Volksgezondheid en Armwezen 1910-1918, inv.nr. 417, 23 December 1916. The report is attached as Supplement I to the *Verslag van de [juridische] Staatscommissie benoemd bij K.B. van 31 juli 1917 no. 39* (z.p. z.j.).

³³ NA The Hague, Afdeling Volksgezondheid en Armwezen van het Ministerie van Binnenlandse Zaken, 1910-1918 (2.04.54) inv.nr. 417. Apart from the three H's members included: jhr.mr J.W.M. Bosch van Oud-Amelisweerd, president of the district court of Utrecht and a member of the Senate; mr D. Simons, professor of criminal law in Utrecht and mr B. Edersheim, attorney in The Hague.

³⁴ *Verslag van de [juridische] Staatscommissie benoemd bij K.B. van 31 juli 1917 no. 39* (z.p. z.j.).

exclusive competence.’ It wanted everybody offering medical help to register with the health inspector of their district. Healers were expected to specify the sort of treatment they were offering. Secondly, so-called ‘restricted interventions’ were defined, in which only regular practitioners should be permitted to engage - notably surgery, obstetrics, the prescription of strong medication and the treatment of venereal disease. Finally, everybody would henceforth be held legally liable for the effects of a treatment. With its proposal, the committee hoped to dispel three objections against existing legislation: the proposed bill would be more in line with people’s overall sense of justice because it fitted better with existing realities in the health care system; it would honour the principle of patient autonomy and self-determination and finally, it would encourage irregular healers to use their gifts in the interests of mankind.

Cornelis Pekelharing, professor of pathology in Utrecht, chaired the Medical State Committee, which consisted of medical professionals.³⁵ It had been assigned to study the value and effects of unorthodox healing methods. The committee invited ‘all who believe they qualify’ to come to Utrecht, allowing the committee to assess their therapies. Several healers contacted the committee, bringing along one or more patients. In total, 96 patients were prepared to cooperate. The committee concluded that the healers made poor or even wrong diagnoses; that the phenomena and methods they worked with were well-known to physicists and physiologists (and could therefore not be attributed to unknown, mysterious forces), and that their treatment results were quite limited and in some cases even negative. Having studied the potential merits of magnetism, Christian Science, somnambulism, herbal medicine, homeopathy and naturopathy, the committee concluded that there was no evidence of healing methods leading to new or surprising cures. Its final conclusion was that the results ‘in no way substantiate the view of those who feel that it is in the interest of mankind to recommend the practice of medicine without scientific

³⁵ *Rapport van de [medische] Staatscommissie benoemd bij K.B. 31 juli 1917* (Den Haag z.j.). Members of the committee included: prof. C.A. Pekelharing (chair), Storm van Leeuwen (secretary), prof. A.A. Hijmans v.d. Bergh, prof. Laméris, dr L. Polak Daniels, dr D. Schermers, dr Schuurmans Stekhoven, dr M.P. van Spanje, prof. Treub, prof. J. Wertheim Salomonson, prof. C. Winkler and prof. W.P.C. Zee-man.

training'.³⁶ The law of 1865 should remain in force - a conclusion that was warmly welcomed by the medical establishment.³⁷

Initially, the medical community had not taken the petition of the three lawyers very seriously.³⁸ However, when it became clear that the prime minister was prepared to give it some serious thought, the need for a clear collective response was felt. The editorial board of the Dutch Journal of Medicine (*Nederlandsch Tijdschrift voor Geneeskunde*), decided to devote a special issue to the matter.³⁹ This issue, entitled 'Medical monopoly and freedom of healing' (*Artsenmonopolie en geneesvrijheid*), contained 26 contributions written by 23 authors. Space forbids to go into the arguments put forward by them in any detail, but overall they claimed that science was superior to intuition, and that healing practices should always be rooted in science. 'Science' was used as a demarcation criterion between regular and irregular healers. Although this seemed to be a clear criterion, it merely led to additional questions, such as: how should science be defined? And: how does scientific knowledge inform medical practice? In his introduction to the special issue, Gerard van Rijnberk – professor of physiology and editor-in-chief – made an attempt. Medicine, he argued, included 'all knowledge, tested by experience and experiment, of the material structure, the workings and the defects of the human body, as it is gathered through the ages and taught at university'.⁴⁰ Several essays looked into the basic characteristics of science. While some emphasised the open character of medicine, others felt that its defining characteristics were to be found in system and knowledge. Either way, medical science was considered superior to lay knowledge. Van Holthe tot Echten, one of the three lawyers, summarized the reasoning

³⁶ *Ibidem*, 33.

³⁷ See, for example, *Vox medicorum*, 2 April and 28 May 1919.

³⁸ The Health committee of Gorinchem was an exception to this. Having realized the potential threat from the beginning, it submitted a counter petition to Parliament in November 1913, in which it urged not to take the petition by Van Houten c.s. in consideration: NA The Hague, archief Tweede Kamer 1815-1945, inv.nr. 1252 (138). The Health committees of Oldenzaal and Franeker pledged their adhesion: *Ibidem*, inv.nr. 1518.

³⁹ *Nederlandsch tijdschrift voor geneeskunde* 58 (1914) IB, 1846-2044 (30 May). All further reference to the *NTvG* are to this special issue, unless otherwise stated.

⁴⁰ Van Rijnberk, 'Een woord', 1848.

of physicians as follows: ‘having knowledge is better than having no knowledge at all and we are the ones who own medical knowledge’.⁴¹

Because the petition touched on the boundaries of law and medicine, it was impossible to settle the dispute with arguments derived from either of these disciplines. In the debate on freedom of healing the protagonists could only fall back on general cultural notions of body and mind and health and illness. It was the very general dimension of the issue that constituted the petition’s broad appeal from the outset. That was why 7,700 individuals felt the need to support it by signing and that was why there was such extensive coverage in the general press.⁴² Still, it is important to establish that the petition movement was no medical countermovement, and did not intend to be. Although the content of the petition specifically reflected a critique of medicine, it was aimed at an overall mentality that merely engaged with the material, while disregarding the immaterial, the spiritual, the intuitive and the mystical.⁴³ The petition movement, it seems, was primarily motivated by epistemological doubt. These wider implications of the petition were not lost on the Central Health Council. In its advice to the Minister, it indicated that the subject matter was ‘highly complex’. Therefore, the Health Council considered itself authorized to judge only to a limited degree.⁴⁴ It was up to politics to weigh the many contradictory feelings, considerations and arguments involved.

The petition had a political dimension in that it raised the issue of the relationship between state and society, and of the role that experts should play.⁴⁵ There was perhaps

⁴¹ Van Holthe tot Echten, ‘Het Nederlandsche tijdschrift voor geneeskunde’, 326.

⁴² See, for example, *Nieuwe Rotterdamsche Courant*, 27 September 1913; *De Telegraaf*, 11 October 1913; Hector Treub, ‘Vrije uitoefening der geneeskunst’, *Vragen des tijds* 39 (1913) I, 155-172; A.W. van Renterghem, ‘De vrije uitoefening der geneeskunst in Nederland’, *De Gids* 78 (1914) II, 482-513 and III, 74-103.

⁴³ This trend was observed by contemporaries as well. See, for example, B.H.C.K. van der Wijck, ‘De wetenschappen’ in: Smisjaert ed., *Nederland*, 261-298 on 264; *Vox medicorum*, 31 October 1917.

⁴⁴ *Verslag van de [juridische] Staatscommissie*, 5 (supplement I).

⁴⁵ Cf. an observation made by Van Holthe tot Echten: ‘The matter cannot be solved using purely medical arguments; rather, what we need are legal and political arguments: ‘NTvG’, 303.

no one who could defend the petition's political dimension with more authority than Van Houten.⁴⁶ As a down-to-earth rationalist he never engaged in the humanitarian-idealist experiments of his time. Still, he was very committed to the 'liberty' and the 'natural rights' of the patient.⁴⁷ He considered Thorbecke's legislation as an 'unauthorised interference by state authority' and felt that punishing unqualified healers was indefensible because the initiative in consulting them lay with patients. Moreover, Van Houten – who had great confidence in science – saw the physicians' passionate response to the petition as a sign of insecurity concerning their own therapeutic powers. When these were indeed so limited, there could be no good reason to protect them, using the force of law.

Although Van Houten and Prime Minister Cort van der Linden had rather different views on liberalism and the role of the state, they tended to agree on the issue of freedom of healing. A liberalization of the 1865 legislation seemed within reach. However, things worked out differently. Much time had passed since the submission of the petition in 1913. When the State Committees finally presented their reports, it was too late for Cort van der Linden to act on them. In the elections of 1918 – the first after the introduction of general male suffrage - the liberals suffered a very considerable loss. Their number of seats in parliament dropped from 40 to 15. A new confessional cabinet, led by the Catholic Charles Ruys de Beerenbrouck, came into office.⁴⁸ The new cabinet felt no need to spend much time on the issue of liberalizing medical legislation. Precisely in the area of social legislation and state intervention the Ruys de Beerenbrouck cabinet was very ambitious.⁴⁹ The 1865 medical laws simply remained in place and the issue disappeared

⁴⁶ On Van Houten, see G.M. Bos, Mr. S. van Houten. Analyse van zijn denkbeelden, voorafgegaan door een schets van zijn leven (Purmerend 1952); Siep Stuurman, *Wacht op onze daden. Het liberalisme en de vernieuwing van de Nederlandse staat* (Amsterdam: Bakker, 1992) chapter 5.

⁴⁷ S. van Houten, *Staatkundige brieven*, 28 November 1913. For the same reasons, he was opposed to forced vaccination: NA The Hague, papieren van S. van Houten (2.21.026.06), inv.nr. 38.

⁴⁸ M.J.L.A. Stassen, *Charles Ruys de Beerenbrouck. Edelman-staatsman 1873-1936* (Maastricht 2000).

⁴⁹ Stassen, *Charles Ruys de Beerenbrouck*, 51-59. Ruys, who would be the leader of three cabinets between 1918 and 1933, is characterized by his political biographer as 'the promoter of the social state': *Ibidem*, 197.

from the political agenda. It may be speculated that the young nation state felt no need to deconstruct institutions that had just been put in place at a moment when many things were in flux. After all the rhetorical fervour of the five preceding years, this outcome may be called an anticlimax.

Individualizing health care in 1993: the neo-liberal state

Eighty years after the petition was submitted, its major tenets proved politically convincing after all. In 1993, the Law on Professions in Individual Health Care (Wet BIG) was enacted. In many respects this new law reflected the proposals that had been advanced by the Van Houten Committee. The law's two underlying principles were freedom and protection: patients should henceforth be completely free in the choice of their care provider and they should be protected against professionals' negligence or deceit. This double objective was to be achieved by abolishing the prohibition on the practice of medicine by alternative healers, by setting up a register for the protection of training and title, by formulating so-called 'restricted interventions' and by amending criminal law and medical disciplinary rules.⁵⁰ The new legislation was almost a one on one implementation of the proposals put forward by the three lawyers in 1913. What had happened in the meantime?

Over the course of the twentieth century, the cultural authority of medicine had risen sharply in the Netherlands – as in the wider western world - due to dramatic improvements in the field of diagnostics and therapeutics. Penicillin, kidney dialysis, radiotherapy, polio vaccination, open heart surgery and even heart transplant and the CAT scan are among the breakthroughs of medicine.⁵¹ As a result, average life expectancy at birth almost doubled in less than a century. During the postwar years, science was held in great social esteem. There was a general trust that the world could be

⁵⁰ For the details, see *De Wet BIG en alternatieve geneeswijzen* (Amersfoort 1992); A.P.M. Bersee and W.H.M.A. Pluimakers, *De wet BIG. De betekenis van de nieuwe wetgeving voor beroepsbeoefenaren in de gezondheidszorg* (Lelystad 1993); R.M.J. Schepers and H.E.G.M. Hermans, 'The medical profession and alternative medicine in the Netherlands: its history and recent developments', *Social science and medicine* 48 (1999) 343-351. Restricted interventions included surgery, anaesthesia and the use of radioactive material.

made safe and prosperous by building on science. In the 1960s and 70s, however, people began to doubt science for the first time, when it became clear that there was another side to science like pollution, mass destruction and iatrogenic mistakes. The notion of progress through science was cast in doubt, while the use of scientific experts was criticized by intellectuals like Thomas McKeown, Michel Foucault, Ivan Illich and David Armstrong.⁵² The 1980s and 90s witnessed the crisis of the welfare state.⁵³ During these decades, it became fully clear that governmental care from the cradle to the grave was no longer financially feasible. In the Netherlands, drastic cutbacks were realized. The state withdrew itself from many domains, leaving them to the dynamics of the market. In the domain of health care this implied that medical professionals were replaced by health managers, while discretionary competence was replaced by third party accountability.⁵⁴ Similar trends took place in the rest of the Western world, with the British Prime Minister Margaret Thatcher and the American President Ronald Reagan as the embodiment of the global neoliberal revolution, that also affected health care systems.

In this cultural climate, the legislator proved to be sensitive to the criticism, taking steps to protect patients against the nearly unlimited power of physicians. The law of 1993 can be seen as the culmination of a broad liberalizing movement that began to unfold in the late 1960s and led to a legislative boom aimed at regulating the legal position of patients *vis-à-vis* medical experts. The doctor-patient relationship was regulated in a so-called medical treatment agreement between the patient and the care provider. Henceforth, the client was invited to select the care provider of his choice, with whom he would enter into a businesslike relationship. The client could discontinue a treatment agreement at any time, without reason given. Care providers were henceforth

⁵¹ James LeFanu, *The Rise and Fall of Modern Medicine* (London: Abascus, 2011).

⁵² Thomas McKeown, *The Role of Medicine. Dream, Mirage or Nemesis?* (London: Nuffield Provincial Trust, 1976); Michel Foucault, *Naissance de la clinique. Une archéologie du regard médical* (Paris : Presses universitaires de France, 1963); Ivan Illich, *Medical Nemesis. The Expropriation of Health* (London : Calder and Boyars, 1975); David Armstrong, *The Political Anatomy of the Body* (Cambridge: Cambridge University Press, 1983). See also Jerome Ravetz, *Scientific Knowledge and its Social Problems* (Oxford: Oxford University Press, 1971).

⁵³ Frank Ankersmit en Leo Klinkers eds., *De tien plagen van de staat. De bedrijfsmatige overheid gewogen* (Amsterdam: Van Gennep, z.j. [2008]).

⁵⁴ Theodore Porter, *Trust in Numbers. The Pursuit of Objectivity in Science and Public Live* (Princeton: Princeton University Press, 1995); Stefan Timmermans and Marc Berg, *The Gold Standard. The Challenge of Evidence-Based Medicine and Standardization in Health Care* (Philadelphia: Temple University Press, 2003).

required to inform patients on diagnosis, prognosis and therapy and they were not allowed to act without the patient's consent. Finally, care providers could be held liable for their treatment, according to civil law, criminal law and disciplinary rules. Henceforth, the patient was considered to be a well-informed citizen, moving on a transparent health market. The citizen-patient had grown into a consumer-patient.⁵⁵

Many physicians deplored this 'juridicalization' of the health care system. They felt that medical intervention cannot be reduced to a legal contract. Indeed the patient's position has been strengthened, but it is questionable whether this juridicalization offers a solution to the paradox of modern life. The irony of living in a democratic knowledge-society is that we are no longer capable of shaping an opinion on our own, while at the same time we are constantly challenged to do so. How, for instance, should we evaluate the decision of Dutch TV-personality Sylvia Millecam, who sought treatment for her breast cancer with a faith healer called Jomanda? When the lump she felt in her breast turned out to be an operable tumor, Millecam decided not to visit an oncological surgeon. The faith healer she consulted instead denied that she was suffering from breast cancer. It remained untreated, the tumor grew and two years later Millecam died.

Dutch Parliament used her death as an occasion to reopen the debate on the 1993 Law, and one lawyer indicated that he wanted to bring Jomanda to trial. Should patients be protected against faith healers by law and government? Or should the principles of bodily autonomy and self-determination be applied? If modern secular individuals are expected to make well-informed decisions, how can they be sure that they fully oversee all the consequences of their actions? And there is the issue of liability in case something goes wrong. Although the new legislation seems to provide a clear frame, in everyday care practice the new law can prove to be quite hard to work with. For instance, the 1993 Law on Professions contains no explicit norms as to the meaning of notions like 'professional standard' or 'care of a good care provider'. In case of a dispute on a treatment between doctor and patient, the judge acts as the arbiter who is expected to formulate an expert legal opinion on what constitutes expert medical action. It is one of

⁵⁵ For the repercussions for the doctor patient relationship, see Edward Shorter, *Bedside Manners. The Troubled History of Doctors and Patients* (New York: Simon and Schuster, 1985).

the ironies of history that the ‘liberation of the patient’ goes hand in hand with a call for even more expertise.

Epilogue: reorganizing trust

It has been argued that the more people know about the workings of science and technology, the more realistic their expectations with regard to the problem solving capabilities of experts become.⁵⁶ In other words: the more information about the workings of science is available, the more people realize that experts are fallible. In this sense, The ‘crisis of 2009’ can be understood as part of a process of increasing transparency and increasing reciprocity between state and society; a process that has been taking place since the late nineteenth century. In many ways, the HPV debate reflects a broader challenge to public health, bringing classic public health to a political crossroads.⁵⁷ In the late twentieth century, Western societies witnessed a transformation from the intervention state to the neoliberal state. In the process, citizens came to be defined differently.⁵⁸ Whereas over the course of the twentieth century health care had become a matter for the state and access to it a civil right, towards the end of the century, citizens came to be held responsible for their own welfare and health. They were invited to behave as informed consumers, moving in a (supposedly) transparent knowledge society. In the process, citizens learned to be critical – or even distrust - both experts and the state.

The so-called new public health is related to the rise of risk calculation and management as ways of dealing with growing uncertainties in technologically advanced and deregulated liberal societies.⁵⁹ Considering everybody at any moment as a potential patient, predictive and preventive medicine focuses on risk profiles in relation to factors

⁵⁶ Robert Braam, ‘Voorwoord’ in: Frans van Lunteren, Bert Theunissen en Rienk Vermij eds., *De opmars van deskundigen. Souffleurs van de samenleving* (Amsterdam: Amsterdam University Press, 2002) 7.

⁵⁷ Wailoo e.a. eds., *Three Shots*, 299.

⁵⁸ Frank Huisman and Harry Oosterhuis eds., *Health and Citizenship: Political Cultures of Health in Britain, Germany and the Low Countries* (forthcoming, Pickering & Chatto). See also Evelien Tonkens, *Mondige burgers, getemde professionals. Marktwerking en professionaliteit in de publieke sector* (Amsterdam: Van Gennep, 2008) .

⁵⁹ Oosterhuis and Huisman, ‘The Politics of Health and Citizenship: Historical and Contemporary Perspectives’ in Huisman and Oosterhuis eds., *Health and Citizenship*.

such as age, class, occupation, gender, lifestyle and consumption. Interventions take diverse forms such as periodic check-ups and genetic testing of groups at risk for specific illnesses, public education about 'risky' lifestyles and skills development.⁶⁰ The new public health is all about providing individuals with information about their health status and possible health risks, so that they can act to reduce those risks. At the same time the risk discourse does not provide certainty. Scientific and expert knowledge on health risks is intrinsically provisional. Also, it gives cause for disagreement, not only among experts, but between expert and popular views as well. Medical information is increasingly located in the free market, where competition and various players with different interests are involved: medical researchers, public-health experts, clinicians, epidemiologists, the pharmaceutical industry and patient organisations.

Have we lost trust in experts? Or did we just gain awareness about the way expertise is constructed? How should we (re)organize trust in scientific experts in our neo-liberal, postmodern era? In conclusion, I would like to put forward three models, suggested by Ted Porter, Wiebe Bijker and Roger Pielke. In his book *Trust in Numbers: the Pursuit of Objectivity in Science and Public Life* Ted Porter is presenting an analytical distinction between 'disciplinary objectivity' and 'mechanical objectivity'.⁶¹ I would like to suggest that they may be in fact concepts describing a temporal development. The first concept refers to consensus among professional experts; it is the kind of consensus that is beyond doubt because laypeople put trust in experts, granting them a social mandate to engage in whatever activity they have been trained into. The explanations given by the *gentleman-physician* tends to be personal and clinical, providing reassurance and consolation to a bewildered public. Whenever consensus among experts cannot be reached or does not satisfy outsiders (or is even distrusted by them), there is a need for mechanical objectivity. This is formalized, bureaucratic knowledge with a seemingly self-evident character, meant to satisfy the general public. Evidence-Based Medicine may be considered as a good example of mechanical objectivity, providing the scientific answer to a moral demand for impartiality and fairness in a democratic mass-society.

⁶⁰ Ulrich Beck, *Risk Society: Towards a New Modernity* (London: Sage, 1992); A.R. Petersen and D. Lupton, *The New Public Health. Health and Self in the Age of Risk* (Sydney: Allen and Unwin; London: Sage, 1996).

⁶¹ Porter, *Trust in Numbers*.

In *The Paradox of Scientific Authority. The Role of Scientific Advice in Democracies* Wiebe Bijker, Roland Bal and Ruud Hendriks examine the way in which the Health Council – the highest advisory body in health issues in the Netherlands – makes an effort in giving authoritative advice to the Minister of Health, even in complex matters.⁶² By introducing a spatial distinction between backstage and frontstage, they show how the scientific advisory committees of the Health Council succeed in speaking with an authoritative voice, being fully aware that their advice has been constructed. Indeed, it is the negotiated consensus reached between experts in the field. Although the dichotomy between frontstage and backstage may be rather artificial, upholding the paradox seems an important attempt to solve the tension between the inherent uncertainty of scientific knowledge and the societal need for scientific authority.

The suggestion with the most radical implications is made by Roger Pielke, in *The Honest Broker. Making Sense of Science in Policy and Politics*.⁶³ Whereas in the model proposed by Bijker, scientific experts are the ones who decide on the state of scientific expertise and about what should be done in the public domain, Pielke is including all of us. The defining characteristic of the honest broker of policy alternatives is that it engages in decision-making by clarifying and, at times, expanding the scope of choice available to decision-makers, in a way that allows the decision-maker to reduce choice based on his or her own preferences and values. In this model, the scientific expert is supplying scenarios, leaving it up to decision-makers to decide on the best scenario in a given situation. In a way, one could say, the tension between disciplinary and mechanical objectivity as well as between backstage and frontstage has evaporated in this model. The problem with this model may be that it is not fully clear how to operationalize or even institutionalize it, to prevent science from becoming politicized and paralyzed.

Over the course of the twentieth century, ‘the black box’ of science and technology has been opened and the ‘silent majority’ has gained a voice. Since we are living in a democratic knowledge society, this can be evaluated as a good thing. However, we may wonder if things haven’t gotten out of hand, now that the corrosion of

⁶² Wiebe Bijker, Roland Bal and Ruud Hendriks, *The Paradox of Scientific Authority. The Role of Scientific Advice in Democracies* (Cambridge: MIT Press, 2009).

⁶³ Pielke, *The Honest Broker*.

public trust in scientific expertise is a fact – as is shown by the vaccination crisis of 2009. Because no society can afford the luxury of living without moral guidelines and social cohesion, it is time to reflect the foundations of our health care system.