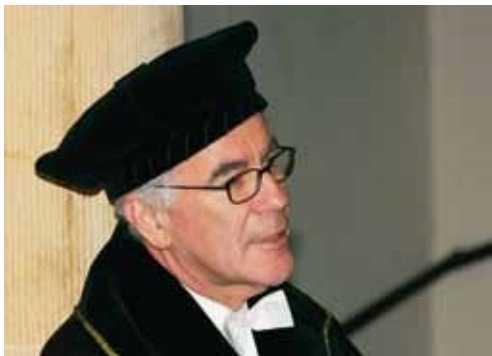


The Neuro Calvinist who Discovered the 'Homo Lobe'

Dick Swaab and the Netherlands Brain Bank

Brain researcher Dick Swaab (b.1944), the 'homo lobe' man and founder in 1985 of the Netherlands Brain Bank, recently retired from his post as professor of neurobiology at the University of Amsterdam. But there was no question of giving up working; the following morning he went about his business again as usual. His research group continues in full swing, he carries on lecturing and, until the end of 2014, he is still *jus promovendi* (in charge of postgraduate students) and will continue to hand out the appropriate doctoral degrees. He will also retain his professorial chairs in China and at Stanford University in California.



Dick Swaab, (1944 -).

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In his valedictory lecture Swaab took advantage of the opportunity to broach a subject that has fascinated him for a long time: death. Both the medical profession and the public need to be better prepared for this. He is disturbed by the fact that families only begin to think about euthanasia once a parent is suffering from dementia, without having given it any serious consideration at an earlier stage. Alzheimer's patients are often no longer capable of making an independent decision to end their life. According to Swaab, their wishes should be made known as soon as the process of dementia begins, otherwise it is simply too

late. Moreover, the patient should discuss the matter first with his or her doctor to find out how s/he feels about it. That avoids problems. During his valedictory symposium, Swaab ran a course with colleagues entitled *Dead common*. For his part Swaab took the plunge a long time ago: 'If I have to go down the Alzheimer's path, I'm getting out.'

Apart from Alzheimer's, Swaab also undertakes research into depression, schizophrenia and sexual differentiation in relation to psychiatric disturbances. Why are men more frequently troubled by ADHD and autism, whereas women are more afflicted by depression and eating disorders? Swaab has little time for the belief that individuals can take care of themselves, considering that the influence of social environment and upbringing, will-power and a sense of responsibility is very limited. The title of the book he published last October, *We are our brain*, leaves no room for misunderstandings. 'The only environment that counts', he said in an interview, 'is the chemical environment in the womb'.

In 1989 Swaab caused a stir on the international scene with his announcement that the brains of homosexual men differ from those of heterosexuals. One area – quickly dubbed 'the homo lobe' by the media, although it is only a minute part of the hypothalamus – is larger in homosexuals. Feminists and sexologists fell over each other to state their aversion to this repulsive idea, the university considered it wise to provide surveillance for Swaab's lectures and there were even threatening letters. At the same time transsexuals, in whom the male and female areas of the brain seem to have been reversed, rejoiced in the fact that it was not a perverted upbringing or a weak character that was the 'culprit', but testosterone asserting its influence in the womb. Twenty years after the consternation over the homo lobe a number of research studies have confirmed Swaab's findings unequivocally: it is difficult to overestimate the influence of sex hormones on brain development. It occurs before birth, and goes on into the first couple of years of life. 'Neuro Calvinist' Swaab refers to it as 'biological predestination'.

In 1985 Swaab established the Brain Bank. What led to this was the problem he had in obtaining the brains

Brain tissue samples,
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of well documented Alzheimer's patients: four years for five specimens. The reason was that they often died at home or in a nursing home – not handy places for a post-mortem. The bank has now expanded to hold three thousand tissue samples – and the same number of registered donors. Specimens are taken from over eighty different areas of every brain acquired. They are then prepared for diagnostics and research and frozen at -80°C . Every precaution is taken to safeguard privacy. Hundreds of research groups in many countries are grateful to be able to use this facility for their research. Swaab himself is also in the card index. There is a great shortage of donors.

Dick Swaab, child of the Hunger Winter of 1944-5, chanced on brain research when, in 1966, he was a student assistant at the Brain Institute in Amsterdam (the present Netherlands Institute for Neurosciences). His parents would have supported him, but he wanted to pay for his studies himself. In common with his father, Swaab feels a need to explain his research to society at large and to tell people about it. On one occasion he accompanied his father, a gynaecologist, to a meeting where information was being given on the contraceptive pill, which was brand new at the time. He was jeered at, just as his son was jeered at when he published on the homo lobe. But neither bomb scares nor

threats had any effect on Swaab.

Life is largely a matter of chance, according to him, and we can have little influence on it. Character is established in the early years; then we have to manage with what is there. We are our brain; our spirit is the product of a hundred million brain cells – including numerous possibilities of derangement. 'Environment and hormones are only responsible for small variations within narrow margins, and in a manner that is already predetermined', says Swaab.

Dirk van Delft

Translated by Sheila M. Dale