



Hans-Christian Dany

The end of the miserable quest for the self

Brain research, determinism, and new promises of salvation

Ten years ago, the Russian futurologist Leo Nefiodov predicted that the health industry would take over from information technology as a motor for growth. At the time, in a world that was inebriated by the boom in information technologies, this prognosis met with little positive response. But people started listening more to Nefiodov when the "New Economy" bubble burst. This big promise, in which there were to be no more cycles and crises, just unhindered growth, suddenly looked like care accommodation for paid patients. After the hangover, new promises are needed for the many who are again wandering through the darkness of the cities.

Even though the house number is right, something seems strange. There is nothing at all to indicate that any kind of event is taking place. In the front garden of the villa the light hasn't even been turned on. But I decide to get out anyway. On the door there is a sign, small but illuminated from the back, saying "Warburg Library". The door is slightly ajar and opens at a gentle push. Behind it waits a lady, wearing a pearl necklace over a grey polo-neck jumper, who kindly points me the way towards the back part of the building. Almost all the seats in the library are taken. The round room is of heavy, dark-coloured wood. The most modern-looking thing here is the Powerpoint Display projected onto a screen. Next to this projection stands Gerhard Roth, the star guest of this discreet meeting of alumni from the German National Merit Foundation.

The sixty-three-year-old Roth, as I have read in the *Spiegel*, is one of the leading minds of the "New Savages of Science" [Neue Wilde der Wissenschaft]. I had expected at least a somewhat frightening supercargo, who would also have fitted well into the wooden-ship-like setting of the Hanseatic library. But Roth looks like a nice old Social Democrat from Bremen. After some jokes tailored to the target group, Roth, who has PhDs in philosophy and zoology, talks about his reports on expeditions to an unknown land, which are at present the subject of excited discussion. However, he does not do much travelling himself to the places in question. Instead, he collects the travel experiences of others, weaving them into a meaningful fabric. With the help of the projection, he interprets maps showing islands, seas, open fields, and connections. They have exotic names like amygdala and basal ganglions. The latter look on the drawing like a slug under fluffy clouds and act as the human memory for emotional experiences. This examines the parameters of the decisions facing an individual. The "experience memory" works away at perceived reality as long as it needs to find something familiar in it. Then it chooses between the possible decisions with the goal of achieving a repetition of a pleasure experienced in early childhood or even before birth. The unconscious decisions taken by the experience memory, that is, the memory

where the hope for pleasure and enjoyment is to be found inscribed, are perceived by the conscious mind only after some delay. The consciousness then kids itself that it is taking a decision, even though everything has been decided long before. But this is a self-delusion that cannot be discovered by means of self-observation, but only by laboratory examination.

According to Roth's conception of the brain, people continue to repeat only those first experiences that have etched themselves as pleasure into the basal ganglions by the third year of life, when the emotional formation of context begins. He says that what we consider to be our Self, which chooses between various possibilities consciously and of its own free will, is a quasi-automatic function that makes its selection according to pure feel-good aspects that were established long ago. The audience claps contentedly, but has some questions. At first, as in the media discussion on brain research, the jurists enter the arena to ask about the criminal responsibility of these beings. Roth talks a bit about the shrunken brain lobes of sociopaths. He concedes to a psychotherapist that her profession can bring about measurable changes. Roth generously allows a mathematician to calculate all of this under the aspect of chaos theory. Now I wait for the contradiction of some Kantian, present by chance, to complete the scenario, but Roth uses the relaxed, amused atmosphere to let the cat out of the bag. When the three small words are uttered, a whisper goes around the room. Yes, he has said it, the people sitting around me say to each other: "We are predetermined." While he is about it, the neuro-determinist follows up with the second slogan: "Free will is illusion." My basal ganglions can't work out what is meant to be so attractive about this thought, but if I have learnt one thing in life, it is to go when things are at their best. In the hallway, the lady with the pearl necklace slips a pile of photocopies with the title "The Manifesto" into my hand. On the street I hail a taxi. When asked where I'd like to go, the only response I can think of is: "I want to get away from here." What a naive thing to say. I — or the interplay of my neurones — brood over whether Hans has perhaps always wanted nothing but to get away.

As I have no idea who could answer this question, I turn to the photocopies in my hand. In "The Manifesto", nine leading male neuroscientists, including Gerhard Roth, and two female neuroscientists sum up how they see the future of brain research in the twenty-first century. But at first they describe the way things stand at present: scientists now have a great deal of insight into the highest organizational level of the brain and know where the complexes governing perception, language comprehension, the planning of actions, and the experiencing of emotions are situated. Great advances have also been made on the lower level — the transfer of neuronal stimulation or the way intercellular signals function. The greatest gap in knowledge is in the middle, in the place where all these processes come into contact with one another. "Alarminglly" little is known about the way these hundreds of millions of nerve cells communicate with one another. Even the image-making procedures that have been so eulogized in recent times — positron-emission tomography or magnetic resonance tomography — are only of limited help in exploring this unknown middle area. Although it is possible to use them to measure and to locate which cells were active at any one time, it is not possible to evaluate these events. The authors of the manifesto choose a telltale comparison to illustrate the problem: it is as though it were possible to see where there is electric current in a computer, but not what problems are being worked on. In view of this choice of words, my interacting neurones cannot help thinking that a generation of researchers was once more trying to explain the previously unexplainable of our natural preconditions by means of the tools we are presently using to get control over our lives.

The manifesto issued by these brain researchers does not indulge in linguistic criticism, but does admit that we are far from deciphering neuronal dynamics. At the point where the authors of the manifesto turn modest in view of the size of the tasks facing them, they for the first time make a demand: more progress could already or soon be made if there were enough high-performance computers available. The computers are also indirectly meant to help to solve the problem of the unhappily chosen metaphors from the digital world, like links and programmings, and generate models that are less oriented to the concepts of present-day informatics. So, although there is still a lot of poking about in the dark, and formulations are still misleadingly derived from computer language, the manifesto demands that the "big questions of neuroscience", such as that of the existence of something like a free will, should already be discussed now. Why this should be done is not explained any further. Now, although this is not put so clearly, brain research is said to be a very slowly developing field of research. Its last big boom of discovery was towards the end of the nineteenth century. Since then, progress has been rather slow and laborious. This sluggishness explains the ambitious haste of some brain researchers — in view of the brevity of their own lives — to stick their necks out with philosophical speculations even though they haven't even got as far as the most basic functions of the brain. After a subheading, the text jumps from the right to speculation to the practical medical applications. The authors of the manifesto promise better drugs and intelligent artificial limbs. This is enticing bait that I readily accept, but drop suspiciously a moment later, because there's something there that stinks. Haven't I been lured onto the Internet with that before? The packaging of that promise was entitled *Neuromancer* and was a novel by William Gibson that came out in the mid-1980s. Something like the Internet was described in it as a drug-like experience — and along with it you would get, free of charge, intelligent bodies called, for example, "Molly", with which one could even have sex, but which could also simply be used as prostheses. When the promise did not eventuate, everyone claimed to have known nothing about it, saying it had all been a big misunderstanding.

But the brain researchers of course mean the healing drugs of the health industry that solve our big problems with Alzheimer's, Parkinson's, schizophrenia, or depression. Now the talk is even of a "foreseeable future" in which "a new generation of psychiatric drugs will be developed that, "selectively and thus both highly effectively and with a minimum of side effects, attacks specific nerve cell receptors in particular brain regions". Perhaps because they are scared of being bored or dying while waiting for the new drugs, the brain researchers at the end emphasize once more that, in the meantime, they are directing their attention to the thorny questions of epistemology, the transformation of our image of humanity and the senselessness of the dualistic concept of a division between body and soul.

I notice that the signatories of the manifesto do not include Benjamin Libet, who is central to the German brain-research discussion. Libet, a neurophysiologist who teaches in the US, is constantly referred to by the determinist group. In 1979, he carried out an experiment where the experimentees had to raise their left or right arm and say at what moment they took the decision. Libet came to the conclusion that the potential for motor activation was set into motion earlier than the subjective feeling of deciding. With the "feeling of decision", the brain only tells the conscious mind that it has done something. Libet himself believed for a long time that humans simply do not have time for actions based on free will. However, as early as the 1990s, he began to admit that control centres like the intellect did have a "right of

veto" and that not everything was decided by the interplay of neurones. Hardcore determinists like Roth dismiss the objections made by the architect of the foundation of the "neuronal turn" with a brief sentence: "Until now there has been no evidence for such a veto function."

But Libet began to call his own "proofs" into question as laboratory results of limited application. He criticized as doubtful speculations the theories that other brain researchers constructed on their basis. In one of the articles that was published this year in German under the title "Mind Time: How the Brain Produces Consciousness", Libet goes so far as to call it stupid "to give up our view of ourselves as having a certain freedom of action and not being predetermined robots on the basis of an unproven theory of determinism". One does not have to share Libet's opinion that giving up our view of ourselves is stupid: although the neuro-determinists may mostly take cover behind the argument of scientific thought, which is, they say, compatible with the idea of free human will, the image of the world they offer also has something seductive about it.

In the foreword of the book *Hirnforschung und Willensfreiheit* [Brain Research and Free Will], the brain-research expert of the *Frankfurter Allgemeine Zeitung*, Christian Geyer, has examined why the sentence, "When you think, you are only thinking that you are thinking", is so attractive. He writes that the model proposed by the neuro-determinists is, in its abstraction — as a process that eludes self-observation and can only be monitored as a model in a laboratory — both a "relief from the concrete" and a manifestation of the longing for the end of the miserable search for our own Self. We could finally cease this perpetual listening inside ourselves that fails to produce anything reliable. That is why many people much prefer the "determinist horror to an endless introspective horror".

Because I myself have ears that are twisted from all this listening inside myself and rarely hear anything but crackling cartilage, I ask myself, why not? Why not put an end to the miserable Self and its dubious will? Before I arrive at a decision that I would yesterday still have considered madness, the taxi driver asks me if I am now far enough away. A glance at the taximeter saves me the decision. We have to drive first to an automatic telling machine so that I can pay my alarmingly expensive fare.

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