



Dänemark erkannt. Dort wurde 1992 ein zentrales Verfahren zum Umgang mit Fehlverhalten in Kraft gesetzt und der Vorsitz der Berufungskommission einem Richter übertragen. Auch in den USA wird dies gefordert. Die deutschen Einrichtungen nehmen hierzu nicht ausdrücklich Stellung. Die Verfahrensordnungen der Max-Planck-Gesellschaft und der Hochschulrektorenkonferenz würden es allerdings zulassen, daß der Vorsitz einem Juristen übertragen wird.

Zu überlegen ist schließlich, ob Ermittlungsverfahren innerhalb oder außerhalb der Forschungseinrichtungen stattfinden sollen. International gesehen gibt es bisher also zwei Modelle: Das amerikanische Modell überläßt die Verantwortung primär den Forschungseinrichtungen. Erst in zweiter Linie sind die großen nationalen Fördereinrichtungen zuständig. Allerdings hat die nationale Gesundheitsbehörde mit ihrem Office of Research Integrity (ORI) im Bereich der biomedizinischen Forschung faktisch mittlerweile die Stellung einer zentralen Überwachungsbehörde inne. Das amerikanische Modell haben Australien und Kanada übernommen.

In Dänemark, seit kurzem auch in Norwegen und Schweden, wurden dagegen zwei ständige regionale Komitees und eine zentrale Berufungsinstanz eingerichtet. Die Komitees verhängen, anders als in den USA, Kanada und Australien, keine Sanktionen, sondern sprechen Empfehlungen an den Arbeitgeber des Beschuldigten aus.

Nachdem sich in Deutschland die Deutsche Forschungsgemeinschaft und die Max-Planck-Gesellschaft Verfahren zum Umgang mit Fehlverhalten gegeben haben, die Hochschulrektorenkonferenz eine Muster-Verfahrensordnung für die Hochschulen verabschiedet hat und auch bei der Helmholtz-Gemeinschaft eine Verfahrensordnung in Vorbereitung ist, wird deutlich, daß hierzulande ein dritter Weg eingeschlagen wird. Die Fälle werden weder aus den Einrichtungen »herausgeholt« wie in Dänemark, noch existiert eine zentrale ministerielle Kontrollinstanz wie in den USA. Der Diversität der deutschen Forschungslandschaft entsprechend ist jede Einrichtung für die Bekämpfung von Wissenschaftsbetrug in ihrem Bereich selbst zuständig und verantwortlich.

Wieder einmal sind es amerikanische Erfahrungen, die zeigen, daß Forschungseinrichtungen damit überfordert sein können, wenn sie Wissenschaftsbetrug in den eigenen Reihen ahnden: Die Mitglieder der Untersuchungskommissionen kennen den Beschuldigten, arbeiten mit ihm in der gleichen Einrichtung und haben eine Meinung über seine persönlichen und fachlichen Qualitäten. Wird ein beliebter Kollege verdächtigt, wird mit Mißtrauen gegenüber dem Informanten reagiert. Wird ein unbeliebter Kollege verdächtigt, wird dem Informanten von vornherein Glauben geschenkt. Wird ein berühmter Kollege verdächtigt, soll manchmal Schadenfreude aufkommen. Wird schließlich eine Forscherin von einer Kollegin verdächtigt,

so ist dies Anlaß ganz besonderer Kommentare. Ein faires Verfahren ist deshalb nicht immer gewährleistet.

Ob in Deutschland die gleichen Probleme entstehen werden wie in den USA, bleibt abzuwarten. Eine übergeordnete Behörde, die notfalls allen Forschungs- und Fördereinrichtungen ein zentrales Verfahren außerhalb der eigenen Einrichtung verbindlich vorgeben könnte, gibt es hierzulande nicht. Eine zentrale Untersuchungskommission könnte deshalb nur von den Einrichtungen selbst geschaffen werden.

Thesen

1. Wissenschaftsbetrug ist nicht die Privatangelegenheit einzelner Betroffener.
2. Fehlverhaltensvorwürfen muß an allen Einrichtungen in gleicher Weise begegnet werden. Besonders wichtig ist, daß Übereinstimmung darin besteht, welche Verhaltensweisen als Fehlverhalten anzusehen sind und welche nicht.
3. Wissenschaftliche Kommissionen sind eine Chance für die Wissenschaft, wissenschaftsethische Konflikte im Zusammenhang mit Wissenschaftsbetrug jenseits staatlicher Fremdkontrolle auszutragen.
4. Der reine wissenschaftliche Dialog ist als Verfahren zur Aufklärung von Fehlverhaltensvorwürfen untauglich.
5. Allein mit Juristen besetzte Kommissionen sind ebenfalls ungeeignet, Fehlverhaltensvorwürfe angemessen aufzuklären.
6. Den Vorsitz der Untersuchungskommissionen sollten Juristen führen.
7. Sollten die deutschen Forschungseinrichtungen mit der Ahndung von Fehlverhalten überfordert sein, wäre die Schaffung einer gemeinsamen zentralen Untersuchungskommission zu erwägen.



Hans Davidsen-Nielsen

Scientific police force? The Danish model

In 1996 the prestigious British journal *Nature* informed its readers that Denmark is a leading country in Europe in the fight against scientific misconduct. The reason for this, it was stated, is the existence of a special committee on scientific dishonesty, the *Udvalget vedrende Videnskabelig Uredelighed* (abbreviated UVVU), set up by the Danish Medical Research Council in 1992 to deal with accusations of scientific fraud in the area of medical research.

What is certain is that between 1992 and 1997 this imposingly named committee failed to uncover a single case of serious misconduct. Thus, if the UVVU is to be believed, scientific fraud hardly exists in Denmark. It would be far closer to the truth, however, to say that the UVVU has become a kind of whitewashing centre for researchers who have been accused of dishonesty. The number of cases dealt with has been limited, and so has public interest in the issue.

The UVVU regularly publishes ethical guidelines on how researchers ought to behave; furthermore, its annual reports contain articles of a general nature in the field. It therefore cannot be ruled out that the UVVU may have a deterrent effect upon scientific cheats. Nevertheless, it is clear that the prospect of falling into the committee's clutches does not exactly inspire fear in the hearts of young Danish researchers.

In a 1992 paper which lay behind the establishment of the UVVU, it was stated that scientific dishonesty was as likely to exist in Denmark as in the United States. The imperative to »publish or perish« is now global, its authors maintained, and thus the economic and career incentives to cut corners are the same all over the world.

And there *have* been serious cases of scientific fraud in Denmark. In the 1950s, the son-in-law of the Rector of Copenhagen University was stripped of his medical degree for having falsified data. The same thing happened in 1994 to the well-known physiologist Else Hoffmann of the August Krogh Institute, a scandal which I myself disclosed

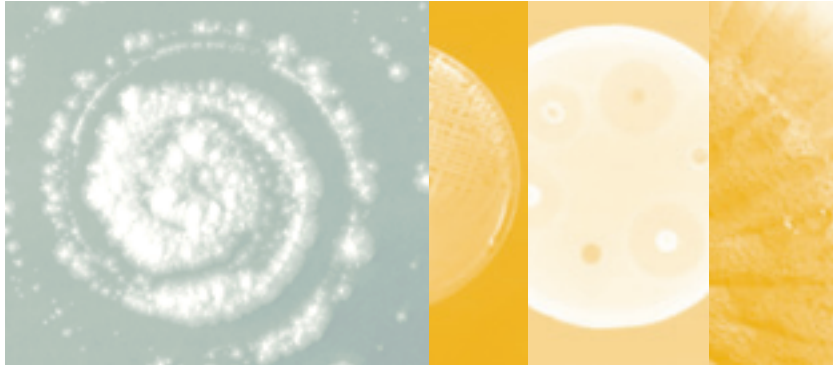
as a journalist at the newspaper *Weekendavisen* and which provides unique insight into an academic world which is tightly knit and sometimes mendacious.

There is hardly any doubt that if Else Hoffmann had been employed at an American university, she would immediately have been dismissed. But in Denmark we are not like that; for better or worse, the Danish mentality is different. Indeed, no matter how serious a case may be, great attention is always paid to personal factors and almost no one is ever given the axe. The drawback connected with this type of caution has been well described by a former Speaker of the Danish Parliament: »In Denmark responsibility always disappears.« I venture to claim that had it not been for the critical efforts of the press, Else Hoffmann would have been promoted to the post of full professor instead of being stripped of her degree.

As a prominent researcher, Else Hoffmann had applied for a professorship in cell physiology at the August Krogh Institute at the University of Copenhagen, and she was generally expected to get the job. However, three researchers from the medical Panum Institute – Jesper Brahm, Thomas Zeuthen and Steen Dissing – knew that the concluding section of her 1987 doctoral dissertation contained passages that had been copied directly from the work of American scientists. This text, which had also been published in article form in the international *BBA-review* and *Current Topics in Membranes and Transport*, contained more than 1200 plagiarized lines.

Two of the researchers from the Panum Institute had known about the plagiarism since 1989 but had chosen to keep quiet about it in order to avoid creating trouble in a small research milieu. However, when the professorship in cell-physiology was in the process of being filled, it became clear to all three researchers – two of whom (Brahm and Zeuthen) had also applied for the post – that the extent of Hoffmann's plagiarism was far greater than they had

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initially believed. Therefore, the case was transferred to the Dean of the Faculty of Science, Henrik Jeppesen. The three researchers would later regret this development bitterly. The Dean did two things: first he set up a committee that was to study the question of Hoffmann's plagiarism; then he closed down the selection committee for the professorship.

With each stone that was turned, the scandal kept growing at the August Krogh Institute. Although it was obvious that Hoffmann, like a naughty schoolgirl, had cribbed from others, the Dean had to search as far away as America to find two suitable experts to investigate her offence. Nevertheless, there appeared to be personal disability problems with these experts.

The committee's report turned out to be what might be called a 'greywash' of Else Hoffmann. The conclusion was that she had plagiarized »extensively« and »clearly beyond what is normally accepted«. On the other hand, the committee did not think that »intellectual theft« was involved. Instead they classified Hoffmann's wrongdoing as the result of »slovenliness«, »laziness« or »time pressure«.

Many people found this interpretation hard to swallow. And in fact, the University of Copenhagen chose to divest Else Hoffmann of her doctoral degree. However, the international periodicals which had published Hoffmann's articles have never been asked to disclaim them.

The most remarkable aspect of the Hoffmann case was the treatment to which the three researchers from the Panum Institute were subjected. Experience from the United States has shown that so-called »whistleblowers« are often given a rough time, even if their accusations are well founded. And in this respect, the Hoffmann case was no exception.

The committee – which, besides the two Americans included a prominent Danish professor of law, Ditlev Tamm – did not miss the opportunity to cast suspicion on the motives of the three researchers from the Panum: »As her accusers were competitors, the committee might feel tempted to question the purity of their motives«, it was stated in the report.

Eventually, however, this denigration backfired. The University of Copenhagen officially repudiated the accusation that the three researchers had acted disloyally. At the same time, Denmark's most famous researcher – last year's Nobel laureate in chemistry, professor Jens Chr. Skou – gave the public a piece of his mind, out of keeping with his usually reticent style. In a letter to the editor of a major

Danish newspaper, he and a colleague from the University of Aarhus characterized the committee's analysis of the researchers' motivations as »quite inadmissible« and detrimental to »the self-supervision of the scientific world«.

Brahm, Zeuthen and Dissing deplored the fact that they were unable to approach the UVVU as official complainants. The problem was that formally the Hoffmann case fell under the jurisdiction of the Faculty of Science rather than the Faculty of Medicine, where they were employed.

The advantage of the UVVU's method is that informants are entitled to be examined as one of the parties and are given access to the documents in the case. At the same time, the UVVU is independent of Danish research institutions. Its members are selected by universities, municipalities and counties. Law and order is guaranteed by the fact that the UVVU has a high court judge as its chairman.

The Danish definition of scientific dishonesty is more comprehensive than the American one. It not only covers those cases in which data are distorted or falsified, or in which the results or writings of other researchers are plagiarized. It also covers misleading applications, featuring as co-author of a paper without having contributed sufficiently to it, and the use of statistical methods which make it easier to obtain a desired result.

If a researcher suspects a colleague of cheating, he can report it to the UVVU. Under very special circumstances, the committee also deals with anonymous complaints. An example of this was the spectacular 1994 case against the Rector of Copenhagen University, Kjeld Møllgård.

In 1971, when he was a 28-year-old brain researcher at the University of California at Berkeley, Kjeld Møllgård, in collaboration with some American colleagues, published some sensational results in the *International Journal of Neuroscience* which no one has since been able to repeat. This article, of which he was first author, claimed to demonstrate an extreme anatomical difference in the brains of rats that had lived in a stimulated environment during their growth. According to Møllgård, the size of the contact areas (synapses) between the nerve cells in the cerebral cortex was 52 percent greater in the rats that had been stimulated.

After Møllgård had left Berkeley, his American co-authors unsuccessfully tried to repeat the experiment. Even when they examined his original material, they were unable to arrive at the same measurements.

According to the director of the laboratory, Professor Marian C. Diamond, Møllgård's refusal to participate in

a repetition of the experiment looked suspicious. In 1975 the research team – this time without Møllgård – published a new paper in the *Journal of Neuroscience Research* in which they retracted the results that had been published four years earlier in the previous article.

By 1994, the case was already 23 years old. However, it had been used against Møllgård within the academic world whenever he was about to make a step upwards on the career ladder, and the Rector said that he sincerely hoped that the UVVU – in spite of its misgivings about the anonymity of the report – would take up the case so that rumors of scientific fraud could be dispelled once and for all.

A member of the United States National Academy of Science, Professor William T. Greenough of the University of Illinois, took Møllgård at his word. Greenough had done research in the same field as Møllgård and believed that scientific fraud had to be involved. Therefore he presented himself as an official complainant to the UVVU.

The UVVU's report turned out to be a complete exoneration of Møllgård, without any criticism whatsoever of his conduct. According to William Greenough, this decision was political.

Most brain researchers I have spoken with, however, are of the opinion that Kjeld Møllgård – though quite possibly an uncritical researcher – is not a cheat. But their assessment is also that the UVVU was very lenient with the Rector Magnificus. The committee did not convincingly explain how Møllgård had succeeded in obtaining his remarkable results. And it has been commented that the three stereologists whom the UVVU had asked to investigate the case could only be cited in support of the following weak statement: »Other explanations than data manipulation might account for the differences...«

In an interview two years ago with UVVU's deputy chairman, Daniel Andersen, the case was nonetheless referred to as »totally unfounded«.

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Daniel Andersen has become the very personification of the UVVU. He is the one who represents the committee externally, and he writes practically all the articles in its annual report. At the outset, all the committee's members had to be »active medical researchers«. But together with another prominent member, Povl Riis, Daniel Andersen has been permitted to stay on although both he and Riis retired from their jobs some years ago.

To me, Daniel Andersen comes across as a person who is good at pouring oil on troubled waters. Some would

probably describe him as a representative of the scientific establishment. For example, he was asked by Kjeld Møllgård to direct the follow-up examination of Else Hoffmann's original articles. The conclusion was that Hoffmann had done nothing fraudulent but that there were some »substantial deviations from common scientific practice«. However, Daniel Andersen did not sign the complaint made by two other members of the examining committee that Copenhagen University had misused their report in stating that everything was perfectly as it should be. Daniel Andersen has also taken part in the debate to which the German Brach-Hermann scandal gave rise. In November, *Nature Medicine* carried a leading article on this case, which gave the UVVU's deputy chairman a welcome opportunity once again to give an account of the experience in Denmark. His letter to the editor was entitled »Honest Danes«.

But if the Danes are really so honest, what is the point in having a scientific police force? According to the UVVU, one important function is to clear researchers of unfounded accusations which can poison the research environment for years. But do controversies between colleagues really justify a control system as comprehensive as the UVVU? Would it not be more reasonable for a body like the UVVU to convene at a time when it is truly necessary to cry wolf?

According to Peter Aaby, a medical doctor at the Danish Serum Institute who in 1993 was cleared of the most serious charges ever brought before the UVVU, it was a depressing experience to be pulled through the wringing machine. After his acquittal he said: »The system tends to drag trivial internal conflicts into the glare of publicity. I fear that the UVVU will become a forum for cantankerousness and malice.«

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