

Tade M. Spranger*

Legal Implications in Connection with the Generation and Usage of Neuro-Scientific Findings

Introduction

Whereas the past few years have repeatedly been entitled as the "era of biotechnology", most recently one has to get the impression that at least the same degree of intention is being paid to the latest developments in the field of neuro-sciences. It is by now nearly impossible to oversee the number of research projects dealing with the functionality of the brain – for instance concerning the organizational structure of the brain – or projects dealing with the topic of mind reading. Massive efforts have also been taken in the field of prediction; for instance it is possible to analyze certain structure and by this see the proband's decision before he has ever told his decision.

The above-mentioned procedures are connected to a number of legal questions. These questions concern the frame conditions of the projects as well as the right approach towards the generated findings. This paper is not only to show the various facets of legal implications, but is also to generate – as far as possible – possible practical solutions. Thus, the paper does not connect to certain parts of legal fields, but tries to show the most relevant fields of application, which have already become most relevant for the generation of neuro-scientific findings.

Problems connected to the generation of knowledge

Background

The generation of neuro-scientific findings is mainly based on the usage of image-guided procedures, such as the Positron Emissions Tomographie (PET), the Single Photons Emissions Computer Tomographie (SPECT) or the functional Magnetic Resonance Tomographie (fMRT). Anomalies are detected in more than 40 per cent of the cases, of

which up to 8 per cent are anomalies of clinical relevance for healthy proband and therefore are considered as so called incidental findings. Whereas the discussion in the natural sciences and in the philosophical literature is highly complex and shows great efforts, the legal discussion on the topic has not yet really been started.

Legal Conflicts

Due to the differences of a researcher-proband-relationship to a physician-patient-relationship, there is regularly no contract of medical treatment which would stipulate any basis for the further legal assessment. However, this does not at all mean that there would be no legal problems in this context. To the contrary, risks of liability and responsibility become even more important in non-contractual relationships, in cases of a proband's damnification or a damnification to a third party.

Consequently, first of all one should answer the question, which possible constellations may cause a damnification. An opinion in literature sees the following constellations as relevant: report on an incidental finding against the declared will of the proband or without his consent, becoming of a necessary treatment in form of therapy with the risk of adverse reactions, change for the worse in the assurance status, the evaluation of the images is not carried out properly or with a delay, the information about the incidental finding is deferred self-responsible with the effect of avoidable consequential damages, the form of information leaves the proband without any help (lack of a personal and temporally appropriate dialogue), omission of further diagnostic measures, wrong advice for necessity of further diagnostic measures.

This enumeration has been highly criticized, for those constellations would only have a higher likelihood of turning into damnification, which does not mean that a legally relevant damage and consequently a claim for damages have to evolve from the constellations in any case. Nevertheless the enumeration helps to show the great variety of possible fields of conflicts. Neither can the risk of a responsibility according to Criminal Law (especially with regard to the delicts of assault and battery) be excluded by this, nor can the possibility of claims

* PD Dr. iur. Dr. rer. pol. Tade M. Spranger; Head of the research group "Normsetting in the modern life sciences" at the Institute of Science and Ethics in Bonn, Germany. The author wants to thank the German Ministry of Science and Education (BMBF) for its grant and further support within the trinational Neuroethics Initiative.