



Europäische Akademie

zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen
Bad Neuenahr-Ahrweiler GmbH

Direktor:
Professor Dr. Dr. h.c. Carl Friedrich Gethmann

Newsletter

Akademie-Brief ▪ No. 49 (September 2004)

Editorial

The work of the Europäische Akademie is characterised not only by interdisciplinarity but also by an international character. Hence, numerous reputable scientists from abroad belong to the Council of the academy. To meet the requirements of this international orientation, the Europäische Akademie presents itself from September 2004 on-line also in English language. Through the internet with its measureless access to information, the academy makes its contents and activities available for national and international institutions and partners, the press and the interested public.

Starting from the welcome page of the academy – www.europaeische-akademie-aw.de – visitors have the possibility to decide between two languages. Therefore, a complete translation of the German homepage took place, so that now without exception all information about the academy is also accessible for non German-speaking visitors. The contents of the pages comprise, among other things, information about current and completed projects, study groups and conferences of the Europäische Akademie. Besides, mainly all publications can be downloaded and, as usual, current entries concerning Calendar of Events, News, Press and Jobs can be found on the English homepage.

SKI/SUS

Focus

Business Ethics of Innovation

Gerd Hanekamp

Business Ethics of Innovation strives to give orientation in settings where new products, new markets, new environments are predominant. The provision of new products and solutions is inseparably intertwined with the consequences of their use. These can be manifold and in some cases an (unwanted) consequence might even preclude them from being used. A case in point is illustrated by an example from the pharmaceutical industry.

River blindness is a disease occurring in tropical regions of Africa and South-America. It is caused by a parasite transmitted by the black fly and in its final stage causes complete and irreversible blindness. In 1979, a researcher at Merck & Co. found that a substance used as an animal drug was extremely promising to prevent people from being affected, by killing both the parasite as well as the black fly itself. The persons concerned, however, do not possess the necessary means to pay for a corresponding drug not even at a price that would cover the costs of the necessary clinical trials. These were nevertheless undertaken and, after 7 years, the highly effective drug Mectizan was available of which only one tablet taken once a year has the desired effect. Whilst diverse attempts to gain national or international funding to distribute the drug failed, Merck decided to provide it for free. Since 1987, Merck has distributed over 700 Million tablets through its Mectizan Donation Program (www.merck.com).

After having learnt that the new product Mectizan had no prospects of becoming an innovation, i.e. a market success – since the demand for the drug is not backed by the necessary financial means to establish a market – Merck & Co. decided to give it away free of charge. They pursued their

main objective – preserving and improving human life – even though it was necessary, in this case, to abandon purely economic considerations.

The Mectizan case is a standard case in business ethics text books concerning the 'Purpose of the Corporation' (Beauchamp/Bowie: Ethical Theory and Business), Corporate Social Responsibility (Crane/Matten: Business Ethics) or even as an introduction as to what task business ethics has to fulfill (Velasquez: Business Ethics. Concepts and Cases). The bottom line is that a corporation does not obey the rules of profit maximization in order to supply goods that are needed by those who are not able to pay a sufficient price to establish a market or who are not able to pay the market price – as e.g. in the case of AIDS medication for developing countries. In the latter case, the innovation in patent protected markets leads to prices that are not easily affordable in developing countries.

Everybody will welcome this type of commitment on the part of a pharmaceutical global player. Some might add that all companies should have this type of programme, and, in fact, today many companies do. Others will probably state that companies only can afford these measures if they make profits with their 'normal'

business, e.g. innovations on patent protected markets. Few will say that Merck & Co. should rather base their decisions on economic grounds and not play the role of a charity organization. According to an 'adequate social division of labor' a charity organization could have bought Mectizan in order to give it away for free. Merck, as a matter of fact, tried this route but was not successful.

These opinions are mirrored by three approaches that are frequently found in business ethics in order to evaluate the above type of question: The systems view, the restrictions view and the objectives view.

In the *systems view* social life is seen as split up into different systems that function according to their particular rules and objectives. In a crude interpretation one could talk about a social division of labor that is constituted by a systemic differentiation. Everybody is best off when the systems function only according to their own rules. The business system thus has to do business, i.e. maximize profits by e.g. establishing innovations. Charity is taken care of by other social systems.

In the *objectives view*, firms are seeking to reach their central objectives. Merck & Co. e.g. according to its core values "is preserving and improving human life". Profit – as formal objective – correlates with the fulfillment of this objective. As George W. Merck put it: "We try never to forget that medicine is for the people. It is not for the profits. The profits follow, and if we have remembered that, they have never failed to appear." (www.merck.com) To make profits here merely is a side effect of pursuing one's objectives.

According to the *restrictions view*, to make profits is not a side effect but a restriction of doing business. Only if the firm makes profits can it survive and continue to follow its objectives. Thus business action is restricted by the profit making requirement in the sense that only those actions satisfying the restriction are allowed for further decision making. The profit-making suitability is a filter for business action. All three views presuppose a specific context in which firms operate. It is important to clarify the nature and status of these contexts in order to understand the status of an argument relying on one of these views.

The following scheme will heuristically guide this endeavor. It includes central aspects of a business decision:

0. "View of affairs": Which view of the world, human beings and oneself is presupposed?
1. *Stake, conflict, objectives*: What is it about?

2. *Urgency*: In which time frame does the matter have to be settled?
3. *Stakeholder*: Who is concerned? Who has to be involved?
4. *Rules and presuppositions*: Which rules are relevant, which presuppositions are affected?
5. *Availability*: Which types of changes are possible or acceptable respectively? Which part of the framework is available for change? Which types of changes is one entitled to make?
6. *Functionality*: Which performance of organizations and institutions are concerned and possibly altered?
7. *Legitimacy*: Which basis of legitimacy can the relevant institutions rely on?
8. *Balance and Decision*: The 'view of affairs' is underlying the whole scheme. It can change, e.g. within the discussion of availabilities under step 5. A balanced decision thus always includes a critical attitude towards these views, whether it be to confirm or to revise.

The scheme is supposed to reconstructively structure the handling of decisions and conflicts. Steps 4, 5, 6 and 7 underline the importance of a detailed presuppositional analysis. Furthermore, with step 7 the importance of institutions is stressed. Step 8 might appear peculiar. After all, it is the task of ethical reasoning to demonstrate how balancing and decision-making is supposed to happen. However, an ethical approach cannot free the decision maker from deciding, by e.g. following a calculus type decision scheme. Ethics can only structure the decision according to a scheme like the above and point out presuppositions and what follows from them.

For business decisions these presuppositions could include:

- Prohibition of instrumentalizations: Employees must not exclusively be treated as means to an end. They are always also ends of the common action.
- Principle of autonomy (principle of self-legislation): The obligation to follow a norm or reach certain ends (values) ought to be self-obligations.
- Principle of consistency: Utterances and actions of a single person ought to be consistent.
- Principle of coherence: Common actions ought to be coherent, i.e. consistent with respect to the relevant common context.

These types of presuppositions are neither arbitrary nor are they unshakable. They structure discussions about normative issues in an explicit or implicit mutual consent of the discussants. Ethics does not distinguish the 'correct' presuppositions.

The peculiarities of the different points of view presented above become clear when the scheme is applied. The systems view is focusing on step 6. The functionality of the economic system is an unquestioned presupposition that is not available for critical assessment. The systems view thus is the underlying view of affairs and fully occupies step 0. In an extreme case systemic differentiation is given an ontological status. This means that the systems view is a representation of how things really are and consequently not surmountable but for the price of deteriorating human welfare. In a more careful approach, social life would be *described* as systemically differentiated in a certain way in order to assess certain aspects and reach specific ends. This view is more careful epistemically as well as normatively since it allows us to critically assess the presuppositions of the systems view.

Based on this careful reading, it is not sufficient to refer to the systemic differentiation of modern societies and from there to point out that business has to do what the business system is there for, i.e. to maximize profits in the given framework. Special care has to be taken if this set-up is used to reject responsibilities beyond this 'fair distribution of labor' in society. A distribution of labor must not be determined by particular (implicit) presuppositions of systemic differentiation, i.e. by a specific description of social life. Rather, this description serves certain ends that are available for ethical reflection.

The objectives view is putting the spotlight on step 1. If only the objectives are reached everything else will follow, e.g. commercial success. This, of course, depends on the objectives. If the objective of the firm is the efficient production of black cars but people want color then commercial success is in danger. In the case of the objectives George W. Merck talked about, things are clear: Medicine for the people that preserves and improves their life is nothing that is likely to ever be out of fashion. However, strong regulatory provisions are necessary to allow firms that develop new drugs to make profits. Step 6 needs special attention.

Therefore, it is not sufficient to think about the central objectives of a corporation. It is, however, a suitable starting point and in certain cases under specific circumstances it is suitable to solely act according to the material objectives since everything else follows. Seen the other way around the argument is more general: The central objectives must never be forgotten since without them the corporation loses its direction.

The restrictions view is concentrating on step 5. If a firm does not make profits it will cease to exist and will not be able to follow any objectives. According to the scheme, this view can be far too restricted and leaves out the potential that e.g. a combination of steps 5 and 6 can provide. Namely, if the regulatory framework is made available, i.e. if the matter is taken up in the political arena, the 'realities' that allow for profits can be altered. This at the same time means a different time scale and a different type of decision.

Notwithstanding these complications, the restrictions view does not give a basis for well-balanced decisions since it is at best a global criterion and, thus, cannot serve to solve particular problems.

As aspects of a widened view that relies on all the steps of the above scheme, the three perspectives show that an adequate treatment of the decisions involved in the activities of international pharmaceutical corporations needs a detailed analysis that places these corporations in the central position. This task can only be fulfilled by business ethics. A business ethics of innovation has to provide the custom-made tools and devices needed to this end.

Dr. phil. Gerd Hanekamp, Dipl.-Chem., is Vice-Director of the Europäische Akademie. He is also the managing editor of the academy's journal "Poiesis & Praxis".

Working Groups

Nanomaterialien, Nanodevices, Nanocomputing. Standortbestimmung und Perspektiven

The project group „Nanomaterialien, Nanodevices, Nanocomputing. Standortbestimmung und Perspektiven“ held a meeting from 1st-2nd July in Bad Neuenahr-Ahrweiler and on 22nd July in Frankfurt/Main. The two sessions were both devoted to a thorough preparation of the Mid-term Meeting scheduled for 8th October. The primary focus was on orderly structuring the study draft which will be presented to the respective referees in advance to ensure in-depth discussions during the meeting. The project group members presented each other their draft contributions and will now use the resulting feedback to refine their work units, also incorporating the publication guidelines of the Europäische Akademie.

Project Coordinator:
Dipl.-Ing. Wolfgang Rathgeber
Phone +49 (0) 26 41 – 973 308
wolfgang.rathgeber@dlr.de

Intervening in the Psyche. Novel Possibilities as Social Challenges

The project group "Intervening in the Psyche. Novel Possibilities as Social Challenges" held its second meeting on 18th/19th August in Bad Neuenahr-Ahrweiler. On this occasion, three drafts for papers were discussed. The subject of the first one by Professor Dr. Dirk Hartmann and Dr. Thorsten Galert was "Personal Identity". Especially with regard to brain tissue transplantation, a treatment nowadays predominantly in use for Parkinson's disease, concerns have been raised about its potential to alter the recipient's identity in undesired ways. Hartmann and Galert are analysing the notion of identity in general and of personal identity in particular, thereby laying the conceptual grounds for verifying whether certain ways of intervening in the psyche actually have to be regarded as threatening to personal identity.

In the second paper, Priv.-Doz. Dr. Steffen Rosahl gave a state-of-the-art report on "Neuroprosthetics and Neuromodulation – Concepts, Development, Technology, and Consequences". While the term 'neuroprosthetics' labels technologies for the restitution of lost functions (e. g. brainstem implants for the partial restitution of hearing), 'neuromodulation' refers to technologies that are either aiming at the amplification of diminished neural functions (as, for instance, in Parkinsonism) or at influencing erroneous function in neuronal networks (e.g. chronic pain, mood disorders).

What normative stance is taken toward a particular intervention in the psyche will no doubt depend on the purpose that is pursued by employing it. In the third paper "Intervening in the Psyche: Treatment – Prevention – Enhancement", Professor Dr. Reinhard Merkel proposed a triadic scheme for classifying interventions according to their purposes. Although it is quite commonplace to restrict medicine proper to the realm of treatment, excluding interventions aiming at enhancement, this distinction arguably cuts too short. For instance, most vaccinations quite obviously can not be regarded as treatments, but even though their medical benefits are sometimes challenged, hardly anyone will call into question that vaccinations – as preventive measures – are a proper part of medicine.

Regarding the further development of the project group, its current members decided to extend invitations for the next meeting to a number of experts. Two scientists already accepted to join in the third meeting of the project group that is scheduled for November. Dr. Bart Nuttin, a lecturer at the Catholic University of Leuven (Bel-

gium), will report on the results of the first clinical study that examined Deep Brain Stimulation as a possible remedy for persons suffering from obsessive-compulsive disorder. The second invited speaker will be Dr. Gerard Boer, who is a senior scientist at the Netherlands Institute for Brain Research and a founding member of the Network of European CNS Transplantation and Restoration (NECTAR). He is appointed to talk about NECTAR's ethical guidelines, that have been published under his authorship in 1994.

Project Coordinator:
Dr. phil. Thorsten Galert, M.A.
Phone +49 (0) 26 41 – 973 307
thorsten.galert@dlr.de

News

Interdisciplinary Study on the Reform of the Health System

C.F. Gethmann and F. Thiele (Director and Vice-Director of the Europäische Akademie) have collaborated on a study aimed at a future European health system, the publication of which was already reported on in the most recent Newsletter. The study was conducted by an interdisciplinary working group of the Berlin-Brandenburgischen Akademie der Wissenschaften (BBAW) which began work at the beginning of the year 2000 and concluded the study at the end of the year 2004. Other members of the working group were: W. Gerok (Internal Medicine), H. Helmchen (Medicine/Psychiatry), K.-D. Henke (Economics/Health Economics), K. Knabner (Schering AG, Economics), J. Mittelstraß (Philosophy/Scientific Theory), P. Neuhaus (Medicine/Surgery), J. Reich (Biology/ Bioinformatics), E. Schmidt-Abmann (Law/Administrative Law), G. Stock (Pharmacology), J. Taupitz (Law/Civil Law).

In 26 meetings over the course of three years, the Memorandum was worked out by the working group: C. F. Gethmann, W. Gerok, H. Helmchen, K.-D. Henke, J. Mittelstraß, E. Schmidt-Abmann, G. Stock, J. Taupitz, F. Thiele: "Health Made To Measure? A transdisciplinary study on the fundamental principles of a sustainable health system." which was adopted at a meeting of the Council of the academy at its meeting on December 11th 2003 as satisfying the criterion of providing sufficient work for a working group of the academy.

The Memorandum presupposes that the German health system, like to a greater or lesser degree the health systems of neighbouring European countries, too, is faced

with the task of contending with a large number of challenges (such as demographic changes, medical advance, increasing deficits in the financing, lack of transparency in the flow of funds, uncoordinated structures of provision, funding and remuneration, problems inherent in the European Competition Law). In all of this, the authors see no possibility of maintaining the economic and political stability of the German health system by means of systemic repair work on the current system. As a result of this, the Memorandum submitted is not to be understood as a further report on the acute questions regarding the safeguarding and improvement of the current German compulsory health insurance. Instead, the study constitutes far more an attempt to develop a model, on the basis of fundamental, philosophical, legal, medical and economic considerations which could be conducive to guiding the steps of a reform out of the current system towards the desired aim.

The cornerstone of such a fundamental reform, according to the research findings of the working group, comprises changes in regulatory policy, such as new structures for participation, a minimum compulsory insurance for all citizens with freedom to select the insurance provider, furthermore, a new plurality on the side of the providers (which can partially arise from the existing, compulsory insurance companies) with compulsory contracts. The role of the State must be transformed into that of a purely supervisory body, overseeing guaranties within the system. With regard to the funding, the study supports per-head premiums. The fair social balance shall be effected by taking over the premiums for children and re-allocation measures in the case of persons on low incomes. It is recommended as a fundamental principle that the health system (as also the other social systems) should be safeguarded by more capital cover against unpredictable, untoward developments. Furthermore, the study advocates a change in the remuneration structures in the course of a liberalisation of the contract law. This comprises, above all, a quality-oriented remuneration,

by which an essential instrument of quality assurance shall be created.

The conception presented by the working group lays claim to a certain sustainability in the sense that, for systemic reasons, constant ad-hoc interventions would become superfluous. A genuine insurance system, as proposed by the working group, is in principle sufficiently flexible to adjust itself to the new challenges. The limit of flexibility inherent in such a system is set by the social obligation of the State towards its citizens (wholeheartedly supported in this study) to the effect that no one shall be allowed to sink below a certain social level.

The Memorandum was published at the Akademie Verlag (Berlin).



Graue Reihe

Recently volume 37 of the publication series „Graue Reihe“ of the Europäische Akademie has been issued:

No 37 Konrad Ott, Gernot Klepper, Stephan Lingner, Achim Schäfer, Jürgen Scheffran, Detlef Sprinz, Konkretisierungsstrategien für Art. 2 der UN-Klimarahmenkonvention, 03/04



Lectures

Carl Friedrich Gethmann

28.8.2004 "The Crisis of the Ethos of Science": Session Moral Challenges to Science. Open Science Forum 2004, Stockholm

11.9.2004 „Utilitäre Prinzipien in der Lebendspende“: Symposium „Ethik der Lebendorganspende“ der Akademie der Wissenschaften und der Literatur, Mainz

Felix Thiele

8.9.2004 „Arzt und Urteilskraft“ Festvortrag anlässlich der Verabschiedung von Professor Dr. M. Anlauf, Zentralkrankenhaus Reinkenheide Bremerhaven



Personalities



Margret Engelhard studied biology in Marburg and Edinburgh and graduated 1997 in micro- and molecularbiology at the Philipps-Universität Marburg and the Max-Planck Institute for Terrestrial Microbiology. Parallel to her focus on micro- and molecularbiology she is especially interested in subjects on the border to neighbouring disciplines and conducted consequently a diploma thesis that also covered aspects of botany and ecology. For this work Dr. Engelhard collected probes during an expedition to Nepal and discovered a novel kind of bacteria in symbiosis with rice plants that are, under certain conditions, able to fertilize this important crop with nitrogen. For her Ph.D.-thesis at the University of Basel she continued to work on agricultural relevant plants that are able to live in symbiosis with nitrogen fixing bacteria and focused on the molecular crosstalk between these two organisms. For the genetic aspects of this work she stayed for half a year at the University of Geneva. This summer she was conferred a doctorate. Parallel to university Dr. Engelhard started to work in science journalism and gained insights into pharmaceutical industry when she was admitted to the Swiss program "Women into industry". In January 2004 Dr. Engelhard became member of the scientific staff of the Europäische Akademie and is currently coordinating the project "Incentives for Organ Donation". In addition she is interested in genetic manipulated organisms (GMO) and especially in a novel technique of drug production that is referred to as "Pharming". This technique employs transgenic plants or animals for the production of pharmaceutical proteins.



Publisher:	Europäische Akademie zur Erforschung von Folgen wissenschaftlich-technischer Entwicklungen Bad Neuenahr-Ahrweiler GmbH, Wilhelmstraße 56, D-53474 Bad Neuenahr-Ahrweiler e-mail: europaeische.akademie@dlr.de, Internet: www.europaeische-akademie-aw.de
Director:	Professor Dr. phil. Dr. phil. h.c. Carl Friedrich Gethmann (V.i.S.d.P.)
Editing:	Sevim Kiliç, Dipl.-Päd., Phone +49 (0) 2641-973 313, Fax 973 320, Sevim.Kilic@DLR.de
Print:	Warlich Druck Ahrweiler GmbH, Bad Neuenahr-Ahrweiler ISSN 1432-0150, frequency of publication: 6 – 8 times per year, 2.700 copies, reproduction is permitted with reference to the source, please send two voucher copies.