

# Responses of the Legal Order to the Loss of Trust in Science

Helmuth Schulze-Fielitz

## I. Posited question: Declining trust in science?

Among the insights of recent scientific research that enjoy a broad consensus is the view that the trust of the public in certain spheres of science has diminished, particularly in biomedicine and its technological application (cf. *Shapin* 1995: 392 ff., 398 ff.). Their moral legitimacy, it is argued, has dropped significantly. The consequences are that the professional autonomy of the sciences is restricted in their decisions about how to pursue scientific questions, and that the relationship of the sciences to political decision-making processes is undergoing a fundamental shift. Science's capacity to legitimate decisions made by political decision makers is becoming increasingly problematic (*Cozzens and Woodhouse* 1995: 533 ff.). Can outward manifestations of a crisis of confidence be substantiated empirically?

### 1. General reduction of trust in science?

It is doubtful that there is a general reduction in the public's trust in science (*Weingart* 1997: 606 f.). Public interest in science, especially in medical discoveries and technological inventions, remains as high as ever (cf. statistics listed in *Stehr* 2003: 314); the majority of changes in *technology* are regarded as positive (cf. *Noelle-Neumann and Köcher* 2002: 859). Though only 50.4 % of the Europeans surveyed in the Eurobarometer of the year 2001 affirmed that the benefits of *science* are generally greater than its detrimental consequences (as opposed to 61.2 % in 1992, cf. European Commission, Generaldirektion Forschung 2001: 25 f.), is hardly clear that this can be interpreted as a general decrease of trust in science; after all, the feeling that the progress of science continues to make life simpler and simpler is increasing (for data on Germany, cf. *Noelle-Neumann/Köcher* 2002: 858).

### 2. Areas of science

Consulting survey responses to this question, for instance from Great Britain, reveals a number of more differentiated findings (cf. The United Kingdom

Parliament 2000: Appendix 6). They reveal that only *certain fields of scientific research* are regarded to be controversial, that is, primarily the biosciences (biomedicine, biology), but also fields like the environment, reproductive medicine, communications technology and protection of privacy. This is true even within the individual scientific fields: generally, *biomedical* research enjoys broad support by the general public (Cozzens and Woodhouse 1995: 538.); here strong reservations are expressed only for individual application prospects, many of which, like the cloning of humans, have been decisively rejected by the public. (Human) genetic tests and biomedical research are regarded as considerably more beneficial, less risky, morally less problematic and, all in all, more worthy of support than genetic changes in food production, experiments with animals or xenotransplantation (The United Kingdom Parliament 2000: Table 4). Accordingly, when the public is asked about its hopes for benefits through scientific developments, most respondents list first the area of medicine and medications (57 %), the transplantation of organs (51 %), the eradication of diseases (43 %) and new possibilities for operations (31 %), but next to none mention genetically altered animals, plants or foods (only 1–2 % each) (The United Kingdom Parliament 2000: Table 6; parallel Noelle-Neumann and Köcher 2002: 873, 876). The help, or more specifically, the benefit or damage for other humans, is the standard used most often to judge to rightness of biomedical research. The public perception of science is characterized by cost-benefit considerations.

### 3. Scientific institutions

Losses of trust are valid not only for certain fields of science, but also for *certain institutions*, especially when political or economic *partial* interests impel such institutions to drive certain scientific developments (The United Kingdom Parliament 2000: Rn. 2.36.) whose advantages for the public are not clearly evident. In Great Britain the public has the greatest trust in BSE statements made by scientists from universities (42 %), followed by scientists in the meat industry (26.7 %) and consumer organizations (18.0 %); only 4.6 % trust government scientists on this issue. This is hardly a problem restricted to the BSE issue; similar values emerge for statements on the safety of nuclear power plants (The United Kingdom Parliament 2000: Table 2).

With regard to the trustworthiness of those professions or institutions that make decisions in the *biosciences*, physicians enjoy the highest trust (69–71 %), followed by advisory bodies consisting of a variety of specialists (62–66 %), experts (54–56 %), environmental groups (56 %) and consumer organizations (48 %). Considerably less trust is associated with all other institutions, including patient and animal protection groups (35 %), the government (35 %),