

The European Science Foundation (ESF) was established in 1974 to create a common European platform for cross-border cooperation in all aspects of scientific research.

With its emphasis on a multidisciplinary and pan-European approach, the Foundation provides the leadership necessary to open new frontiers in European science.

Its activities include providing science policy advice (Science Strategy); stimulating cooperation between researchers and organisations to explore new directions (Science Synergy); and the administration of externally funded programmes (Science Management). These take place in the following areas: Physical and engineering sciences; Medical sciences; Life, earth and environmental sciences; Humanities; Social sciences; Polar; Marine; Space; Radio astronomy frequencies; Nuclear physics.

Headquartered in Strasbourg with offices in Brussels, the ESF's membership comprises 75 national funding agencies, research performing agencies and academies from 30 European countries.

The Foundation's independence allows the ESF to objectively represent the priorities of all these members.

Introduction

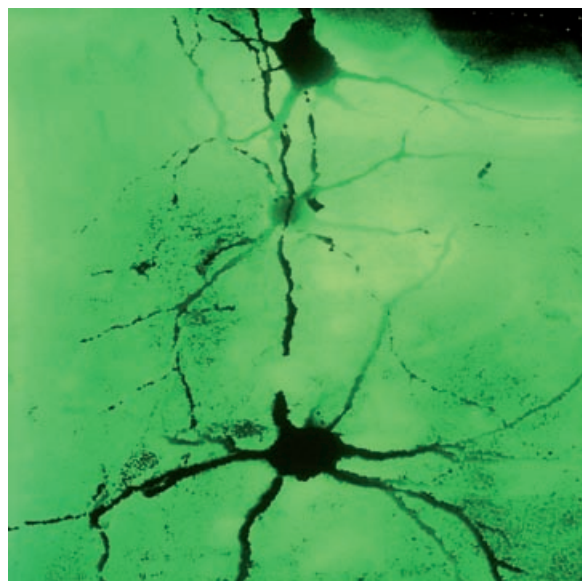
The last twenty years have seen unprecedented progress and innovations in the neurosciences – a term that encompasses the fields of psychiatry, neurology, psychopharmacology, behavioural genetics and molecular biology. Despite evidence that advances in the neurosciences are having a significant impact on the lives of individuals across Europe, there has been little formal engagement within the European social sciences with the ethical, social and legal implications of recent developments in this branch of scientific experimentation. The European Neuroscience and Society Network (ENSN) has been established in order to serve as a multidisciplinary forum for timely and necessary engagement with these issues, through the development of research strategies, conferences, exchange visits, workshops and ‘neuroschools’ that will bring together leading European neuroscientists and social scientists for sustained discussions and cross-disciplinary exchanges about the present and future impact of advances in the neurosciences on our lives. The ENSN is directed by a Steering Committee consisting of representatives from Austria, Denmark, Estonia, Finland, Germany, Netherlands, Norway, Portugal, Switzerland and the UK. The Chair of ENSN is Professor Nikolas Rose, Director of the BIOS Centre for the study of Bioscience, Biomedicine, Biotechnology and Society.

The running period of the ESF ENSN Research Networking Programme is for five years from June 2007 to June 2012.

Objectives and Aims

The aims of the ENSN are:

- To develop an interdisciplinary, European network of social scientists, bioethicists and neuroscientists who are engaging with recent advances in the new brain sciences.
- To develop an infrastructure that will enable and support theoretical and empirical investigations into the ethical, legal, political and social implications of the neurosciences, with a focus on the following four key Theme Areas:
 1. Neuroethics and beyond: setting an agenda for Europe
 2. Public health and the politics of the neurosciences
 3. Neuroeconomies: markets, choice and neurotechnologies
 4. Sources of the neurochemical self: consciousness, personhood and difference
- To provide forums for the mutual exchange of ideas, dialogue and research findings, through the hosting of conferences and workshops, and the development of publications broadly based on the key Theme Areas identified above.
- To develop an infrastructure to enable discussions and analyses of the clinical implementation of emerging neurotechnologies, asking critical questions of the use and distribution of new technologies both within Europe and abroad.



Dr. David Becker

Spinal cord motor neurons

Programme Composition and Key Research Themes

The ENSN is managed by a Steering Committee consisting of representatives of the 10 supporting nations, assisted by Advisory Experts and Programme Collaborators. These participants oversee the development of the ENSN's key Theme Areas:

Theme Area 1:

Neuroscience and society: setting an agenda for Europe

Over the past five years, a number of researchers have drawn on the term 'neuroethics' in order to conceptualise the field of research focused on investigations of the ethical, philosophical, political and social implications of the neurosciences. The theme of the first year of the programme, 'Neuroethics and beyond,' will critically interrogate the merits and limits of neuroethics as the field has so far been conceived, drawing on work of collaborative experts both within Europe and overseas. As the ENSN is convened by a Steering Committee consisting of leading social scientists and neuroscientists in Europe and as the network's Programme Collaborators represent a wide array of leading researchers in this field, the network is well-placed to help develop a European agenda for present and future investigations in this area.

Theme Area 2:

Public health and the politics of the neurosciences

One of the most pressing implications of the neurosciences centres on questions of public health and the equitable distribution of new medical technologies. Researchers in this Theme Area scrutinise the extent to which the neurosciences are reshaping both strategies of public health and individual understandings of mental health and illness through widening the scope of conditions seen as treatable mental disorders. Factors contributing to this widening of scope have been the use of new technologies for the identification of genetic susceptibilities, the increased awareness of environmental risk factors, the increased international use of psychotropic drugs and the development of drugs to 'enhance' selected mental capacities.

Some observers have recently suggested that new findings in fields such as behavioural genomics, neuroimaging, psychology and psychopharmacology are reshaping what it means to be human by providing novel understandings of the neurological processes implicated in human behaviour. Advances in neuroimaging, for example, are presenting a host of novel social, ethical and legal questions, such as debates over questions of individual privacy, image acquisition, the storage of electronic records, and the implications of neuroimaging in cases of criminal liability.

To some, technological advances in behaviour genomics and psychopharmacology are raising concerns

about the reinforcement of neurological reductionism and determinism. Although behavioural genetic information is of significant value for the understanding of the mechanisms underlying psychopathology, some scholars are concerned that such information may lead to new forms of stigmatisation, and to attempts to eliminate difference through genetic selection. Other social scientists, however, are less pessimistic and suggest that enhanced understandings of one's neurological and genetic make-up may contribute to the development of forms of 'biological citizenship,' that is, a politics in which genetic and neuroscientific knowledge may be used to influence, and to ameliorate conditions of health and productivity within nations.

Theme Area 3:

Neuroeconomics: markets, choice and neurotechnologies

Neurological and psychiatric disorders place a considerable burden on the economic health of European nations and the personal wellbeing of European citizens. It is predicted that developments in the neurosciences, through finding treatments for diseases such as depression, Alzheimer's, Parkinson's and autism spectrum disorders will help to alleviate the social and economic burden suffered by individuals and nations. Despite this hope, a number of scholars have pointed out that the development of novel biomedical technologies has often exacerbated economic inequalities because access to them has been available only to a minority. So far, there have been few studies empirically assessing the impact of the development of new neurotechnologies on economic, social or health inequalities, within nations or internationally. An aim of the ENSN is to critically examine current empirical work in this area, as well as to develop strategies for the development of large-scale, multinational empirical studies of the influence of the neurosciences on the European and global economy.

A second underlying focus of this Theme Area relates to the emergence of the subfield of 'neuroeconomics.' One of the pressing questions raised by the neurosciences – and one that has largely been neglected in the literature on neuroethics – is the question of the extent to which neuroscientists are seeking to commercialise their own findings, and how these findings will be regulated by networks of academics, industry and governmental bodies. Related to this, some neuroscientists are suggesting that new advances are leading to novel understandings of the neurological processes underpinning economic behaviour and consumer decision-making. This and related claims are critically interrogated by researchers working in this Theme Area.

Theme Area 4:

Sources of the neurochemical self: consciousness, personhood and difference

New developments in the neurosciences are leading to shifts in understanding of the self. In the area of psychopharmacology, for example, recent findings are offering new insights into the aetiology of psychiatric disorders, and new opportunities for intervening in the individual's mental state. Despite the promise raised by new medications, there are a number of ethical, social and legal concerns over the present and potential misuse of psychotropic drugs. Some suggest that taking a pill to enhance the mental state is an affront to the 'natural' onus to endure periods of suffering, and that the prevalence of psychotropic medication may pose a threat to the sanctity of human dignity. Others argue that the use of psychotropic drugs is no more morally problematic than other daily practices of physical and mental enhancement, and suggest it is the theoretical tools themselves which have typically been used to analyse pharmaceutical use – such as the positing of a strict treatment/enhancement dichotomy – that should be interrogated. It is evident that purely theoretical discussions over such issues are insufficient, and that there is a need for more empirical investigations into the specific roles that recently developed psychotropic medicines are playing in people's lives. Researchers in this Theme Area collaborate on strategies for establishing interdisciplinary empirical studies of increased pharmaceutical use.

A research priority of many neuroscientists is the understanding of human consciousness. Some believe the complexities of consciousness are not amenable to the sorts of empirical studies common to the natural sciences, while others assert that consciousness is a legitimate target of study, noting that a certain level of indirectness applies to the investigation of all cognitive phenomena. For some, who view the mind as a machine, consciousness is considered an 'epiphenomenon' that is best understood as the operation of a virtual machine implemented in the parallel architecture of the brain. Others argue that the workings of consciousness are best grasped through developing deeper understandings of sensory perception, as they consider the world of internal thoughts and feelings to be inaccessible to human inquiry.

A criticism sometimes directed at neuroscientists working on consciousness is that they neglect the profound attention that has been paid historically to questions of mind, subjectivity and identity within moral philosophy and philosophy of the mind. As researchers in this Theme Area stress, consciousness is an amorphous concept that has long been the subject of psychology, philosophy, cognitive science and other disciplines within the social sciences and the humani-



MRI scanning

© Wellcome Library, London

ties. In the tradition of the humanities and social theory, for example, consciousness is also considered the product of subjectivity and inter-subjectivity – a fusion of cognition, reason, emotion and intentionality in cultural and social settings. Because of the plurality in the study and the definition of consciousness, it is crucial to develop an interdisciplinary forum for the exploration of different epistemologies, and to develop understandings about the limits of each discourse.

Activities

The ENSN will organise the following events:

1. Annual team workshops;
2. Network conferences;
3. Short visit and exchange grants;
4. Neuroschools

Each year, one of the key ENSN Theme Areas will be chosen as the thematic focus of the four activities above. In 2007 and 2008 there will be a combined focus on the theme of Neuroscience and society: setting an agenda for Europe.

Team Workshops

A chief aim of the Programme is to facilitate concentrated engagement among researchers who would not otherwise have the chance to meet and interact on a formal basis. Thus, the Programme will fund and organise a series of four team workshops, organised around the key themes of the Programme. For each workshop, a team leader will typically be drawn from the list of Advisory Experts and/or programme collaborators to ensure maximum participatory involvement from those outside the Steering Committee. Team leaders will, with the administrative support of the programme coordinator, each organise a concentrated, annual three-day multidisciplinary seminar. The seminar will be limited to 20-25 participants, chosen for their individual expertise. This selectivity will facilitate the process of compiling the workshop proceedings into a published annual volume. The first ENSN workshop is scheduled for the spring of 2008. More details of this workshop will be forthcoming on this site.

Network Conferences

The Programme will co-ordinate and host a series of two-day conferences for the exchange of debate, research findings and policy suggestions between neuroscientists, bioethicists and social scientists. The first ENSN conference, 'Neurosocieties: The rise and impact of the new brain sciences', is currently scheduled for 12-13 November 2007 in London.

Travel and Exchange Grants

A key goal of the Programme is the promotion of methodological interdisciplinarity among junior researchers. Periodically, at the discretion of the Steering Committee, the ENSN will provide junior researchers with small grants toward the costs of short exchange visits to help foster interdisciplinary dialogue (see the section 'Online application for funds' at www.esf.org/ensn for details).

Residential 'neuroschools'

Two residential research schools, combining two of the four key themes areas, are planned to take place in years alternating with the network conferences. These neuroschools will be somewhat similar to the workshops, but will be of a longer duration, and will involve fewer participants. Open to application by any participant or interested colleague working in these areas, whether from the neurosciences or from the social sciences and humanities, but selective in their admission criteria, the goal of the neuroschools is to promote sustained engagement with the thematic areas identified above. The end result of each school will be a series of papers that will be published as Special Issues in leading international journals.

Funding

ESF Research Networking Programmes are principally funded by the Foundation's Member Organisations on an *à la carte* basis. ENSN is supported by:

- **Fonds zur Förderung der wissenschaftlichen Forschung (FWF)**

Austrian Science Fund, Austria

- **Forskningsrådet for Kultur og Kommunikation (FKK)**

Humanities Research Council, Denmark

- **Eesti Teadusfond (ETF)**

Estonian Science Foundation, Estonia

- **Suomen Akatemia/Finlands Akademi**

Academy of Finland, Finland

- **Deutsche Forschungsgemeinschaft (DFG)**

German Research Foundation, Germany

- **Nederlandse Organisatie voor Wetenschappelijk Onderzoek (NWO)**

Netherlands Organisation for Scientific Research, Netherlands

- **Norges Forskningsråd (NFR)**

Research Council of Norway, Norway

- **Fundação para a Ciência e a Tecnologia (FCT)**

Foundation for Science and Technology, Portugal

- **Schweizerischer Nationalfonds (SNF)**

Swiss National Science Foundation, Switzerland

- **Economic and Social Research Council (ESRC)**

United Kingdom

ENSN Steering Committee and Advisory Experts

Professor Nikolas Rose (Chair)

BIOS Centre for the Study
of Bioscience, Biomedicine,
Biotechnology and Society
Department of Sociology
London School of Economics and
Political Science
Houghton Street
London WC2A 2AE • United Kingdom
Tel: +44 20 79 55 75 33
Email: n.rose@lse.ac.uk

Ms. Linsey McGoe

(Programme Coordinator)
BIOS Centre
London School of Economics and
Political Science
11th Floor, Tower 2
Houghton Street
London WC2A 2AE • United Kingdom
Email: l.j.mcgoey@lse.ac.uk

Professor Ilse Kryspin-Exner

Faculty of Psychology
Vienna University
NIG 6 Stock, B 616
Universitätsstrasse 7
1010 Vienna • Austria
Tel: +43 1 42 77 47 809
Fax: +43 1 42 77 47 899
Email: ilse.kryspin-exner@univie.ac.at

Dr. Andreas Roepstorff

Psychiatrische Universitätsklinik
Department of Anthropology,
Archaeology and Linguistics
Faculty of Humanities and Faculty of
Health
University of Aarhus
Center for Functionally Integrative
Neuroscience
Building 30, AKH
Noerrebrogade 44
8000 Aarhus C • Denmark
Tel: +45 8949 3030
Email: andreas@pet.au.dk

Professor Jaanus Harro

Department of Psychology
Faculty of Social Sciences
University of Tartu
Tiigi 78
50410 Tartu • Estonia
Tel: +372 7 375911
Fax: +372 7 375900
Email: jaanus.harro@ut.ee

Dr. Ilpo Helén

Research Unit
Department of Sociology
University of Helsinki
P.O. Box 10
Snellmaninkatu 12
00014 Helsinki • Finland
Tel: +358 9 19 12 46 18
Email: ilpo.helen@helsinki.fi

Professor Klaus-Peter Lesch

Director ADHD Program
Molecular Psychobiology
Department of Psychiatry and
Psychotherapy
University of Würzburg
Füchleinstrasse 15
97080 Würzburg • Germany
Tel: +49 931 201 77600
Fax: +49 931 201 77620
Email: kplesch@mail.uni-wuerzburg.de

Professor Trudy Dehue

Heymans Institute (DPMG)
University of Groningen
Grote Kruisstraat 2/1
9712 TS Groningen • Netherlands
Tel: +31 50 36 36 354
Fax: +31 50 363 6304
Email: G.C.G.Dehue@rug.nl
Email: august@web.nl

Professor Kenneth Hugdahl

Department of Biological and Medical
Psychology
University of Bergen
Jonas Lies vei 91
5009 Bergen • Norway
Tel: +47 55 58 62 77
Fax: +47 55 58 98 72
Email: kenneth.hugdahl@psybp.uib.no

Professor João Arriscado Nunes

Centre for Social Studies
Colegio de S. Jeronimo
School of Economics
University of Coimbra
Apartado 3087
3001-401 Coimbra • Portugal
Email: jan@ces.uc.pt

Professor Cordula Nitsch

Functional Neuroanatomy
Institute of Anatomy
University of Basel
Pestalozzistrasse 20
4056 Basel • Switzerland
Tel: +41 61 267 27 11
Email: cordula.nitsch@unibas.ch

Advisory Experts:**Dr. Cornelius Gross**

European Molecular Biology
Laboratory (EMBL)
Via Ramarini 32
00016 Monterotondo Rome • Italy
Tel: +39 06 90091 428
Fax: +39 06 90091 272
Email: cornelius.gross@embl-
monterotondo.it

Dr. Giovanni Frazzetto

BIOS
London School of Economics
Houghton Street
London WC2A 2AE • United Kingdom
Tel: +39 06 90091272
Email: g.frazzetto@lse.ac.uk

Dr. Scott Vrecko

ESRC Post-Doctoral Fellow
BIOS Centre
London School of Economics
Houghton Street
London WC2A 2AE • United Kingdom
Tel: +44 20 7107 5251
Email: s.vrecko@lse.ac.uk

ESF Liaison**Dr. Frank Kuhn**

Science

Ms. Caroline Eckert

Administration

Social Sciences Unit (SCSS)
European Science Foundation
1 quai Lezay-Marnésia • BP 90015
67080 Strasbourg cedex • France
Tel: +33 (0)3 88 76 71 42
Fax: +33 (0)3 88 37 05 32
Email: ceckert@esf.org

For the latest information
on this Research Networking
Programme consult the ENSN
website: www.esf.org/ensn

