

LAW & NEUROSCIENCE WINTER SCHOOL 2015
Schedule

Dates: 16-21 February 2015

Monday

9.30-10 am

Welcome session – Amedeo Santosuosso, Andrea Belvedere, Fabio Rugge

10-11 am

Introduction to the school: science and law, neuroscience and law – A. Santosuosso, Paul Catley, Gabriella Bottini, Barbara Bottalico

coffee break

11.30-1 am

Opening Lecture:

Dennis Patterson

Law and Neuroscience

Lunch

3-5 pm

Parallel sessions:

Law for non lawyers – Federica Coppola, Maria Laura Fiorina

Neuroscience for non-neuroscientist – Anna Sedda

5-5.30 pm

Q&A – plenary session

Tuesday

9.30-11 am

Brain imaging – Eraldo Paulesu

coffee break

11.30-1 pm

Cognitive neuroscience in criminal law – Anna Sedda, Gabriella Bottini, Federica Coppola

This session will provide students with an introduction starting from the historical development of cognitive neuroscience to its actual definition. The tight link between this discipline and the Law will be highlighted, framing particularly how cognitive neuroscience can change the perspective of the law and also *viceversa*. A general understanding of this topic will be reached through examples of cognitive neuroscience instruments and procedures application to the study of memory, emotions and degenerative brain damages that affect these functions. In the second part of the session, the critical questions that emerged for cognitive neuroscience when applied to the domain of forensic evaluation will be presented, together with the actual challenges that this interdisciplinarity poses. The legal issues deriving from the implementation of cognitive neuroscience in criminal law and procedure will be analysed and discussed. Special focus will be put on how cognitive neuroscience might potentially affect the existing legal doctrinal categories pertaining to culpability (e.g., the category of legal insanity), as well as how neuroscientific techniques might be used in criminal proceedings.

Lunch

2.30-3.30 pm

Criminal Responsibility in civil-law and common-law systems - Lisa Claydon, Maria Laura Fiorina, Federica Coppola

3.45 – 4.30 pm

Neuroscience in the courtroom – preliminary results of an international investigation into the use of neuroscience by defendants in criminal trials – Paul Catley

One of the classic areas where commentators have anticipated that neuroscience will be used in the courtroom is by those accused of criminal offences. Much has been written about how such evidence might be used and quite a bit has been written about a few high profile cases. However, until now there has been no systematic investigation into the use of such evidence by those accused of criminal offences. A team of researchers led by Nita Farahany in the USA, Jennifer Chandler in Canada, Katy de Kogel in the Netherlands, Calvin Ho in Singapore and Malaysia and Paul Catley and Lisa Claydon in England and Wales have now undertaken such a review. The session will look at a few of the main findings with particular reference to the findings from England and Wales.

4.45 – 5.45 pm

Sense of Agency: Legal and neurocognitive aspects – Lisa Claydon & Caroline Roediger

The sense of agency refers to the feeling of controlling one's own actions, and, through them, events in the outside world. This session looks at work funded by the Arts and Humanities Research Council which aims to investigate the parallelism between the sense of agency and the legal concept of responsibility.

Wednesday

9.30 – 11 am

Neurotechnology: possibilities and dilemmas – Pim Haselager

The combination of recent insights from neuroscience and artificial intelligence has led to the development of a variety of neurotechnologies that can affect the behavior of individuals. Brain reading and brain stimulation techniques can be used to detect cognitive processes (thoughts, mental capacities, moods) as well as influence them. Also 'closed loop' systems will be introduced, where both reading and stimulation techniques are combined within and between brains. Ethical, legal and societal implications will be discussed throughout.

11.00- 11.45 pm

Neurotechnology in the media – Daniela Ovardia

12.00 – 1.00 pm

Incidental findings in neuroimaging research – Caroline Roediger

Brain anomalies that are unexpectedly discovered in healthy research participants and are unrelated to the purpose of the study can be life-saving but can also lead to psychological distress and loss of insurance coverage. So how should they be handled? What duties belong to researchers? And what are the rights of participants?

Lunch

2.30- 3.15 pm

Neuroscience, Constitutional Law and Human Rights in Germany– Tade Spranger

3.15 – 4.00 pm

Neuroscience, Constitutional Law and Human Rights in Italy & US – Barbara Bottalico

4.00 – 5.00 pm

Neuroscience, Constitutional Law and Human Rights in Europe (art. 6,8 ECHR) – Paul Catley

Thursday

9.00 – 11.00 am

Neuroethics – Daniela Ovardia

coffe break

11.30-1 pm

Introduction to robotics – Pim Haselager & Pericle Salvini

Lunch

3 – 3.45 pm

Robotics & Law – Barbara Bottalico

4 – 5.15 pm

Intelligent artifacts and human rights - Amedeo Santosuosso

The Universal Declaration of Human Rights (1948) set the idea that human beings are the only beings endowed with reason and conscience, thus exclusively entitled to have fundamental rights and liberties (art.1). This view has been questioned by recent studies on nonhuman animals and by the most recent advances in neuroscience, artificial intelligence and evolutionary and learning robotics. New legal questions are raising, and the theoretical possibility to have consciousness (or, at least, some conscious states) in machines and other cognitive systems is gaining consideration. The possibility of rights and liberties of (totally or partially) artificial intelligent entities (such as robots and intelligent machines) is explored.

7 - 8.30 pm

Happy Hour Scientifico (café scientifique):

Presentation of the results of the EU project “Regulating Emerging Robotic Technologies in Europe: Robotics facing Law and Ethics” concluded in 2014. Presentation and discussion with the Robolaw team of Istituto Sant'Anna di Pisa

Friday

9.30 – 11.00 am

Neuroscience and behavioral genetics – Giuseppe Testa (TBC)

coffee break

11.30-1 pm

Evolution theory, synthetic biology, evolutionary law – Oliver Goodenough, Amedeo Santosuosso

Lunch

3-5 pm

Law and behavioral research – Oliver Goodenough, Eraldo Paulesu

Saturday morning

9.30-11.30 am

Final lecture

11.30-12 am

Closing session