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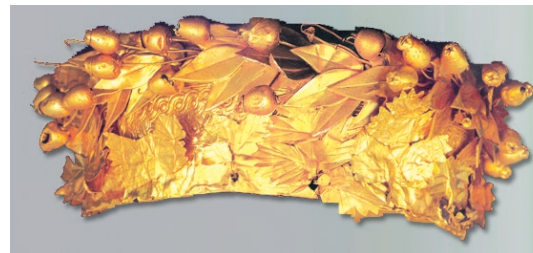
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Università
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CNR INOA



Consciousness and its Descriptors

Advanced Workshop
in the framework of COST
Action B27 "ENOC"



March, 27-28, 2009

Crotona
Italy
Hotel Lido degli Scogli

Consciousness is a key issue in science. Today, it attracts growing interest from scientists in neuroscience, medicine, physics, artificial intelligence, robotics, etc.; it is topical, mainly due to the rapid progress in the neuroscience of higher brain function and the diffusely perceived inadequacy of the traditional dualistic separation of mind and body. The issue is also crucial in methodological and bioethical controversies in medicine and public health. Much is known about the brain structures that appear to sustain consciousness and the damage of which results in severe impairment. However, consciousness and related terms remain ambiguously defined and inadequately characterized. Advanced functional techniques allow scientific investigation overarching a wide variety of conditions (from normal subjects to the severely brain damaged to coma, vegetative and minimal conscious states) and help disentangling the neuronal correlates of consciousness and pathological unconsciousness.

In this context, a proper definition of consciousness and an up-to-date scrutiny of its descriptors are due. The workshop is meant to

1. focus on the conditions characterizing consciousness and its impairment;
2. identify possible descriptors of these conditions;
3. scrutinize in full detail the possible role of electrophysiology in this field of research;
4. to set research guidelines for research; and
5. to disseminate cultural and research know-how in the framework of the COST B27 project (ENOC).

PROGRAM of the WORKSHOP

March 26

arrival at the hotel and welcome
buffet dinner

March 27:

8.30 Registration

9.00 Opening

J Pop-Jordanov (Skopje):

The COST Action B27 "ENOC"

WG Sannita (Genova/New York):

Purposes of a workshop on consciousness

SESSION I

Chairs: FT Arecchi (Firenze), F Babiloni (Roma)

9.30 GG Celesia (Chicago):

Consciousness and the neurosciences: facts and theories

10.30 - 11.00 coffee break

11.00 S Laureys (Liege):

Coma and disorders of consciousness

12.00 MM Monti (Cambridge):

Functional neuroimaging, brain function and impaired consciousness

Lunch

SESSION 2

Chairs: GG Celesia (Chicago), MM Monti (Cambridge)

15.00 F Babiloni (Roma):

Electrophysiological estimation of cortical activity and connectivity

16.00 AK Seth (Brighton):

Measures of consciousness

17.00-17.20 coffee break

17.20 WG Sannita (Genova/New York):

Oscillatory gamma activities and conscious perception

18.00 J Jordanova, V Kolev, U Wägl, R Verleger (Sophia):

Bringing implicit knowledge to consciousness: Different roles of early- and late-night sleep

Dinner

March 28

SESSION 3

Chairs: AK Seth (Brighton), P Morasso (Genova)

9.00 FT Arecchi (Firenze):

Dynamics of conscious brain processes

10.00 P Morasso (Genova):

Consciousness as the emergent property of the interaction between brain, body and environment

11.00-11.30 coffee break

11.30 J Pop-Jordanov (Skopje):

Substrates of attention and consciousness

12.30 G. Dolce (Crotone):

The vegetative state: a model?

Lunch

SESSION 4

Chairs: FT Arecchi (Firenze), R Meucci (Firenze)

15.00 Contributions

W Klonowski (Poland):

Complexity measures of brain electrophysiological activity in consciousness and physiological sleep

P Lanteri (Italy):

Neurophysiological assessment of vegetative and minimally conscious states

F Nijboer (Denmark):

Do complete locked-in patients fail to use a BCI because of extinction of thought?

F Riganello, M Quintieri, A Candelieri (Italy):

Heart rate variability: an index of brain processing in vegetative state?

S Kouider (France):

The behavioral and neural determinants of unconscious perception

17.00-17.30 coffee break

17.30 Round table

Farewell dinner