

Materialist mind

From Andy Clark,
University of Edinburgh, and
Daniel Dennett, Tufts University
We are amazed by the claim by
Mario Beauregard and Jeffrey
M. Schwartz that Andy Clark's
reaction to the claims of non-
materialist neuroscience betrays
a "fundamental lack of knowledge
of mind-brain interactions"
(29 November, p 23).

They claim that neuro-
imaging provides copious
evidence of minds changing
brains – for example, when a
subject's deliberate shift of
attention alters their brain state
in a way detectable by a scanner.

But this would lend support to
the proposition that minds are
non-material – in the strong sense
of being beyond the natural
order – only if we were to accept
the assumption that thoughts,
attending and mental activity are
not realised in material substance.

For if they are, then all we are
seeing is that one set of physical
changes can lead to another.
Their argument thus assumes
that which it sets out to prove.

Nor should we be surprised
that the mere impingement of
information can itself have an
impact on a physical system:
for that information, too, is
materially encoded and
materially transmitted. For
instance, there is nothing brutally
physical about the overdraft in
your bank account, but the
representation of that overdraft
is a material state that has plenty
of well-known effects, all without
benefit of immaterial minds.

We do not, of course, claim
that there are no interesting
problems facing a science of mind
and of conscious experience.
But the ability of physically
encoded information to bring
about physical changes in a
purely material system is not
one of them.

It is sad that, in their zeal to
find room for faith in a non-
material God, working scientists
are willing to bracket so much of
their own hard-won knowledge

in return for the comforting
shroud of mystery.
Edinburgh, UK, and
Medford, Massachusetts, US

War over the brain

From Manfred Velden,
Department of Psychology,
University of Mainz
Of course we should be alarmed
by the recent attempts to use
brain science as a vehicle for
spreading religious ideas
(25 October, p 46). But it is
scientists who today denounce
the abuse of science for religious
purposes who prepared the
ground for this new intrusion of
irrational ideas into science.

For decades they have
announced that we will soon
know "how the brain works", how
social behaviour, romantic love, a
sensitivity for irony, and so on are,
they typically say, "hard-wired
into our brains". It seems more
realistic, even for scientists not
inclined to invoke the
supernatural when things
become complicated, to assume
that even in 1000 years' time we
will not know how the brain
works, as the late Australian
neurophysiologist John Eccles
predicted we wouldn't.

The irritating discrepancy
between what brain scientists
and neuroscientists have been
announcing and what we actually
know is ideal for those who want
to introduce religious notions
into science, allowing them to
point to problems where scientific
"materialism" has "failed".
Mainz, Germany

The e-doctor is out

From Jackie Duckworth
I was very interested in your
article about "e-medicine",
but I was surprised to read that
patients with bipolar disorder
are "usually prescribed mood-
stabilising drugs and one-on-one
therapy" (8 November, p 24).

Not on the UK's National
Health Service, they're not. Even

the guidelines of the National
Institute for Clinical Excellence
say only that psychological
treatment should be "considered".
Mental health trusts in the UK
seem barely able to afford paper
clips, never mind psychologists.
Fulbourn, Cambridgeshire, UK

From Carol Stevenson
The potential for "e-doctors" to
manage mental health problems
is very interesting, but there is
a complication. People with
mental health problems are far
more likely than the general
population to live in poor
accommodation or be homeless,
and therefore far less likely to
have an email address or regular
access to a computer and suitable
conditions for using online
therapies.

There is little point in
designing a therapy that is
inaccessible to many of those
who need it the most.
London, UK



How warfare evolved

From Joshua L. Marshall
The ideas on the origins of
war that Bob Holmes reports
(15 November, p 8) are not part
of a "new theory". The idea that
warfare is primordial, innate
and adaptive pre-dates the
philosopher Thomas Hobbes's
The Leviathan (1660) and has had
steadfast supporters ever since.

The claim that, "for the first
time, anthropologists,
archaeologists, primatologists,
psychologists and political
scientists are approaching a
consensus" goes beyond
advancing the validity of the ideas

proposed: it presents the theories
as if they are uncontroversial and
omits any mention of the large
number of scientists in many
fields who disagree with these
notions about warfare. Two
critically acclaimed recent works
in this opposing camp, *Man the
Hunted* by anthropologists Donna
Hart and Robert Sussman, and
Beyond War by psychologist
Douglas Fry (reviewed 10 March
2007, p 49), come readily to mind.

The claims made incorporate
numerous fallacies. One is to
conflate aggression (both active
and passive), violence, feuding
and warfare: these, though often
related, are not necessarily
homologous or analogous either
to one another or to superficially
similar behaviours in non-human
primates. Another is to obfuscate
biological propensity – to assume
that because a behaviour is
"natural" it is also adaptive.

The overriding mistake is the
lack of a nuanced view of the
complex interplay between
biology, culture and the
environment. Assuming that a
behaviour is biological without
looking at context is just not
very helpful. Specific kinds of
subsistence strategies may make
warfare or peace more likely, just
as certain types of subsistence
can alter female fecundity, for
example. But just as humans
figured out how to lower fertility
to pre-agricultural levels through
cultural practices, we can also
learn to live in peace.
St Louis, Missouri, US

The march of tides

From Paul Whiteley
Jason Palmer's article on tidal
barrages was interesting but
missed a major issue (11 October,
p 35). Presumably, given its high
capital cost, a barrage is expected
to last for at least a century and
possibly longer. Its most basic
design parameter is head of
water, determined by tide height.
No one knows with any certainty
where sea levels are going to be
on these timescales.