

# Future of undergraduate psychology

Thirty-one psychology lecturers and other experts braved the snow late last year to gather at Chicheley Hall, a country house in North Buckinghamshire, to discuss the future of undergraduate psychology.

The future-gazing two-day retreat was the brain-child of Annie Trapp, director of the Higher Education Academy Psychology Network, and was convened jointly by her organisation, the British Psychological Society and the Association of Heads of Psychology Departments. The fruits of the conversations that took place have now been published as a report: *The Future of Undergraduate Psychology in the United Kingdom*, co-authored by Trapp together with Peter Banister, Judi Ellis, Richard Latto, Dorothy Miell and Dominic Upton.

The discussions and report were informed by an online survey of 450 psychology lecturers and students, and delegates also digested a reading list of materials including an American

Psychological Association publication released last year on the same subject (see [tinyurl.com/4y5gubb](http://tinyurl.com/4y5gubb)).

The report is a thought-provoking read for anyone with an interest in undergraduate psychology and it provides a number of recommendations for how the subject might change for the better.

A recurring theme is that the British Psychological Society and other parties need to do more to communicate the scientific rigour of the subject and the benefits it brings to students and their subsequent employers. 'We should get our own Brian Cox,' said one lecturer in the online survey.

There was near consensus that all degrees should contain research methods (including ethics) and the history of the discipline. But a tension was identified between the need to set core standards for the taught discipline, whilst also embracing innovation. One concern is



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that course modules can currently only contribute to the Graduate Basis for Chartership if they count towards the final degree awarded. For many degrees this means the final two years being overloaded with core content. However, course organisers should be aware that the core subjects required for BPS accreditation can be covered across modules, the report says; they don't have

## MORTON AND MILNER ELECTED AS ROYAL SOCIETY FELLOWS

Congratulations are in order for Chartered Psychologist and Honorary BPS Fellow Professor John Morton (UCL) and Professor David Milner (Durham University), both of whom were elected Royal Society Fellows in May.

The Royal Society described Morton as being at the forefront of psychology's information processing revolution in the 1960s, which moved the discipline out of behaviourism and into cognition. 'Morton is widely recognised as a pioneer of cognitive theories that explain and predict rather than describe and correlate behaviour,' the august institution said, before citing some of his most important contributions, including: the logogen model of word recognition, the concept of precategorical acoustic storage in short-term memory, and his demonstration of the importance to speech perception of P-centres in spoken syllables.

Morton told *The Psychologist* that of his substantive discoveries, P-centres ([tinyurl.com/6xkgjs5](http://tinyurl.com/6xkgjs5)) are probably his favourite, 'because it was essentially half a day's insight, and a very short paper! My regret is that we didn't patent it and make our fortunes.' He's also pleased that he managed to fit in work for the BPS, including 12 years on the Standing Press Committee, and another four as its chair. 'On the research side,' he said, 'I'm particularly proud of having developed a theoretical method through which I have been able to facilitate a number of students and colleagues, often in areas where I knew nothing at all about the content.'

For young researchers, Morton recommends thinking, building theory, accepting mistakes and aiming to falsify your own ideas. However, he said this depends on your circumstances: He enjoyed time,

space and stimulating colleagues at the Applied Psychology Unit and '...we weren't under the same insane pressure to publish that people find themselves under now,' he said. Among his current projects, he's investigating psychogenic amnesia, especially dissociative identity disorder.

Meanwhile, the Royal Society described Milner as a 'leading neuropsychologist of his generation', and mentioned his dual-pathway account of visual processing (a mainstay of the undergraduate syllabus and beyond). 'His meticulous study of ...neurological patients, supported by functional brain imaging, has confirmed a variety of counterintuitive predictions in the domains of action control, visual illusions and optic ataxia,' the Royal Society said.

Milner told *The Psychologist* that of his many career achievements, he was most proud of his book *The Visual Brain in*

*Action*, co-authored with his colleague Melvyn Goodale (their book *Sight Unseen* won the BPS Book Award in 2005; see their *Psychologist* article at [tinyurl.com/b3ktap](http://tinyurl.com/b3ktap)). For budding psychology researchers, Milner had the following advice: 'Work hard; apply for grants and write your work up, however many times your applications and papers are rejected; find able colleagues to work with; and take opportunities whenever they arise!'

Morton and Milner join a growing phalanx of psychologists elected to the Royal Society, including: Professors Nicola Clayton, Uta Frith, Lawrence Weiskrantz, Endel Tulving, Tim Shallice, Alan Baddeley, Chris Frith, and the late Richard Gregory.

There was also good news in May for Professor Eleanor Maguire of UCL who has been elected to the Academy of Medical Sciences. **CJ**

to be dealt with in isolation under traditional subject headings.

Another important message is that university teachers of psychology will need to adapt to an increasingly diverse student body, and to the notion of the student as customer (thanks to the shift to large, student-paid fees). They may find that students are increasingly motivated by personal and vocational advancement rather than intrinsic academic interest. The Western cultural bias of traditional course content may also begin to sit awkwardly in the context of a rise in non-Western students, and this will need to be addressed.

The idea of placement opportunities for students is encouraged, as is the concept of psychological literacy: 'It would, in the marketing speak we are supposed to be adopting, provide a brand name for communicating the potential contributions a psychology graduate can make to the workplace and to society more generally,' the report says. The publication also acknowledges the increasing role of web-based

technologies in the teaching of psychology, including the Society's own Research Digest ([www.researchdigest.org.uk/blog](http://www.researchdigest.org.uk/blog)). The idea of a new Digest that combines research findings from the domains of learning and teaching is mooted. In this vein, the report calls for more pedagogic psychology research findings to be fed back into the discipline to improve how it is taught.

'It is also worth pointing out that the coherence and consensus achieved by the thirty-one participants at Chicheley Hall demonstrate another important, albeit covert, theme: the benefit of collaboration across institutions and areas of interest,' the report concludes. 'It is reassuring that this occurred so effectively here, despite the government's determination to create the cut-throat competition of a market in higher education through student choice, loan funding and alternative providers. We all benefit from the strengthening of the discipline of psychology. Collaboration of the kind that produced this report can only help this process.' CJ

I Read the report at [tinyurl.com/4ynt966](http://tinyurl.com/4ynt966)

## THRIVING DOWN UNDER

The Australian Psychological Society (APS) has just celebrated reaching the milestone of its 20,000th member. The organisation started out as an overseas branch of the British Psychological Society in 1944 with just 50 members, before gaining independence in 1966. It now boasts nine specialist colleges, 40 regional branches and 40 interest groups devoted to various areas of psychology. Over the last five years, against a backdrop of increased interest in psychology from the government and public, they've grown by an average of 1000 new psychologist members each year.

Professor Lyn Littlefield, their Executive Director, said: 'The APS has thrived throughout its 66-year history, as community demand for the evidence-based expertise of psychologists has grown. From helping troubled individuals to boosting the performance of business leaders, APS members are a force in a huge variety of fields, ranging from government services to the corporate world and private practice to academia. This now 20,000-strong voice harnesses the expertise of a vast group of psychologists to enhance the health and well-being of Australians, and provides valuable insights on all psychological matters relating to our diverse population.' CJ

## Gossip influences vision

The kind of negative tittle-tattle that appears daily in the tabloids seems to bear little merit. But experts believe that historically, paying attention to such gossip played an important role in our survival chances, such that today negative hearsay continues to bias our visual system.

Eric Anderson at Northeastern University in Boston and his colleagues have shown this in a new study that paired photos of neutral faces with lines of positive, negative or neutral gossip, and presented these to 61 participants on-screen (*Science*: [tinyurl.com/4xy3ss6](http://tinyurl.com/4xy3ss6)). Typical lines of gossip were 'threw a chair at his classmate', 'helped an elderly woman with her groceries' and 'passed a man on the street'. Each face was paired four times with its

designated nugget of social information.

These faces were then presented in a binocular rivalry paradigm with pictures of houses. This means that using a piece of a equipment called a stereoscope, a face was presented exclusively to one eye and a house exclusively to the other, which would have led the two images to compete for access to the participant's conscious awareness. For the participants, a fluctuating perceptual experience would then have ensued, first one image seen, then the other, and back again until the trial finished after 10 seconds.

Participants were asked to

press a keyboard key to indicate which image they could see at any given time and Anderson's finding is that faces previously paired with negative gossip tended to dominate and be seen for longer, by more than half a second, than faces paired previously with positive or neutral gossip, or entirely new faces.



In case negative gossip was simply learned more effectively than the other gossip

types, a second study controlled for how well participants learned the initial face-gossip associations and the main finding was replicated. This

follow-up study also showed that neutral faces paired with negative gossip dominated in consciousness longer than neutral faces paired with non-social negative information, such as 'had a root canal performed'.

Anderson's team said it was easy to see the survival value in the brain prioritising the visual perception of people tagged with negative gossip, thereby allowing them to be seen for longer and for more information about them to be garnered. 'Our results... [show] that top-down affective information acquired through gossip influences vision,' the researchers said, 'so that what we know about someone influences not only how we feel and think about them, but also whether or not we see them in the first place.' CJ

## NICE GUIDANCE ON COMMON MENTAL HEALTH DISORDERS

Through its role as a partner in the National Collaborating Centre for Mental Health, the British Psychological Society has contributed to new guidance on the recognition and treatment of common mental health disorders. Issued by the National Institute for Health and Clinical Excellence (NICE), the guidance is aimed principally at health professionals, including GPs, working in primary care. The document brings together in one place advice from existing recommendations for different conditions, but there is a particular emphasis on increasing the recognition of anxiety disorders. If an anxiety disorder is suspected the new guidance advises GPs to use the 2-item General Anxiety Disorder Scale and to arrange further assessment if a high score is obtained. The scale asks patients how often over the last two weeks they were bothered by feeling nervous, anxious, or on edge, and how often they were unable to stop or control worrying. The new guidance is also accompanied by an educational slide set and other tools to help encourage uptake by GPs. [I www.nice.org.uk/guidance/CG123](http://www.nice.org.uk/guidance/CG123)

## WIKIPEDIA PROJECT

The Washington, DC-based Association for Psychological Science (APS) has launched a new initiative calling for its members to improve the standard of psychology articles on Wikipedia, the free online encyclopaedia ([tinyurl.com/3b6lpnl](http://tinyurl.com/3b6lpnl)). The organisation has created a dedicated portal to allow volunteers to contribute to the site, including tutorials and a system for matching people's interests and areas of expertise with the articles on Wikipedia most in need of work. The Association's President Professor Mahzarin Banaji of Harvard University has thrown her weight behind the initiative, and in a recent column she urged her colleagues to incorporate the idea into their teaching. 'My request,' she wrote, 'is that for any course that you are about to teach this semester and beyond, that you consider adding contributions to Wikipedia as part of the course's requirements.' The new APS Wikipedia portal includes sample assignments to help with this process. Banaji and her colleagues have recognised that the anonymity and collective nature of Wikipedia could deter expert contributors by preventing them from citing their efforts on their professional résumés. To address this problem the APS are planning a leader-board to recognise publicly those psychologists and students who are exceptional contributors.

# Insecurity and stress at work on the rise?

Stress and mental health remain taboo subjects in the workplace, according to a new campaign by Mind ([tinyurl.com/36wesw5](http://tinyurl.com/36wesw5)). For their 'Taking Care of Business' initiative, the charity commissioned the polling group Populus to complete an online survey of over 2000 people in employment in England and Wales. Among the stand-out results, 41 per cent said they felt stressed at work, two thirds felt under more pressure because of the financial downturn, yet one in five said they felt mentioning stress would risk being made redundant, and 41 per cent said stress was a taboo topic at work.

Mind estimate that British businesses lose £26 billion each year in sickness absence and lost productivity. With greater awareness and mental health support, they said businesses could save one third of these costs – 'a mammoth £8 billion a year'. The charity is calling for businesses to make cultural changes including treating mental health problems as they would treat physical problems; encouraging open and supportive work environments where mental health can be discussed without fear of discrimination; and for businesses of all sizes to make supporting staff well-being a priority.

Chartered psychologist and Honorary BPS Fellow Professor Cary Cooper (Lancaster University Management School) told us that mental health stigma at work had always been a problem, but that now it's even worse: 'Because of the downturn, people are feeling job insecure and more than ever they're frightened of admitting that they're not coping.'

Could psychology as a profession be doing more to help? 'I think our responsibility is to highlight that people can function perfectly well having bipolar disorder, having mild depression and so on; and that even if it's more serious, they can get treated and can recover; and the more we say that, the better,' Cooper said. 'Also, the more we can convey that it's not uncommon, the better. Twenty per cent of the people everybody is going to meet today will have suffered or are currently suffering from depression.'

In a related development, several social psychiatrists and mental health charity leaders wrote a letter to *The Guardian* in June ([tinyurl.com/3h7jd4f](http://tinyurl.com/3h7jd4f)) warning that planned changes to the benefits system 'will put people with mental health problems under even more pressure and scrutiny, at a time when they are already being hit in other areas such as cuts to services'. **CB**

# Green light for the elderly

Should older drivers be routinely screened for their fitness to drive? Not according to a new position statement from the European Federation of Psychologists' Associations, which concludes that age-based population screening is 'not only ethically questionable, but actually has greater economic costs than benefits for society, particularly when the proportion of the older population is increasing.'

Although screening of older drivers is used as a safety measure in most

European countries, the statement considers two problems with this. 'First, older drivers generally do not have increased accident risk that calls for the society to invest in a costly age-based population screening, and second, according to research literature, aged-based population screening does not succeed in producing the desired safety benefits.'

Indeed, the report argues that screening tends to take drivers, who would

never have ended up in an accident anyway, off the roads. 'These people potentially lose their independent mobility for no reason. This is

a serious issue as mobility has been linked to quality of life and psychological health.' **JS**

**I Read the report at [tinyurl.com/5vdkfb](http://tinyurl.com/5vdkfb)**



# Echolocation

Over the last few years it's become apparent that humans, like bats, can make effective use of echolocation by emitting click sounds with the tongue and listening for the echoes that result. Now a team led by Lore Thaler at the University of Western Ontario, and including Melvyn Goodale (see also 'Royal Society Fellows' item), has conducted the first ever investigation into the neural correlates of this skill (*PLOS One*: [tinyurl.com/44wgum2](http://tinyurl.com/44wgum2)).



Humans, too, can learn to use echolocation

Thaler and her colleagues first had to overcome the practical challenge of studying echolocation in the noisy environment of a brain scanner, in which participants are required to keep their heads still. The researchers established that two blind, experienced echo-locators, EB and LB, were able to interpret with high accuracy the recordings of tongue clicks and echoes they'd made earlier, and so this form of passive echolocation was studied in the scanner.

Among several remarkable new insights generated by the research, the most important is that EB and LB exhibited increased activity in their visual cortices, but not their auditory cortices, when they listened to clicks and echo recordings taken outside, compared with when they listened to the exact same recordings with the subtle echoes omitted. No such differential activity was detected among two age-matched, male sighted controls.

The finding suggests that it is the visual cortex of the blind participants that processes echoes, not their auditory cortex. This visual cortex activity was stronger in EB who was blind from an earlier age than LB, and is more experienced at echolocation. However the echolocation skill of both blind participants is remarkable. Both are able to cycle and they can identify objects, and detect movement. EB, but not LB, showed evidence of a contra-lateral pattern in his echo-processing brain activity, just as sighted people do with the processing of light. That is, activity was greater in the brain hemisphere opposite to the source of stimulation.

Just how the visual cortex extracts meaningful information from subtle echo sounds must await future research. The researchers best guess is that the relevant neurons perform 'some sort of spatial computation that uses input from the processing of echolocation sounds that was carried out elsewhere, most likely in brain areas devoted to auditory processing'. Establishing the functional role of the cerebellar processing that was also differentially activated by echo sounds in the echo-locators must also await future research.

'...our data clearly show that EB and LB use echolocation in a way that seems uncannily similar to vision,' the researchers concluded. 'In this way, our study shows that echolocation can provide blind people with a high degree of independence and self-reliance in their daily life. This has broad practical implications in that echolocation is a trainable skill that can potentially offer powerful and liberating opportunities for blind and vision-impaired people.'

If this research has piqued your interest in echolocation, a previous research paper on the topic by Antonio Martinez and his co-workers explained that anyone, blind or sighted, is able to learn the skill. In fact they said that after two hours practice a day for two weeks you should be able to recognise blindfolded whether there is an object in front of your or not. **CJ**

## RESEARCH FUNDING NEWS

The BBSRC and UK Sport have launched a call: **high performance sport as a model for the acquisition, retention and retraining of an individual's skill base**. This is to encourage basic research on understanding the biological and psychological basis of skill learning and retention. Understanding how skills are learnt, developed, applied, maintained and changed over time is important to both top athletes and the wider population. To promote multidisciplinary research, the ESRC will provide co-funding for applications that fall partly within its remit. For the full criteria, including the three challenges outlined in the call, see the BBSRC website. A meeting will be held in London on 5 July to allow the research community to gain more detailed information on the call and to discuss their ideas with the Research Councils, UK Sport and potential collaborators. The closing date for letters of intent is 10 August 2011.

[tinyurl.com/4y6ufnf](http://tinyurl.com/4y6ufnf)

The Welsh National Institute for Social Care and Health Research (NISCHR) has two fellowship schemes for postdoctoral researchers to build health and social care research capacity in Wales.

**NISCHR Social Care Fellowship Award** focuses on research into one of the priority policy areas: prevention and early intervention; integrated management of complex care; service organisation and delivery. Priority topic areas include children and families, mental health, learning disability, older people, justice, workforce and support for carers (see the website for a full listing). Applicants must have a PhD or other research-based professional doctorate in social care-related research; and have no more than 48 months of postdoctoral research experience.

**NISCHR Health Fellowship Award** focuses on building health research capacity. The priority policy areas are prevention and early intervention; chronic conditions management; and service organisation and delivery. Priority topic areas include: neuroscience/mental health, cancer and public health. Applicants must have a PhD, UK MD or other research-based professional doctorate in health-related research, have no more than 36 months postdoctoral research experience; and have been in direct receipt of NISCHR/WORD funding or a member of a NISCHR/WORD funding group or initiative.

Applicants must be from an institution or organisation based in Wales. For the full details of the fellowships see the guidance notes and application forms on the website. Closing date: 29 July 2011.

[tinyurl.com/3lyleao](http://tinyurl.com/3lyleao)

The Indian Council of Social Science Research in association with European funding institutions in France, Germany and the Netherlands and, in the UK, the ESRC, has launched an **Indian-European Research Networking Programme**. The scheme aims to promote the strengthening of the social sciences within and between the five countries. Proposals are welcome from all areas of the social sciences, areas of particular interest include: health and well-being, education and cognitive development and developing skills and human resources for the 21st century. Proposals must involve at least two established research groups on the Indian side and at least two on the European side. For the full criteria see the ESRC website. The closing date for application is 15 September 2011.

[tinyurl.com/438lb96](http://tinyurl.com/438lb96)

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