

## Government still favours regulation by HPC

**T**HE government continues to seek the regulation of applied psychologists, psychotherapists and counsellors through the Health Professions Council (HPC), the statutory body that currently regulates 13 health-related professions, including arts therapists and dieticians. The news came with publication of its White Paper in February: *Trust, Assurance and Safety: The Regulation of Health Professionals in the 21st Century*. In contrast to its position on psychology, the government has said pharmacy will be regulated by a new dedicated body, the General Pharmaceutical Council.

The White Paper indicates the government continues to assume that the majority of people providing psychological services do so in the health sector, particularly the NHS. In fact, as the Society has strived to communicate to government, most applied psychologists work in other sectors, including in business, education and forensic settings. That's why the Society has been campaigning, together

with eight other professional bodies, for the psychological professions to be regulated by a dedicated independent Psychological Professions Council.

The HPC has also failed to grasp the diverse roles played by psychologists and the relevance this has for the regulation of

### **'We are extremely concerned about contradictions in proposals outlined'**

psychology. In a press release it said it welcomed the White Paper's statement that 'counsellors, *health* psychologists and psychotherapists are to be regulated by the HPC' (emphasis added). But the government's White Paper states clearly that the HPC will regulate applied psychologists, which would include the large number who practise outside the health sector.

Society President Pam Maras said: 'The

BPS remains committed to the statutory regulation of psychology. However, our responses to government consultations have to date been largely ignored. We are extremely concerned about contradictions in proposals outlined in the White Paper and comments from the proposed regulator. Our only commitment is to public protection; we do not believe that what is currently proposed will provide this.' The President's negotiating team met at a swiftly convened teleconference in March to plan a response to the White Paper.

In a timely reminder of the need for the statutory regulation of psychologists, a man was jailed for five years in February, having worked as a bogus forensic psychologist for over 25 years. Gene Morrison acted as an expert witness on over 700 cases after buying false qualifications from a sham university. Pam Maras said: 'This is an interesting case, as under the latest proposals from the HPC it is unlikely that such a person would have been identified as bogus.'

CJ

## New Society journal out now!

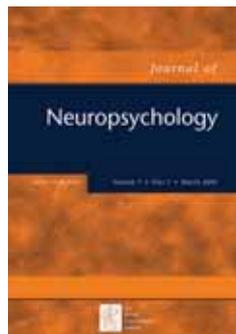
**T**HE first issue of the *Journal of Neuropsychology* was published by the British Psychological Society in March, and presented at the Society's Conference in York. The new journal is devoted to the study of brain-behaviour relationships. The focus is on studies of patients with brain dysfunctions, but this multidisciplinary field also incorporates contributions from developmental psychology, neurology, psychiatry, physiology, endocrinology, pharmacology and imaging science.

Journal editor Edward de Haan (Utrecht University) said: 'Neuropsychological research is buoyant, and the need for a journal that promotes theory-driven original research has already been demonstrated by some 75 submissions in the last six months. This first issue exemplifies the ambitions of this new journal – I think it's full of thought-provoking new insights.'

In the March issue, Della Sala and Cubelli propose a new explanation for mirror writing, a phenomenon that can be observed in young children as well as in

neurological patients. Next up Bonifazi *et al.* explore the effect of tool use on visual-tactile extinction in patients with right hemisphere lesions. They demonstrate that tool use provokes a change in the cerebral spatial representation of the hand.

There are three contributions in line with the recent trend to study the interaction between cognitive and emotional processes from a neuropsychological perspective. Kalbe *et al.* investigate affective and cognitive components of 'theory of mind' tasks. The role of emotional processes and consciousness in adolescent psychogenic amnesia is investigated by Reinhold and Markowitsch. Finally, Doninger and Bylsma study patients suffering from



Alzheimer's-type dementia with the traditional and the emotional Stroop tests, and observe a separate interference effect on the emotional Stroop.

Next up, McKenna and Bell describe a new test of fitness to drive following cerebral pathology, and Smith and co-workers put forward a new method for scoring organisational approach on the Rey-Osterrieth Complex Figure. Finally, in the 'Case study' category, Gozzi *et al.* present a patient with a selective short-term memory deficit, investigating whether STM is involved in decision making.

De Haan says: 'The *Journal of Neuropsychology* is off to a good start and promises to become a valuable source of information in this expanding field. The future is bright.'

JS

□ *Society members can subscribe to the new journal for just £20 (£15 student members). See [www.bpsjournals.co.uk](http://www.bpsjournals.co.uk); tel: 0116 252 9537; or e-mail [subscriptions@bps.org.uk](mailto:subscriptions@bps.org.uk).*

# Significant improvement

**T**HE way statistics are reported in psychology journals is showing signs of improvement, according to an analysis by researchers at La Trobe University in Melbourne. Geoff Cumming and colleagues investigated how reporting practices in 10 leading international psychology journals had changed between 1998 and 2006. Cumming's team focused particularly on whether the recommendations of the American Psychological Association's 2001 *Publication Manual* had been heeded.

The 2001 *Manual*, which featured input from statistics luminaries such as the late Lee Cronbach and Jacob Cohen, stated that confidence intervals (CIs) are 'in general the best reporting strategy'. Confidence intervals illustrate the range within which you would expect a true population value to lie given your data. The argument is that whereas null hypothesis testing only demonstrates the presence of an effect or not, CIs together with effect sizes show how large any observed effect is, and how precisely you can estimate it.

Cumming and colleagues' analysis found 3.7 per cent of papers published in 1998 reported CIs compared with 9.2 per cent in 2003–2004 and 10.6 per cent in 2005–2006. There was also a clear rise in the use of figures with error bars, from 11 per cent of papers in 1998 to 24.7 per cent in 2003–2004 and 37.8 per cent in 2005–2006. 'We were astonished and pleased,' Professor Cumming told us. 'The whole problem isn't solved but something has changed, people are perhaps more open to persuasion now about changing how stats are reported.' The most progressive journal was the *Journal of Experimental Psychology (General)* aided perhaps by the editors' posting of statistical advice on their website (<http://web.uvic.ca/jepgen/tips.htm>). Overall, however, little statistical advice was offered by journals, and null hypothesis significance testing continued to dominate.

In their analysis published in *Psychological Science*, Cumming and his colleagues argue it is urgent for psychology to change emphasis from the dichotomous decision making of null hypothesis significance testing to estimation of effect size. Indeed, Cumming told us misperceptions and misunderstandings will continue while null hypothesis testing

dominates. To illustrate this, he has contrasted the effect the two ways of reporting the same data can have on readers.

Imagine two studies investigating an effect of therapy. The studies have largely overlapping confidence intervals, but one reports a significant effect of therapy whereas the other does not. Cumming has found that readers presented only with null hypothesis significance testing tended to respond that there was clear conflict and disagreement between the two studies. By contrast, readers presented with the overlapping confidence intervals tended to say the findings of the two studies were fairly consistent. 'The response to the CIs is correct and justified,' Cumming said. 'Psychology should move towards an approach that asks not Does the therapy work? but How big is the effect of the therapy and how accurate is your estimate of that effect?, which gives you much more information that just – Is it significant?'

Professor Cumming's colleague Dr Fiona Fidler, also at La Trobe University, has studied statistical reform in other disciplines. For example, she has found that influential medical researchers in the 1970s and 1980s persuaded the International Council of Medical Journal Editors to adopt new conventions, including the use of confidence intervals, that led to improved practice by over 300 medical journals. Cumming believes that to achieve the same reform in psychology, we need 'more textbooks, more software, and more institutional leadership'.

From correspondence with nine editors conducted as part of their analysis in *Psychological Science*, Cumming's team have found that psychology journals editors are knowledgeable and supportive of statistical reform, but that they don't see the issue as a priority and they don't want to be prescriptive. 'The editors are mostly concerned with getting the best papers in their journals,' Cumming said. 'Meanwhile researchers are principally concerned with publishing in the best journals – so we currently have a circle of inertia.'

Last year the APA started the groundwork for a revision of its 2001 *Publication Manual*, which Cumming is hoping could provide the opportunity for further reform. CJ

## Are young girls increasingly sexualised?

**YES**, according to a new report from the American Psychological Association (see [www.apa.org/pi/wpo/sexualization.html](http://www.apa.org/pi/wpo/sexualization.html)). And the proliferation of sexualised images of girls and young women in advertising, merchandising, and media is harmful to girls' self-image and healthy development.

The APA Task Force studied published research on the content and effects of virtually every form of media. Sexualisation was defined as occurring when a person's value comes only from their sexual appeal or behaviour, to the exclusion of other characteristics, and when a person is sexually objectified, e.g. made into a 'thing' for another's sexual use.

According to Dr Eileen L. Zurbriggen, chair of the Task Force and Associate Professor of Psychology at the University of California, Santa Cruz, 'We have ample evidence to conclude that sexualisation has negative effects in a variety of domains, including cognitive functioning, physical and mental health and healthy sexual development.'

However, *The Psychologist* put it to Dr Zurbriggen that the vast majority of this evidence concerned women and idealised body image, rather than young girls and sexualisation. 'The Task Force name, and focus, was determined before we began our review of the literature,' Dr Zurbriggen replied. 'One of our recommendations is that more research be done in this area. Nonetheless, the focus of the report is on girls, and we review studies, interpret data, and draw on relevant theory with this population in mind.'

The report received considerable media attention. According to Zurbriggen, 'one aspect of some of the coverage that has been unfortunate is the attention to one specific example or another. We tried to make clear that the problem isn't one particular doll or TV show, but rather the saturation of these sorts of images and the absence of other images. For example, last year Kelly and Smith's study found that approximately three-quarters of all characters in G-rated US movies were male. Such movies are presumably a non-sexualised medium, so we're not seeing sexualised presentations. Unfortunately, we're also not seeing girls and women. So the message seems to be, if you're not sexy in a certain way, you don't exist.' JS

# Well-being in communities

I FELT privileged to attend a thought-provoking one-day event in February at the Society's London offices. The day, organised by the College of Fellows, 'Promoting Mental Health and Well-being in Communities: Psychological Perspectives' was very much a call for action, with speakers asking a range of critical questions about the role of psychology in meeting the needs of communities.

Sean Cameron welcomed delegates and observed that psychology is increasingly compartmentalised into micro-perspectives and in danger of 'losing the big picture'. He paraphrased a recommendation from the recent report on the role of his branch of applied psychology by stating: 'Educational psychologists should get out a bit more' (Farrell *et al.*, 2006). Out of schools and into communities to ask relevant and useful questions in line with Ignacio Martín-Baró's view that 'psychology must stop focusing attention on itself, stop worrying about its scientific and social status, and instead propose an effective service to the needs of the population'. Those with an interest in critical psychology will know that in 1989 Martín-Baró was taken into the quadrangle of the University of Central America in El Salvador and executed.

EDWIN MAYNARD/PHOTOFUSION

## Easterhouse – it's the living conditions that are 'mad'

The lack of influence psychology has in planning and policy was a constant refrain. David Fryer, from the University of Stirling, posed questions with calm and focused passion. These included How do we move away from a psychology that is part of the problem to being part of the solution? One suggestion is to develop a set of tools to challenge oppression – a psychology of transformation which is 'concerned with understanding people in the context of their communities, the prevention of problems of living, the celebration of human diversity, and the pursuit of social justice through social action' (Nelson & Prilleltensky, 2005, p.22).

The day perfectly illustrated the paradigm shift towards community, positive and critical approaches that reject deficit models, and one of the most moving contributions reminded us of the role of social conditions, such as mass unemployment, in undermining the mental health of communities. Cathy McCormack recounted her experiences on the Easterhouse township in Glasgow and the realisation that it was the living conditions that were 'mad' not her: 'It was bad enough living in a damp flat without getting the blame for it.' We psychologists can deliver CBT sessions to change cognitions, but unless we help communities change their living conditions we perpetuate the vicious circle that Cathy calls 'the war without bullets'.

Equally moving was the contribution of

Elaine Swift and George Black who shared their experiences of mental health problems through 'community activism': 'the deployment of the creative and performing arts...to challenge stereotypes and stigma about mental health' Their story was a triumph of love in the face of adversity and prejudice.

Serdar Degirmencioglu from Beykent University identified the 'big constructs' that need to be addressed by psychologists as culture, ethos, community, media and human rights. He recommended a developmental analysis that cuts across disciplinary boundaries and outlined his work involving young people in community programmes. His example of youth participation in a response to an earthquake was a perfect illustration of how psychologists can use tools such as coaching to support community aims and increase psychological well-being among participants.

Ed Cairns (University of Ulster) suggested that 'an end of conflict does not equal peace' and gave grounded examples of how psychology can inform policy; for example regarding the 'contact hypothesis', the idea that putting opposing sides together in a place will automatically solve problems. Policy makers 'jumped on' this approach; but contact alone is not enough, and other factors, such as knowledge of group status, must also be present. The implications for integrated schools were explored and conclusions reached regarding how politicians influence schools and children but this might not be an ideal way to encourage change. Adults also need to take responsibility for moving out of conflict and towards forgiveness.

The discussion groups and plenary session offered a welcome opportunity to reflect on the day and perhaps, most importantly, for delegates to plan how they can empower communities in meaningful and practical ways. *Miles Thomas*

## References

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- Nelson, G. & Prilleltensky, I. (Eds.) (2005). *Community psychology: In pursuit of liberation and well-being*. Basingstoke: Palgrave Macmillan.

## GRANT PROPOSALS AND PEACOCKS' TAILS

With funding competition fiercer than ever, do you find yourself spending increasingly more time justifying your merits in lengthy grant proposals? A contributor to *The Lancet* medical journal sees an analogy: 'Like the peacock's tail, these academic appendages are becoming ever longer and more brilliantly mesmerising with time.' One solution to 'the expenditure of so much energy on relentless self-promotion', proposes David Whiteman of the Queensland Institute of Medical Research, is for unique portable identifiers to be developed that could be linked via the internet to all the research activities of publicly funded researchers. He says this would provide 'a constantly updated and transparent record of research output' for those who need to know. What do our readers think? *CJ*

## Mental health and pregnancy

**T**HE National Institute for Health and Clinical Excellence (NICE) has issued guidance on the care and treatment of women with mental health disorders during pregnancy and in the first year after giving birth (see [www.nice.org.uk/CG45](http://www.nice.org.uk/CG45)).

The guideline is the first of its kind to make specific recommendations on the identification, treatment and management of all mental health disorders including anxiety disorders, depression and schizophrenia.

This guideline is an important step forward in improving healthcare professionals' understanding of antenatal and postnatal mental health disorders and

offering them guidance in both spotting the early signs of new conditions and encouraging women to discuss existing ones.

Dr Steve Pilling, Consultant Clinical Psychologist and a member of the guideline development group, said: 'Despite the fact that around 15 per cent of women have a mental health disorder in the antenatal or postnatal period, many women do not come forward because they are concerned they will be perceived as a bad mother. It is important that women know that there are a number of effective treatments available for mental health disorders.'

The patient representative on the group, Fiona Shaw, said: 'Having a baby is a time of huge change – emotionally, financially, socially and physically – and any woman can find herself needing help. Hopefully, this guidance will help women feel more confident that healthcare professionals will take their mental health symptoms and concerns seriously, rather than suffering with their difficulties in silence.'

FC

## RESEARCH FUNDING NEWS

Deafness Research UK are offering vacation scholarships to provide promising undergraduates with 'hands-on' experience of **research into deafness or a related field** during their summer vacation. Scholarships are available for up to eight weeks' work and offer a stipend of £175 per week. Applications are invited from potential supervisors within hearing research teams at UK universities or research centres.

□ Further details: [www.deafnessresearch.org.uk/Vacation+Scholarships+3015.twl](http://www.deafnessresearch.org.uk/Vacation+Scholarships+3015.twl)

The ESRC is offering the annual 1+3 and +3 Proposal (open) **Studentship Competition to support PhD study**. For the 2007 competition, there are approximately 100 studentships available. The deadline for the applications is 1 May 2007. The 1+3/+3 Nomination (quota) Studentships are also being offered. These are studentships that have been allocated directly to a department/school (outlets). Students interested in applying for a 1+3 or +3 Nomination (quota) should speak to the department where they wish to study. The deadline for applications is 8 May 2007. Students may only apply for either the Proposal (open) or the Nominated (quota) award.

□ Further details: [tinyurl.com.yw2xxl](http://tinyurl.com.yw2xxl)

The Alzheimer's Society are offering **PhD studentships to support postgraduate students who wish to pursue an academic career in the field of dementia**. Awards are for three years. Applications must be submitted by the prospective supervisor, a named prospective student is not required to make an application. The closing date for applications is 25 May 2007. The Alzheimer's Society also offer Research Fellowships for postdoctoral research. These provide funding for studies into the cause, cure or care for dementia.

□ Further details: [www.grd.alzheimers.org.uk/login.asp](http://www.grd.alzheimers.org.uk/login.asp)

The Big Lottery Fund offers grants to a wide range of projects. Those that may be of particular interest to the psychology community include:

**Mental Health Matters (Wales)** supports projects that promote the rehabilitation and independence of people with serious mental health problems; support for people at greatest risk of developing serious mental health problems and support for people at greatest risk of suicide. Applications can be made by voluntary and community organisations and public and private sector organisations.

**Family Learning (England)** supports projects that involve adults and children learning together to participate in and enjoy educational activity more; provide family members with more skills and knowledge (including confidence and effective communication); and assist parents and carers to interact positively with their children and support them in learning. Applications are welcome from a wide range of organisations including charities, schools and not-for-profit companies.

**Children's Play (England)**; this initiative is based on the recommendations of the 2004 play review 'Getting Serious About Play'. Organisations that have an interest in children's play should engage with their local authority about prospective projects.

**Playful Ideas (England)** also supports projects that focus on innovation and new ways of providing for children's play. Voluntary and community groups, the social enterprise sector, and town and parish councils can apply.

**Health Families: Child's Play and Way of Life (Wales)** seeks to support projects that promote healthy and active lifestyles amongst children and families by focusing on children's play, healthy eating and physical activity. Voluntary, community or public sector organisations can apply.

**Investigating in Communities (Scotland)** invests in initiatives including: Dynamic Inclusive Communities – to help build stronger more vibrant communities; Life Transitions – supporting projects that help people deal with change in their lives and encourage them to move on; Supporting 21st Century Life – to invest in projects that enable people to cope with new patterns of life and the pace of change communities are experiencing. A wide range of groups can apply for funding including charities, voluntary and community groups, local authorities, social enterprises or health boards.

□ Further details: [www.biglotteryfund.org.uk/index/apply.uk.htm](http://www.biglotteryfund.org.uk/index/apply.uk.htm)

**For a list of current funding opportunities go to [www.bps.org.uk/funds](http://www.bps.org.uk/funds). Funding bodies should e-mail news to Elizabeth Beech on [elibee@bps.org.uk](mailto:elibee@bps.org.uk) for possible inclusion.**

## Mystery solved?

**A** LARGE American parapsychology laboratory has closed after nearly 30 years of experimentation.

In a statement on its website, the Princeton Engineering Anomalies Research (PEAR) Lab states: 'After more than a quarter century of systematic empirical study of consciousness-related physical phenomena, it is our sense that many of the salient correlates of these intriguing anomalies have now been identified. There are many important questions still to be addressed, but these will require an even broader interdisciplinary approach to the topic.' Members of the disbanded Lab will become part of the International Consciousness Research

Laboratories consortium, based in New Jersey.

Professor Chris French, who heads the recently formed Anomalistic Psychology Research Unit at Goldsmiths College, University of London, said that within the parapsychology community and among informed sceptics, the PEAR research was respected. 'I wasn't convinced, but I was intrigued,' he told us.

According to French, while UK parapsychology research is booming, American researchers are struggling for funding. French said the health of UK parapsychology was thanks largely to the late Bob Morris, who in 1985 became the inaugural holder of the Koestler Chair of Parapsychology at Edinburgh University (see [www.bps.org.uk/r8zb](http://www.bps.org.uk/r8zb)). *CJ*

## Palliative care

**T**HE second reading of the Palliative Care Bill in the House of Lords saw reference to psychologists and the British Psychological Society. Baroness Emerton quoted Dr Christine Kalus, consultant

appropriate assessment interventions for the individual patients, their families and following death for the bereaved as appropriate.'

Kalus had pointed to an assessment being developed in the UK by clinical psychologists based on work in the US – the Distress Thermometer (DT). The aim is to help individuals name and rank their distressing symptoms across a number of domains including spiritual, social, psychological and physical. 'Preliminary results show that the DT is enabling nursing and medical staff to move into domains that they would previously have found difficult,' said Dr Kalus, 'and also to make more appropriate referrals to the relevant other professionals.' *JS*

□ *The transcript is available at [tinyurl.com/2lxzvx](http://tinyurl.com/2lxzvx).*

clinical psychologist and chair of the Society's working party on end-of-life issues. Kalus said that it is 'imperative that psychologically trained practitioners are part of the core multi-professional team to offer guidance, support and supervision to the staff and also

## Loneliness and Alzheimer's

**W**HEREAS past research has found objectively measured social isolation is a risk factor for developing Alzheimer's disease, a new American study has controlled for social isolation and looked instead at how lonely participants actually felt. Robert Wilson and colleagues (Rush Alzheimer's Disease Center) followed 823 older adults, all

dementia-free at the start of the study, for up to four years. During that time 76 of the participants developed Alzheimer's disease. Crucially, those participants who reported feeling the most lonely were twice as likely to have developed the illness. The findings are published in the *Archives of General Psychiatry*. *CJ*

## Bad apples at work

**A**T WORK it's all too easy for a single negative team member to have a disproportionately bad effect on the whole group – for a single bad apple to spoil the barrel, so to speak – according to a literature review by researchers at the University of Washington Business School.

Writing in the latest volume of *Research in Organisational Behaviour*, Will Felps and colleagues identified three key ways that a team member can exert a negative influence: by withholding effort; by having negative mood and morale; and by violating interpersonal norms, for example by making inappropriate religious or ethnic remarks. If other team members have the power and confidence to do so, such behaviours are most successfully reacted to either by attempting to motivate the negative person or by rejecting them from the group. However, the literature suggests that all too often the reaction of the rest of the team is one of defensiveness, including acts of revenge, seeking distraction or even lashing out, all of which ultimately lead to members withdrawing from the group.

According to the analysis, a team member who fails to make enough effort can provoke feelings of inequality

among other group members; a member with negative mood can spread their poor morale throughout the group; while the violation of interpersonal norms usually undermines trust. The extent of these negative effects is moderated by the intensity of the negative team member's actions and behaviour; by the group's interdependence; by whether or not the group succeeds in its goals; and by individual team members' coping abilities.

Lead author Will Felps told *The Psychologist*: 'The lesson of this research is that, in the workplace, "bad is stronger than good". We pay attention to, ruminate on, gossip about, and feel more impactfully the interactions that we have with negative people. As such, companies should take the "bad apple" problem seriously.'

Felps said that while managers often pay an inordinate amount of attention to employees' technical skills and the hours that they work, they rarely measure (or even recognise) the degree to which someone undermines their fellow workers. 'Paying more attention to the negative social dynamics produced by "bad apples" can be one of the smartest ways to improve the bottom line,' he told us. *CJ*

## Collaboration between Society and EMAP

**H**UNDREDS of thousands of people are being given the chance to learn how psychology can improve well-being and quality of life thanks to a new venture between the Society and the magazine publisher EMAP.

Featured in March's edition of *Top Santé* magazine is a 28-page supplement – Happy New You – a commercial but ad-free publication produced with direct input from the Society. This is the first opportunity the Society has had to shape editorial and provide exposure of psychology to an audience that would otherwise be hard to reach. It is hoped the publication will reach more than 443,000 readers, predominantly women aged between 30 and 50 years of age.

The supplement is set to be produced twice-yearly and is specifically aimed at the consumer market, rather than



practising or academic psychologists, thus allowing the Society to honour its obligations under the Royal Charter to actively engage with the public.

The Society is covering the print costs, and staff and members have been working closely with *Top Santé* writers to ensure the copy within the supplement is of the highest quality. It aims to reflect, via the expertise of members, the

best of what the discipline has to offer.

Graham Powell, a member of the editorial advisory group, said: 'Every piece in the supplement has started by finding the right and best expert, and writers have also been supplied with the latest research.'

'In addition to the use of our experts, we are showing our association in various other ways, including providing information boxes linking to

our website and stating in the editor's letter page how seriously we take our responsibility to develop, promote and apply psychology for the good of readers and the public in general.'

Topics covered in the supplement include how to beat stress, learning to know your children, men's emotions and how to deal with traumatic life events.

*Top Santé*, which is the market leader in its sector, will fully research the success of the supplement with its readership but initial feedback from staff on the magazine is that the expertise of members has been 'fantastic'.

The project will be reviewed again after 12 months and if successful will run for two years, after which time it will be known if a stand-alone 'psychology magazine' could be commercially viable. *SR*

## Bionic eye restores vision

**S**IX blind patients have had their sight partially restored by an artificial retina connected to a camera via a pocket-sized video-processing system. Mark Humayun and colleagues at the University of Southern California announced the results at the American Association for the Advancement of Science in February.

The implant's 16 electrodes activate ganglion cells in the retina. From there the visual information is carried down the optic nerve to the brain and ultimately onto the visual cortex. The results have far exceeded the researchers' modest expectations that the patients would develop a sense of light and dark. 'We have found that the devices are

indeed electrically conducting and can be used by patients to detect light, movement, or even distinguish between objects such as a cup or plate,' Humayun said.

The researchers described the bionic eye as akin to looking at the world through a small four-by-four array of pixels. 'One of things we found out is that with time and use, the brain is able to fill in a lot of the visual information that's not provided by the implant,' Humayun told *The Guardian*.

However, to Frans Cornelissen, an expert on visual perception at the University of Groningen, The Netherlands, the idea that the brain is able to extract useful information from an array of 16 'dots' is less of a

surprise. He told us: 'While it appears that we see everything in great detail, it's only a very small fraction of our retinae – the fovea – that actually provide high resolution information; most of what we see at any one instant is sampled very sparsely. The retinal implant provides information that may be comparable to what you and I perceive in the periphery of our eyes. And while you can't see any detail, our peripheral vision is certainly useful for navigation, motion sensing, and recognising larger objects.'

Cornelissen also noted that the patients' visual experience may be much richer than one would first imagine. 'By moving their eyes around, the patients would have been able

to take several 16-dot snapshots of the environment, so the resulting fused percept is most likely more informative,' he said. But to the extent that the patients' brains are indeed 'filling-in' missing information, Cornelissen added this may be quite comparable to the filling-in that takes place in the blind spots that we all have, where the optic nerve leaves the eye.

In the next phase of their research Humayun's team plan to test a retinal implant with 60 electrodes rather than 16. The hope is that the device will soon be available commercially, bringing restored sight to many people who are visually impaired by diseases like age-related macular degeneration and retinitis pigmentosa. *CJ*

## Health, inequality and intelligence

**T**HE *British Journal of Health Psychology* has published responses to its controversial 2006 article by Dr Satoshi Kanazawa (London School of Economics).

In the original article, Kanazawa concluded that variations in national income inequality have no effect on life expectancy once variations in national IQ are taken into account; it is the latter, according to Kanazawa, that more adequately account for national variations in health. However, according to the analyses reported, for countries in sub-Saharan Africa, it is income inequality, not IQ, that appears to be the best predictor of health outcomes. Kanazawa explains this via his Savanna principle, associating novel environmental and health challenges with 'modern life', requiring 'intelligent' solutions and thus favouring those with high IQs. In contrast, by implication, more traditional challenges characterise ancestral environments, such as, purportedly, sub-Saharan Africa; their solution does not favour intelligence.

In an editorial in the May issue of the *British Journal of Health Psychology*, the editors note that 'the article went through the usual peer review process, which concluded that its analytical methods, regression mainly, were sound'. They argue that 'it is not and should never be part of the remit or practice of peer review to select out manuscripts on the grounds that they maybe controversial or their message problematic for some current consensus'.

In the first response, Richard Wilkinson

(University of Nottingham) and Kate Pickett (University of York) argue strongly against the view that IQ is primarily determined by genetics. They point out that Kanazawa ignored the 'Flynn effect': evidence for huge rises in the average IQ of populations over time, and the argument that the rises in IQ represent a kind of modernisation of the human mind driven by industrialisation and the advance of scientific thought. The authors ask: 'Are we really to believe that in the 30 countries included in Kanazawa's data set for which average IQ is 75 or below, that the average person is borderline genetically mentally retarded?... To believe that would itself be idiotic and is a reason why Kanazawa's paper should not have been published in the form in which it was.' They also take issue with the analysis itself, saying that 'income inequality and IQ should not be simultaneously entered into a regression model and interpreted as if they were components of quite independent pathways to health'.

Tom Dickens (University of East London) and colleagues take issue with Kanazawa's 'Savanna principle', arguing that not only is it an old idea but that he applies it in a fundamentally flawed manner. 'Is Kanazawa seriously saying that the human brain has difficulty in comprehending the advantages of running water, windows and heating mechanisms?' They also argue that Kanazawa's 'unquestioning reliance on IQ data obtained from Lynn and Vanhanen' is a major flaw,

because that data is 'grossly inadequate for two reasons: first, the sampling is sketchy at best and ludicrously insufficient at worst; second, the calculations of mean values from multiple samples and the method of adjustment to account for the "Flynn effect" are both fundamentally inadequate.'

Reanalysing Kanazawa's dataset using measures of literacy in place of national IQs, David Marks (City University) found that literacy measures are highly correlated with alleged differences in national IQ. The measure of literacy together with economic development and income inequality controlled at least 59–64 per cent of the variance in national life expectancy at birth.

Demissie Alemayehu (Columbia University, New York) and Tilahun Sineshaw (Ramapo College of New Jersey) accuse Kanazawa of a 'failure to present competing views with fair balance, use of samples of convenience to draw conclusions about populations, tests of significance when there is no theoretical basis to do so and the confounding of association with causation'. Finally, George Ellison (St George's, University of London) highlights the 'ecological fallacy', that national-level relationships in IQ scores, economic indicators and health variables between countries reflect individual-level causal relationships within countries.

Kanazawa has been invited to respond, and the journal editors suggest 'that the debate engendered and the responses provoked contribute to, rather than detract from, the academic health of the nation.' *J*

## Childhood disorders on the rise

**T**HE number of children in Denmark diagnosed with autism, hyperkinetic disorder and Tourette's syndrome increased significantly between 1990 and 2004, according to a study in the February issue of *Archives of Pediatrics & Adolescent Medicine*. No such rise was observed for obsessive compulsive disorder. The finding suggests the rise in autism diagnoses in the UK and elsewhere observed by previous studies (see News, September 2006), may reflect a more general phenomenon across child neuropsychiatry.

Hjördis Osk Atladóttir and colleagues at the University of Aarhus looked at the

medical records up to 2004 of all 669,995 children born in Denmark between January 1990 and December 1999. They took advantage of the comprehensive records stored by Denmark's free healthcare system, aided by the fact there are no private psychiatric hospitals in the country.

The researchers said: 'The debate surrounding explanations for the increase in autism occurrence should also consider the evidence of a more widespread epidemiological phenomenon across different diagnostic conditions.' Their study was unable to address the reasons for the increases in these diagnoses. *CJ*

**E**MERITUS professor William Yule, Founding Director of the Child Traumatic Stress Clinic at the Institute of Psychiatry, has been awarded the 2007 Aristotle Prize by the European Federation of Psychologists Associations.

The Selection Committee noted that Professor Yule has worked for 35 years as a world-renowned clinician and researcher, and that he is internationally recognised as having made major contributions to clinical psychology across a broad range of areas. Much of Professor Yule's work in the last two decades has a distinctly European flavour.