

# Is childhood the starting point for a life

Crime could be substantially reduced if more effort and resources were spent on alleviating or preventing childhood conduct problems. So argues a new report by the Sainsbury Centre for Mental Health (SCMH), *The Chance of a Lifetime* (<http://bit.ly/7Rc64R>).

The report says that around 80 per cent of crime is committed by a minority of individuals who display mild to severe conduct problems in childhood and adolescence. Given that the risk factors for conduct disorder are well known and that there is good evidence that early interventions – including early parenting programmes – can help, the report argues that interventions should be made more widely available.

The report cites a raft of evidence to support its case, including longitudinal research conducted for SCMH earlier this year by the psychologists Marcus Richards of the MRC Unit for Lifelong Health and Ageing and Rosemary Abbott of the University of Cambridge (<http://bit.ly/6LQQVm>). Their tracking of three British cohorts born in 1946, 1958 and 1970 showed

that people who exhibit severe conduct problems in adolescence are four times more likely to be arrested in adulthood and three times more likely to have a court conviction.

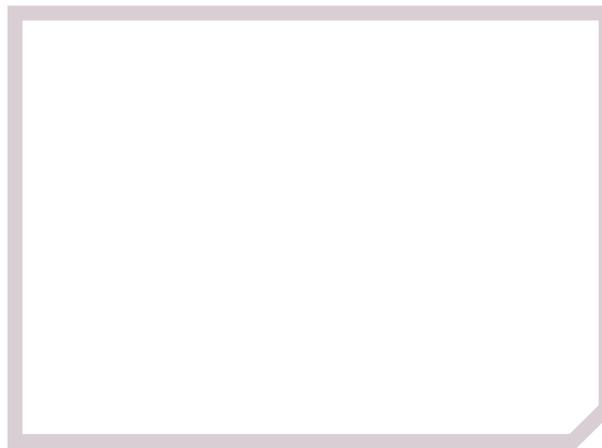
The report also cites the Cambridge Study in Delinquent Development, led by BPS member David Farrington of the University of Cambridge, which in 1961

of the sample had received a criminal conviction. Crucially, however, just 7 per cent of the sample were responsible for over half of all convictions, with those first convicted at a younger age tending to have the most convictions and the longest criminal careers.

Dr Farrington's research is also cited in relation to interventions designed to prevent future offending. A 2003 meta-analysis Farrington conducted with Brandon Welsh looked at 40 evaluation studies and found that on average the programmes reduced future offending by nearly a third (<http://bit.ly/5EOWPV>).

Sainsbury Centre joint chief executive Sean Duggan said: 'In the UK, just 1 per cent of the annual law and order budget would fund a comprehensive programme of pre-school support for up to one third of all children born each year. Early intervention of this kind will not just reduce the risk of future offending but give young children being born today the chance of a better life.'

A complicating issue, mentioned in the report, is that although children with severe conduct problems are responsible for a strikingly



began tracking the conviction patterns among 411 eight-year-old boys living in south London (<http://bit.ly/5SqrA>). By the time they were aged 50, 41 per cent

## Sleep-related automatism

When Briton Brian Thomas killed his wife by strangulation on holiday in 2008, he was asleep and not in control of his actions. In the official jargon, he had experienced a sleep-related automatism. That was the verdict of expert witnesses for the prosecution and defence in a trial that concluded in November. Consequently, the judge told Thomas that he bore no culpability for his wife's death.

Chartered Psychologist Dr Chris Idzikowski of the Edinburgh Sleep Centre acted as an expert witness for the defence and was responsible for conducting tests to find out whether Thomas had a sleepwalking disorder. He told *The Psychologist* that sleep disorder centres are getting better at identifying individuals who are likely to have sleepwalked but that difficulties can arise with infrequent sleepwalkers or dubious claims of sleepwalking.

Idzikowski explained that cases are examined on two levels – '(a) examining the detail of the alleged offence and whether it is compatible with other cases and (b) an examination of the individual to assess whether they are suffering from a sleepwalking disorder, or disorders associated with sleepwalking, and whether they have the 'triggers' for sleepwalking'. He also told us that apart from straightforward recordings, 'procedures

also now can include recording after sleep deprivation or acoustic provocation after sleep deprivation'.

This focus on noise triggers and sleep deprivation comes after a study published in 2008 showed that sleepwalkers are particularly prone to somnambulistic episodes when disturbed after a period of sleep deprivation. Mathieu Pilon and colleagues at the Centre d'Étude du Sommeil in Montreal tested 10 sleepwalkers and 10 controls and found that all the walkers, but none of the controls, sleepwalked when disturbed by a buzzer after 25 hours of prior sleep deprivation (*Neurology*; <http://bit.ly/8Q8cPk>).

However, Idzikowski added that research in this area is largely going through a consolidation and review stage rather than there being any recent breakthroughs in understanding. Indeed, the overall incidence of sleepwalking is still unknown. 'If night-staff at hotels are a guide,' he said, 'it's possible that anyone who is tired, partially sleep-deprived and has had some alcohol, may be triggered into a sleepwalking episode (like going to the loo but walking out of the hotel room) – if these individuals are involved in an incident, we may not find any sleepwalking disorder.' □

## of crime?

disproportionate percentage of crimes in adulthood, it still remains the case that the vast majority of crimes are committed by adults who as children displayed only moderate, 'sub-clinical' conduct problems. 'A possible implication,' the report says, 'is that preventive efforts should apply across the full range of a risk factor rather than being concentrated on the clinically significant extremes.'

In a separate research report, adult proclivity for committing crime has been traced back to fear-based learning as a toddler. A longitudinal study in the *American Journal of Psychiatry* (<http://bit.ly/6JlIsd>) by Yu Gao and colleagues caught up with about 1800 Mauritian three-year-olds who'd had their fear response measured back in the 1970s. Researchers had observed the children's sweat response to a sound paired with a loud, unpleasant noise. By the time the cohort were aged 23, 137 had acquired a criminal record. Crucially, compared with their peers, the offenders had shown a reduced fear response as toddlers. The authors said: 'Poor fear conditioning early in life implicates amygdala and ventral prefrontal cortex dysfunction and a lack of fear of socializing punishments in children who grow up to become criminals.' ☐

## WELL-BEING AT WORK

Mental well-being in the workplace is the focus of the latest psychology-related guidance to be published by the National Institute for Health and Clinical Excellence (NICE). Over 13,000,000 working days are lost annually because of work-related mental health issues, the guidance says, costing the UK economy over £28 billion.

The recommendations given in the guidance, which was published in November, include: flexible working hours where possible; improved line management through supportive leadership styles providing feedback and motivation; routine monitoring of employee well-being; and a workplace culture that reduces the potential for mental health-related stigma. A number of psychologists helped produce the new guidance, including Professors Susan Michie, Cary Cooper, Ivan

Robertson and Dr Peter Kelly.

Michie, who is at the BPS Centre for Outcomes Research and Effectiveness at University College London and member of the Public Health Interventions Advisory Committee at NICE, said: 'Workplace mental well-being is important both for staff and the organisation's productivity. Some of the key features relevant to all employers include the need to provide employees with the necessary levels of support, praise, control over their work and constructive feedback. The guidance also highlights the need for good communication between employees and their managers and the need to treat people as valued individuals.'

As well as providing recommendations for workplace practices, the new guidance also identifies a number of gaps in the existing evidence base.

These include: a dearth of quality UK-based research on organisation-wide approaches that aim to improve employee well-being; a lack of validated measurements for recording employee well-being; and a lack of research on the potential costs and benefits of introducing organisation-wide measures for promoting employee well-being.

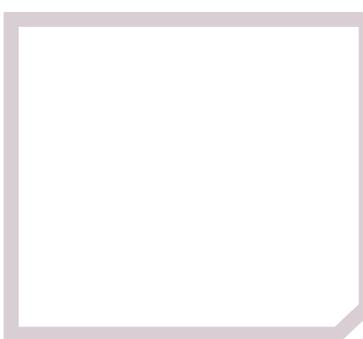
Publication of the new guidance coincided with the launch of a new website, aimed at stressed workers, produced by the national anti-stigma programme Time to Change (<http://bit.ly/12zWRD>), and with an announcement by NHS employers of its Open Your Mind campaign, which aims to improve the working environment for NHS staff (<http://bit.ly/3ZaGnn>). ☐  
**I The NICE guidance is at <http://guidance.nice.org.uk/PH22>**

## Don't care too much for money

Psychological therapy is at least 32 times more cost-effective at increasing happiness than money (in press; *Health Economics, Policy and Law*). That's the striking conclusion of Christopher Boyce at the University of Warwick and Alex Wood at the University of Manchester, after they compared longitudinal data on the effects of psychological therapy and various life events, including bereavement and lottery wins, on subjective well-being.

Citing data published in the *BMJ* (<http://bit.ly/70ks5A>), the pair argue that cognitive behavioural therapy and non-directive counselling alleviate

psychological distress by one and a half standard deviations, at a cost of £800 over four months. The psychologists go on to say that to achieve this effect with money would require 'somewhere in the region of £179,000 to £292,000 of extra income every year' based on longitudinal data gathered from the British Household Survey, published recently by economists (e.g. see <http://bit.ly/6GTQLe>). Boyce and Wood further argue that this has relevance for the



**Psychological therapy is much more likely to increase happiness**

compensation awarded in tort law, whereby claimants are given money to compensate

for the effects of traumas such as bereavements and injuries. 'Currently monetary compensation seems to be unquestionably taken in law courts as the only way of helping an individual overcome psychological distress after a traumatic event,' they write. 'The values currently offered as compensation are arbitrary ... and, according to economists' subjective well-being equations, should actually be much higher ... . Rather than giving individuals more income to cope with distress it seems sensible to consider other alternatives such as psychological therapy.' ☐

# Pain relief and pleasant pictures

Next time you're due to undergo a painful procedure at the dentist, try packing a photo of your partner. Psychologists at the University of California have shown that people's subjective experience of pain is reduced when they're looking at a picture of a loved one (*Psychological Science*, <http://bit.ly/6n7d6i>).

Sarah Master and colleagues recruited 25 women who'd been with their current boyfriend for at least six months. They then repeatedly applied 6-second-long thermal stimulations to the left forearm of each woman. Crucially, the women's ratings of discomfort were reduced when they were looking at a picture of their boyfriend or were holding his hand, compared with looking at a male stranger's photo, holding a male stranger's hand, holding a squeeze ball, or looking at a chair or cross-hair.

This apparent pain-relieving effect is not explicable merely in terms of distraction. Alongside the pain reports, the researchers also tested the participants' reaction times to a series of beeps and found the women were just as quick to respond when looking at their boyfriend's picture or holding his hand versus the other conditions. Master's team surmised that the analgesic effect works by priming mental representations of being loved and supported.

'These findings challenge the notion that the beneficial effects of social support come solely from supportive social interactions and suggest that simple reminders of loved ones may be sufficient to engender feelings of support,' the researchers concluded.

Coincidentally a separate team of researchers at the University of Montreal have just published the results of their investigation into what's going on in the brain when emotions modulate a person's experience of pain (*PNAS*; <http://bit.ly/6UNFQG>). Mathieu Roy and colleagues scanned the brains of 13 participants receiving mild electric shocks whilst simultaneously looking at pleasant, unpleasant or neutral pictures. The researchers also recorded muscle activity in the leg that received the shock. This was so they could tease apart neural activity associated with the different aspects to emotional pain modulation, part of which has to do with interpretation and context and a further

aspect that has to do with the brain modulating incoming pain signals arriving from the spine.

As expected, pain perception was greater when participants looked at unpleasant pictures, such as mutilations, versus neutral pictures, such as household objects. Similarly, pain was reduced when looking at pleasant pictures, such as of erotic couples.

Regarding neural correlates, a key finding was that activity in the insula – a brain region known to be involved in representing bodily states – covaried with changes to pain perception brought about by the sight of the different pictures. This suggests the insula is involved in providing the emotional context within which a pain is felt. By contrast, activity in the thalamus (the brain's relay station), the amygdala (involved in emotional learning) and several prefrontal areas, were involved in 'top-down' modulation of the incoming pain signal, as revealed by effects on the muscle reflex in the leg. Roy's team also conducted connectivity analyses, which revealed a further raft of regions also involved in the emotional modulation of pain, including prefrontal, temporal and brain stem structures.

'Altogether,' the researchers concluded, 'the multiplicity of mechanisms underlying the emotional modulation of pain is reflective of the strong interrelations between pain and emotion, and emphasises the powerful effects that emotions can have on pain.' **CJ**

## BOOK PRIZE

A book about the experience of caring for someone with Alzheimer's disease has won the inaugural £25,000 Wellcome Trust book prize. *Living with Nancy – A Journey into Alzheimer's* (Short Books) by Andrea Gillies beat a shortlist of five others: *Illness: The Art of Living* by Havi Carel; *Tormented Hope*, a book about hypochondriasis by Brian Dillon; *Intuition*, a novel by Allegra Goodman; *Three Letter Plague*, by Johnny Steinberg; and the novel *Cutting for Stone* by Abraham Verghese. The winner was announced at a ceremony in November. Jo Brand, comedienne and former psychiatric nurse, was chair of the judging panel. She said: 'Andrea Gillies' account of living with Alzheimer's is the perfect fusion of narrative with enough memorable science not to choke you. It's a fantastic book – down to earth and darkly comic in places. The judges found it compelling.'

## CONSULTANT

The ME Association have appointed Dr Ellen Goudsmit, a BPS Fellow, as a consultant on psychological issues. Ellen is a registered health psychologist and Visiting Research Fellow at the University of East London with a background in medical and psychological research. She introduced the concept of psychologisation (emphasis on psychological factors where there is little or no evidence to justify it) and devised the strategy of pacing for ME.

## Online impact

The online publisher Public Library of Science has started to include online usage data with published articles (see [www.plos.org/cms/node/485](http://www.plos.org/cms/node/485)). Mark Patterson, Director of Publishing, said: 'We at PLoS feel that there is much to be gained from assessing research articles on their own merits rather than on the basis of the journal (and its impact factor) where the work happens to be published. With the advent of online publishing and a burgeoning array of third parties providing information on scholarly articles, it has finally become feasible to provide meaningful article-level metrics and indicators for readers.'

The metrics include how many times the article has been viewed, cited, covered in the media, bookmarked, blogged and more. Writing on *BMJ Group Blogs*, PLoS Board Member Richard Smith said: 'Slowly but surely these metrics will become much superior to using the impact factor of the journal in which an article is published as a surrogate for the impact of the article itself...the metrics give a real time and much broader measure of the influence of an article. Increasingly governments and research funders are interested not just in the number of times an article is cited in other publications (an incestuous and self-serving measure) but on the impact they have in the real world, the changes they lead to.' **JS**



NIELS CORFTZEN, THE PAINTING HANDS IN THE DANISH NEUROSCIENCE CENTRE IN AARHUS

## Prize-winning brains

The husband and wife team of Uta and Chris Frith, at UCL and Aarhus University, Denmark, has been awarded the 2009 European Latsis Prize, worth 100,000 Swiss Francs (approx £60,000) for their contribution to understanding the human mind and brain. The prize is awarded by the European Science Foundation and focuses on a different field each year, with the official 2009 category being 'The Human Brain – The Human Mind'.

Uta, who is a Fellow of the British Psychological Society, said: 'I think we are a prime example of the benefits of the kind of interpersonal and cross-cultural cooperation that we are now studying explicitly with our Danish colleagues at Aarhus University. We have always discussed each other's research, and more recently our constant hidden collaboration has become visible to others as we now tend to publish together.'

Uta believes that European collaboration is crucial for the future. 'As a German living in England it is natural for me to think of myself as being European,' she said. 'There is a healthy amount of competition with our US colleagues, who tend to underestimate us. I think they would do this less if we built up more powerful European collaborations in science. I strongly benefited from being used to more than one language in my research on reading and spelling and this drove me towards cross-language studies of reading and dyslexia in a European context. I am very proud that a project sponsored by the EU resulted in a seminal study comparing dyslexia in Italy, France and the UK.'

Chris, a Society member and winner of the BPS Book Award 2008 for *Making Up the Mind* (see also the October issue of *The Psychologist*) said: 'If I had not met Uta my research career would have been very different. It has been important to us that, until very recently, we have always worked in different institutions and in different topics. As a result my research has been fertilised by the different approaches and topics that engaged Uta.'

Announcing the award, the European Science Foundation said: 'In the past decades knowledge about both the brain and mental activities has increased exponentially. Although both fields continue to generate research independently of the other, it is in the interdisciplinary investigation of the relationship between the functions of the brain and the activities of the mind, that groundbreaking research is taking place today.'

Looking to the future, Uta and Chris are continuing their research with their Danish colleagues into how minds interact. 'We are developing simple tasks that involve interaction and can also be applied both in the scanning environment and in the study of disorders of interaction such as autism and schizophrenia,' Chris said. Uta is particularly interested in how the social cognitive neuroscience research she conducts with Chris can be applied to education. She also continues to work with younger colleagues, striving to understand more fully the 'causal chain of hazards that lead to autism from gene to brain to mind to behaviour'. CJ

## FUNDING NEWS

The Economic and Social Research Council (ESRC) and the Engineering & Physical Sciences Research Council (EPSRC) have launched the **Energy and Communities Collaborative Venture**, with £7.5 million available for interdisciplinary and international projects. The closing date for applications is 11 March 2010.  
| [tinyurl.com/ykl43hq](http://tinyurl.com/ykl43hq)

The Wellcome Trust has announced that they will be launching two new awards – **Senior Investigator Awards for fully established world-class researchers and Investigator Awards to fund the best recently appointment researchers**. More detailed information about the schemes is expected to be available in June 2010. Applications can be submitted from October 2010, and the first awards will be made in May 2011. As part of this change in funding focus it is expected that some of the Trust's existing grant schemes will close. Project grants, programme grants, equipment grants, biomedical resources grants, technology development grants, University awards and Flexible Travel Awards will no longer be available. The last date that applications under these schemes will be accepted is July 2010.

| [tinyurl.com/yjzgc02](http://tinyurl.com/yjzgc02)

The Chief Scientist Office of the Scottish Government is offering **Doctoral Fellowships and Postdoctoral Fellowships in Health Services and Health of the Public Research**. The Doctoral Fellowships give graduates the opportunity to work towards a PhD in an area of research relevant to the needs of NHSScotland.

| [tinyurl.com/y8ea5k2](http://tinyurl.com/y8ea5k2)

The **Netherlands Institute for Advanced Study in the Humanities and Social Sciences** (NIAS) offers **Regular Fellowships to prominent researchers and senior scholars** from universities or institutes outside the Netherlands. Described as 'a year to think', a Fellowship gives an opportunity for researchers/scholars to devote themselves exclusively to their own academic projects for a ten-month period, either individually or as part of a research theme group. The next closing date is 1 March 2010.

| [www.nias.knaw.nl/en](http://www.nias.knaw.nl/en)

### info

For more, see [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

## Great British psychology for students

Tom Mitchell (University of Aberdeen) and Jon Sutton report from the Society's Edinburgh and London Lectures

The Society's Annual Student Lectures, in London and a more northerly venue, have become an important fixture in the calendar: a chance for psychologists to enthuse the next generation. This year's events saw 120 students attend north of the border and 600 in the capital, to hear talks on love, music, addiction, and more.

### Edinburgh

The process of dating – online or otherwise – follows a specific framework, where individuals present themselves as a product to 'invest' in. So said Dr Monica Whitty (Nottingham Trent University), who has been investigating which traits people advertise most in the dating environment.

Whitty described how people advertise gender-stereotyped assets in order to display their best features; women have been found to promote their physical attributes (i.e. hair and eye colour) and men promote their socio-economic status (i.e. job type and car). People were also found to engage in 'selective truth telling', where they only advertised traits (such as weight in women) when it was socially desirable to the opposite sex.

Through interviews with dating site users, Whitty found that women spend time rewriting details in their profiles in an effort to 'stand out from the crowd', as they viewed themselves as being in competition with other users of the site. Men admitted in the interviews that they didn't read the whole profiles of potential matches, instead sending out multiple mails in the hope of receiving a response. In the words of one male interviewee, 'It's a numbers game... you look at the picture, read the words and if it's better than 50 per cent you send them a kiss'.

Given these gender differences and little white lies, can relationships started

online really blossom? Whitty noted that because of a certain level of visual anonymity in the online environment (as users select the type of pictures to display), people are more likely to reveal meaningful personal information in the initial part of a relationship, leading to potential partners getting to know each other better. This may also be more likely on dating sites that target specific religious or ethnic groups, where the common ground between users is increased. Overall, the ease with which online dating allows people to select potential matches, on a physical, intellectual and emotional level, may outweigh the unpredictability of other forms of face-to-face dating (e.g. speed-dating, blind-dating), resulting in an increased chance of a long-term relationship.



People engage in 'selective truth telling'

Segueing into *why* we find someone attractive, the next speaker stated that 'Beauty is the greatest letter of recommendation'. Paul Gardner (University of St Andrews) showed that across cultures, attractiveness is expressed most readily through the face and its expressions. Studies have shown that people rate computer-generated composites – a combination of a number of average faces – as more attractive than a 'real-world' face. Gardner noted that

attractiveness can also be influenced by environmental inputs, such as physical proximity (interpersonal attraction can increase as physical distance decreases) and context. This allowed Gardner to roll out a student favourite, 'Love on a Bridge'. In this study, men rated a woman as more attractive when they met her on a suspended bridge rather than on solid ground, suggesting a misattribution of heightened arousal to an interpersonal factor.

Revisiting his talk from last year's Manchester Lectures (see News, January 2009), Professor Charlie Lewis (Lancaster University) tackled big issues such as the very essence of humanity. He argued that the key skills we develop during childhood allow us to become effective communicators in later life. Communication is the bedrock of human development, and an essential element of this is 'theory of mind', the ability to understand the mental states of other people (i.e. their thoughts and feelings). The developmental shift in success in these tasks provides evidence for a genetically driven theory, where humans are programmed towards social interaction, and that competence in this ability becomes 'unlocked' as the child's brain develops. Humans are embedded in a social framework, and it is the complexity of this social interaction that drives our development into successful 'human' communicators.

Offering a practical demonstration of the need for successful communication, Dr Carol Ireland (University of Central Lancashire) turned the spotlight on the role of the forensic psychologist in crisis negotiation. When such situations arise (e.g. hostage taking, threats of self-harm and use of barricades), they must be solved effectively to reduce the risk of potential harm to everyone involved. Ireland discussed the key role that psychology plays in advising the best strategies to adopt as crisis situations develop. Most incidents – 80 per cent – are resolved peacefully, leading to the arrest of the perpetrator and the safe release of hostages. However, if effective strategies are not in place there is an increased risk of harm; 75 per cent of casualties in hostage incidents arise from a disorganised rescue attempt.

Ireland noted that in a crisis situation, a person's level of physical, emotional and psychological arousal increases, which makes them less rational in their responses. It is the goal of the psychologist to help establish an effective means of communication with the perpetrator, and engage calmly and

rationally with their demands. The psychologist must be able to change the situation from 'crisis' to a more normal problem-solving exercise, by creating empathy and a 'climate of compromise' with the perpetrator. It is this (often verbal) interaction with the perpetrator, and the increased time in which the dialogue progresses, that provides the perpetrator the opportunity for more rational thinking.

Finally, Professor Adrian North (Heriot-Watt University) delivered a crowd-pleasing take on some of the issues in his *Psychologist* article last month, posing the question 'is pop music bad for young people?' North concluded that the evidence suggesting a link between music and deviance or self-harm was not conclusive, but neither did it suggest there's nothing to worry about. He pointed in particular to a need for better parenting: many of the factors that mediate the link between music and deviance are linked to parenting (e.g. poor school performance, poor family relationships, poor parental monitoring, low self-esteem). Rather than demonising particular styles of music, adults could embrace music as a potential 'early warning' of later problems.

## London

The London event kicked off with a qualitative study of spinal cord injury in rugby players, passionately presented by Dr Brett Smith (Loughborough University). For the last 10 years, Smith has 'lived and breathed' narrative theory, the stories that these people tell and how they shape their post-injury lives. He vividly described the 'narrative wreckage' that characterises the first stage: fragmentation, and a loss of the self and hope. There is a role for psychologists, Smith said, in helping the person move 'from chaos to quest', in facilitating post-traumatic growth via the building of resilience, personal and social competence, and support. Too often, the injured are left to find out about 'this different way of being' themselves. Smith was wary about 'restitution narratives', which run the risk of leaving the person in 'psychological limbo' when the miracle cure doesn't appear. But, he said, there are good days and bad days for the disabled, and psychologists can play a key role in that process by providing stories to draw upon.

Dr Pam Heaton (Goldsmiths, University of London) described some of her research with individuals who are gifted but also have intellectual and other disabilities. She showed how the Scot

Richard Wawro, considered 'moderately to severely retarded' at the age of three, came to paint with 'the precision of a mechanic and the vision of a poet'. Dispelling the myth that such savant abilities are all about memory, Heaton showed how Wawro would transform the landscape photos that so fascinated him, adding life and happiness. Turning to her specialist area of music (see last month's issue), Heaton described a study on savant abilities in transposing a melody: retaining the music's overall 'shape' when playing it in a different key. Her subject, GN, was able to do this in a greater range of keys than the controls, and perform the piece fluently to boot. Heaton held this up as consistent with the systematising theory of autism.

After lunch, Professor Richard Carson (Queen's University Belfast) gave some sobering statistics on stroke. In the European Union alone, a million people a year will suffer a stroke. Three quarters will survive, and of these, 20 per cent will become severely disabled. As the majority of strokes affect the artery that supplies the cortical area controlling movements of the upper limb, most will have an arm impairment. So how can psychologists bring a damaged brain back into action, and get the arm moving? Inspired by Duchenne de Boulogne, Carson described incredible interventions using EMG-triggered functional electrical stimulation. In other words, stroke sufferers were encouraged to generate their own electrical activity in the brain, willing themselves to move their arm forward. This signal was detected and then augmented, providing an electrical impulse to the muscle. The researchers gradually raised the threshold at which this 'boost' kicked in, over a four-week period with three training sessions a week. Participants were able to move their arm 11cm further forward than they were before: a huge gain in the circumstances. Carson also described research using transcranial magnetic stimulation to increase the excitability of pathways in the brain and therefore improve functioning.

Describing her work on the use of

music and smell to enhance the retrieval of memory, Dr Catriona Morrison (University of Leeds) drew on her 'magical memory tour' study. This collected 5000 memories of The Beatles, including many eloquent and vivid memories that appeared to have been little recalled in decades. Morrison highlighted how this was 'completely different territory' to the usual controlled experiments of cognitive psychology. She also presented interesting data on olfactory ability, which declines in normal ageing and may be a good pre-clinical sign of Alzheimer's disease (AD). Possession of the ApoE4 gene may not be sufficient for developing AD, but according to Morrison the interaction with olfactory ability could be crucial.

Finally, Professor Mark Griffiths (Nottingham Trent University) gave a breakneck tour of the psychology of gambling addiction. Although the figures suggest that the number of adolescent problem gamblers is falling, mass deregulation and the increasingly multimedia and technological nature of gambling make this a live issue. Griffiths explained how the structural characteristics of fruit machines ensure that those playing them don't feel like they are always losing: they are constantly nearly winning. He argued that all the components of an addiction can be present in the fruit machine users he studies: playing becomes all-encompassing, they use it to modify mood, they become more tolerant to the effects, and suffer withdrawal, conflict and relapse. Perhaps the final word should go to one such 'addict', who said: 'you have to accept it's a love affair, and it's with a machine whose lights flash, takes your money and kills your soul'.

## Psychological therapies in the NHS

Jon Sutton and Christian Jarrett report from a two-day event organised by a coalition of organisations intent on improving access to mental health services

This event was, in part, a celebration of the progress made by members of conference organisers, the New Savoy Partnership, in moving psychological therapy up the government agenda. But the balloons were occasionally deflated by comments from the floor suggesting there is some way to go: 'Mental health remains a minnow'; 'the UK is still spending £400 million a year on anti-depressant medication'. It was left to the inspiration behind the Improving Access to Psychological Therapies (IAPT) programme, Lord Richard Layard, to issue a rousing challenge: 'the government commit to the provision of cancer treatment within two weeks of referral: why can't we strive for the same for mental health?'

According to Jeremy Clarke, Chair of the New Savoy Partnership, what gets decided at this annual event has a real impetus in IAPT and other programmes. However, he also cautioned that we can only really lobby government when there is a cohesive professional community. Some delegates referred to anxiety and critique emerging around IAPT, and Professor Glenys Parry (University of Sheffield) opened her evaluation of the IAPT pilot sites with an admission that 'anything we say is going to drop into a discourse which is socially constructed and quite polarised'. However, she reported that the majority of service users are positive about what they are getting, and the IAPT demo sites are faring well. Choice and autonomy emerge as important from a service-user perspective, as does the handling of the 'step up' from low- to high-intensity treatment. Parry finished with practical advice for the national 'roll out' of IAPT: the importance of partnership working and management skill, the balance between driving it forward in 'ridiculous' timescales and getting it right the first time; and that old chestnut, the need for appropriate accommodation and IT systems! Overall,

she said, IAPT needs a discrete identity, structure and profile: some way of retaining that pioneering spirit and energy that surrounds a new initiative.

That energy was evident in abundance from Professor Cary Cooper (Lancaster University) as he showcased the impressive 'Foresight' evidence on mental capital and well-being (see [www.foresight.gov.uk](http://www.foresight.gov.uk), and News, December 2008). The programme has involved 400 scientists and 80 state-of-the-art science reviews, and its policy of suggesting evidence-based interventions and then fully costing them is proving to be influential with the UK government and beyond. With research findings and apposite quotes from Joseph Heller's novel *Something Happened* Cooper illustrated the importance of well-being at work and how to improve it. He called for the right to request flexible working for all employees, and said that employers should run regular well-being audits and publish the results in their annual reports.

Offering evidence that government is listening was Secretary of State for Health Andy Burnham, who reiterated his commitment to mental health. It had become the pace-setter for the rest of the NHS, he said, with IAPT at the vanguard ushering in a new era. 'There can be no pulling back from what you've achieved,' he told the audience, 'not even in more difficult times. That has happened to mental health services in the past, and I don't want to see that happen on my watch.' Burnham also recognised that IAPT initially prioritised CBT, but said that now was the time to move towards a fully formed IAPT model, with additional non-CBT practitioners in place by the end of 2010. Ending with a personal tale of pit closures in Easington, Burnham highlighted the catastrophic and enduring effects of help not being there when needed. Speakers on the panel agreed, with Lord Victor Adebawale saying that unless IAPT can be rolled out we will

create another underclass. 'We have to get the services out there,' he said, 'and we have to get them understood by the people not in this room.' Sue Baker from Time for Change agreed, saying that however good the services are, the general public know very little about what causes mental illness and what they should do about it.

Talking of the general public, Professor Peter Fonagy (University College London) asked what their response would be if there was a group of surgeons who, on average, made people worse? He was responding to a fascinating and provocative talk by Professor Mike Lambert (Brigham Young University), which provided some sobering outcome measures on psychotherapy – 5–10 per cent of adults and 14–25 per cent of children actually deteriorate, and with some therapists this figure is as high as 50 per cent (see also 'When therapy causes harm', at [www.bps.org.uk/harm](http://www.bps.org.uk/harm)). Even more worryingly, Lambert's research suggests that practitioners are fairly hopeless at predicting this treatment failure, and rely too much on their overly optimistic clinical intuition. Lambert argued for the development of change-sensitive, automated methods providing instant feedback to clinicians and patients on how treatment is progressing. His algorithms, checking for mental health 'vital signs' in relation to functioning prior to treatment and expected response of similar clients, predicted 85 per cent of those clients who had negative outcomes.

Outcomes management and feedback in therapy were also advocated by the other speakers in this final symposium of the first day. Professor Wolfgang Lutz (University of Trier) found that patients like the idea of evaluating psychotherapeutic outcomes; therapists are less keen! Professor Dave Richards, National Informatics Adviser for IAPT and a self-professed enthusiast for data, said that we need to balance persuasion with compulsion, and utility with burden. Intelligent and automated patient-management systems are required. Some IAPT services are struggling with existing data systems and not collecting data on recovery at all, he said.

Top of the agenda on day two were the plans for rolling out an IAPT-style approach to children. Delegates were served a mixture of rationale, facts, ambitions, obstacles and ongoing efforts. The rationale, the indefatigable Layard explained, is that prevention and early intervention is key to improving the well-being of the nation. The facts, he continued, holding aloft *The Good*

*Childhood Inquiry*, which he co-authored earlier this year, are that 10 per cent of kids have significant psychological and emotional problems and yet only a quarter are receiving the care they need. Child and Adolescent Mental Health Services (CAMHS) have only two thirds of the staff required, Layard added, and many of the staff who are in place, whilst they practise good intentions and hand-holding, have a lack of training.

So what to do? Layard has outlined plans for an ambitious training programme, to equip an additional 200 people a year in an evidenced-based approach (Layard pointed to [www.casel.org](http://www.casel.org) for hundreds of evaluated treatments for kids). He wants lessons to be learned from IAPT, which means integrated CAMHS teams, following a hub-and-spoke model. Layard and his colleagues also want teachers to be trained to improve their ability to detect and prevent the development of emotional problems.

There are also proposals for Personal, Social, Health and Economic Education – known more colloquially as well-being lessons – to be made into a PGCE (teacher training) specialist subject.

Will any of these things happen? Advanced funding from the government's Comprehensive Spending Review had been promised but has since been cancelled. So funding is a problem, but Layard said political interest remains buoyant – 'The times are on our side,' he said. 'There has never been more concern about the feelings and well-being of young children, and the idea that this is key to a healthier society.' He also said that the General Election could be 'a chance to press parties to make IAPT part of their election manifesto'.

Other speakers outlined current efforts to improve CAMHS. Miranda Wolpert's UCL team have produced a leaflet for children called 'Choosing what's best for you' (<http://bit.ly/695pcT>), and as Director of the CAMHS Outcome Research Consortium she is gathering outcome data from services around the country. Wolpert urged practitioners to be reflective in their work, and she echoed a message from the previous day, warning that therapists need to realise that they may inadvertently cause harm if they pursue the wrong approach. 'We need to think – How do I know that a different approach may not have worked better? How will I know if I've done well?'

Rita Harris, CAMHS Director at

Tavistock and Portman NHS Trust, described progress she and her colleagues have made developing a mental health website based on interviews with children and surveys of what they understand about CAMHS. Children have also sat on the project's steering committee and helped create the characters that feature on the site. The creative process has thrown up some novel insights – for example, children mentioned issues such as their parents arguing, and moving in and out of friendships, which aren't currently featured in some school well-being programmes.

There were some notes of concern and voices of dissent. Nancy Rowland, Director of Research, Policy and Professional Practice at the British Association for Counselling and Psychotherapy, acknowledged that IAPT had been a success in many ways but that

it had also had unintended negative effects on large parts of the existing workforce. 'Child IAPTs should make full use of the existing workforce,' Rowland said. She also highlighted that England remains the only country in the UK without a policy for counselling in schools.

When the discussion was opened to the audience, the United Kingdom Council for Psychotherapy chair elect Andrew Samuels said he and others had concerns about the application of a mental health agenda to educational settings. He mentioned worries about 'extreme conformism', 'emotional literacy by numbers,' and described some of the teaching of well-being in schools as 'draconian and conformist'. Meanwhile a member of the Association of Family Therapists raised concerns about the focus on individual therapy: 'Most kids who do well, do so because of their family,' he said.

The second day's other major focus was on improving psychological services for older people, including those with dementia. The effervescent Sube Banerjee, of the Institute of Psychiatry and joint lead of the UK government's National Dementia Strategy for England (<http://bit.ly/7JKsDh>), began proceedings by outlining the scale of the problem. Six per cent of older people have dementia, rising to 30 per cent among people aged over 95, so 'it's common', Banerjee said, 'but it's not a natural part of ageing'. Banerjee's key message was that early

psychological intervention can make a world of difference. Currently a lot of money is spent late in the illness, for example on care homes, with far less spent on prevention, detection and treatment. Yet 'early intervention in dementia improves later quality of life,' he said. Banerjee also argued, with the help of a 'gigantically exciting' slide, that it is possible to have severe dementia and to have a good quality of life. 'A big part of this is psychology and not drugs,' he said.

Sandra Evans, a consultant psychiatrist with the East London Foundation NHS Trust, spoke of how little take up of psychological services there is by older people. Efforts are being made to improve the situation, including publication of the IAPT older people's practice guide, the launch of National Dementia Strategy described above, and the government's new 10-year strategy for mental health, *New Horizons*. Evans said there is a need to raise awareness of the treatability of old-age depression, to recruit IAPT workers from older groups and to conduct more research on evidence-based approaches. She ended by quoting Eleanor Roosevelt: 'Beautiful young people are accidents of nature, but beautiful old people are works of art.'

Among the final afternoon's mix of workshops and symposiums was a discussion of 'ways of using research which help clinicians, patients and commissioners'. Several speakers criticised the over-dependence of the National Institute for Health and Clinical Excellence (NICE) on randomly controlled trials (RCTs). Robert Elliott of the University of Strathclyde, for example, said that we need a more pluralistic approach using multiple lines of evidence. He said that different kinds of research serve different roles for different people – RCTs are used by trialist scientists to test causal models, whereas systematic case studies better inform practitioners and qualitative research is more useful for service users.

Roz Shaffran at the University of Reading ended the session by sharing her passion for using new research findings in her own clinical practice. She gave the example of a 2006 study by Adam Radomsky and colleagues that showed repeated checking by healthy participants of oven hobs and taps led them to be less confident in whether they'd left the gas or taps on or off (see <http://bit.ly/5M24CR>). The idea that repeated checking can lead to memory distrust has obvious psycho-educational implications for working with people with OCD. 'Awareness of research gives you more tricks to use in therapy,' Shaffran said.

# Ruling the airwaves

John Bradshaw (Monash University) on how he has presented science stories on Australian radio

Scientists, trained to write in a sparse and unambiguous fashion, are notoriously poor at presenting the importance of their work to the tax-paying public and policy makers in government. Conversely journalists, whose job it might be to interpret such work for the wider audience, are often accused by scientists of misrepresenting or exaggerating their findings. Should such journalists have a training in science? Should scientists undergo an obligatory course in media communications? Is there some intermediate approach combining reasonable rigour with something with which all can identify? What is the best medium of communication to publicise one's findings: written word, radio, TV?

Australia has for many decades been extremely fortunate in having one of the world's best and internationally best-known science journalists in Robyn Williams. Over 30 years ago he established ABC Radio National's *Science Show*, a one-hour weekly presentation of interviews with leading scientists from all disciplines and countries. A spin-off, which he also hosts, is a weekly *Ockham's Razor*. This feature involves a prepared talk, again by experts, on some aspect of their work, for a general but reasonably literate and interested audience. I got to know, respect and admire Robyn, and many years ago began contributing to these programmes. I have now contributed almost 30 such 'stories'.

My own area of research, experimental neuropsychology/neuroscience, like astronomy, theoretical physics and molecular genetics, is fortunate in that it is expanding extremely rapidly and readily connects with popular interest in issues with which people can identify. Such issues include the nature of

perception, conscious awareness, memory, language... and, unfortunately, also the all-too-common neuropsychiatric or neurological disorders such as addiction, the obsessions, dementia, depression, ADHD, autism, schizophrenia, Parkinson's disease, and so on. New technologies (e.g. deep brain stimulation, transcranial magnetic stimulation, functional imaging of ever finer resolution and sophistication, virtual reality) open new and ever wider



windows into the inner workings of the human brain, that most complicated structure in the known universe, at structural, neuronal and molecular levels. It is difficult not to convey one's own excitement and privilege at being party to such work; it is also correspondingly easy to find issues and questions amenable to an interesting popular treatment without risk of being trivialised. Long ago, like many a novelist or writer, I developed the daytime habit of always carrying a small pocket notebook with attached miniature pen, with which to jot down ideas, whether for research or for *Ockham's Razor* talks. Good ideas can 'happen' at the most unexpected times! I also keep

beside the bed at night a similar little pad, and one of the most useful gifts which my (then very young) daughter once gave me was a ballpoint with a tiny built-in LED at the tip so that I could see what I was writing.

I always commence such an article with a personal anecdote – something that once happened to me, or that I saw, or did, or was told about, which relates in a meaningful way to the psychological, perceptual, motor, neurological or psychiatric phenomenon which I then go on to describe, elucidate or interpret. Indeed it is useful always to try to ground such accounts in the personal and everyday, as even clinical or pathological phenomena usually have milder counterparts to which listeners can at least relate. Who has not experienced tip-of-the-tongue memory difficulties, an urge to check whether the door is indeed locked, apparently improbable coincidences, feelings of déjà vu, absent-minded moments such that

when changing a shirt you find you have automatically put on your night wear? Who has not seen birds or animals apparently solving problems with seeming insight, or engaging in unexpectedly complex play? Ventriloquism, collecting, hobbies, love, mirror neurons, religion, creative inspiration, phantom limbs, synaesthesia, blindsight and why you can't tickle

yourself have all let me describe instances of a general underlying neurology. Just keep language simple and non-technical, and avoid unnecessary complexities.

I also made it a practice always to take a student with me for a recording session, if held in one of the ABC's studios. Then, 'while the tapes were still rolling', the students could have the opportunity of saying something about their own work, which could possibly even go to air at some later stage at an appropriate juncture.

To make a start in developing simple, interesting, informative and popular accounts for newspaper or radio, prepare two or three such items of a suitable length (2000 words is ideal, equivalent to about 13 minutes of conversational speech). Try them out on friends or family – and dispatch them to an editor or science journalist, with your academic credentials. Good luck!

**I For more information and to listen to past programmes, see [www.abc.net.au/rn/ockhamsrazor](http://www.abc.net.au/rn/ockhamsrazor)**

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