

What would you say to a unicycling professor?

In 2007 a retired dermatologist published an article in *BMJ* in which he described his year-long observations of the way people responded to the sight of him travelling about on his unicycle (tinyurl.com/unicycprof). From over 400 encounters with men, women and children, Professor Sam Shuster observed some striking differences: young children expressed curiosity, older boys were aggressive, including throwing stones and attempting to knock him off, women tended to express admiration and concern, whilst men indulged in repetitive, snide humour, usually referring to the absence of a wheel, as in 'Lost your wheel?'

Shuster said that the sex and age differences were striking: 95 per cent of female comments were praising vs. 25 per cent of comments made by men. The majority – 75 per cent – of adult male comments were attempts at comedy (a tendency that was diminished in elderly men). 'The consistent content of the male "joke" and its triumphant delivery as if it was original and funny, even when it was neither, was remarkable, and it suggests a common underlying mechanism,' he wrote. Shuster thinks this mechanism is humour as a form of verbal aggression, driven by male hormones.

Now Shuster has published the results of his online investigations into this phenomenon, based on analysis of comments on unicycling forums by 23 male unicyclists and nine female unicyclists (aged 15–69) with experience of cycling around the world, including in the UK, USA, mainland Europe, Scandinavia, Canada, South Korea and New Zealand. All but two of the unicyclists' experiences were indicative of the exact same pattern noted by Shuster – admiration and concern in women; physical aggression in older boys, which matured into repetitive, aggressively humorous remarks from adult men.

E-mail correspondence with five further unicyclists given access to the 2007 *BMJ* paper led to further supporting evidence.

'Although this method of data collection does not eliminate risks of self-selection and bias,' Shuster admitted, 'the equal opportunity available to unicyclists to record conflicting observations makes it likely that these findings are representative; the consistency of the data gathered from the different sources gives further confidence.'

Shuster concluded that the experimental possibilities arising from his findings were considerable, e.g. testing whether humour production and appreciation changes with stage and state of sexual development; investigating the persistence of aggression as a component of humour; and whether humour production, exhibition and appreciation changes as a function of men and women's sexual and social success (Shuster's own data hinted at less humorous aggression in men of more affluent means, but exaggerated comedic aggression in men driving old cars).



The woman who grew phantom fingers she'd never had

In the February issue of *Neurocase*

Inside the human brain there is a map of the body drawn in neural tissue. When a person loses a limb, the neural representation of that body part still exists in the map, and more often than not, it continues to give rise to 'phantom' sensations. Sometimes neurons in adjacent areas of the body map invade the tissue that represents the missing limb. This can lead to the curious situation where stimulation of a person's face (or other areas) provokes feelings in their phantom limb, as documented by the great neuroscientist V.S. Ramachandran. Cases like this are often cited as evidence for the brain's plasticity.

Now Ramachandran and his colleague Paul McGeoch have reported a phantom limb case that illustrates how aspects of the body map are apparently hard-wired. The case is a 57-year-old woman (known as R.N.) who was born with a deformed right hand consisting of only three fingers and a rudimentary thumb. After a car crash at age 18, R.N.'s deformed hand was amputated, which gave rise to feelings of a phantom hand. Curiously, R.N. experienced her phantom hand as having a full complement of five fingers, albeit that some of the digits were foreshortened. In other words, she was experiencing the sensation of having fingers that she'd never physically possessed.

R.N. was referred to the researchers more than 35 years after her accident, after her phantom hand had become

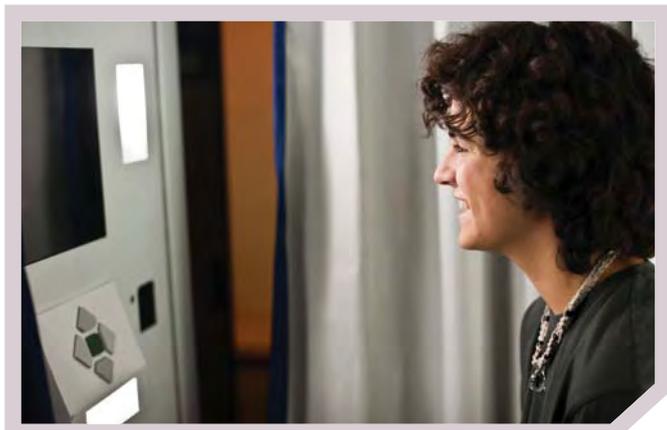
unbearably painful and uncomfortable, including two of the fingers feeling as if they'd become twisted and bent until their tips touched. McGeoch and Ramachandran trained R.N. in using 'mirror visual feedback', in which the reflection of her healthy left-hand was seen as superimposed onto where she felt her phantom right hand to be. After two weeks of 30-minute daily feedback, R.N. was able to move her phantom fingers and was relieved of pain. Crucially, she also experienced that all five of her phantom fingers were now normal length.

McGeoch and Ramachandran said this case provides evidence that the brain has an innate template of a fully formed hand. Freed from the visual, proprioceptive and tactile sensations of her deformed hand, and aided by the mirror training, R.N.'s brain reinstated its innate map of a normal hand. 'There appears to be a "hard-wired" innately specified scaffold for body image,' the researchers said. This account also helps explain the occurrence of phantom limbs in people born with missing limbs.

The researchers conceded that they were taking R.N.'s account of her feelings on trust. It's possible she was confabulating – although they think this unlikely. If she were, McGeoch and Ramachandran think it more likely that R.N. would have claimed to have had normal length fingers prior to the mirror training.



In the February issue of *Psychology Research and Behavior Management*



Moving faces considered more attractive

In *Frontiers in Psychology*

Here's some comforting news for anyone who despairs at how they look in photos – research by psychologists at the Universities of California and Harvard finds that the same people are rated as more attractive in videos than in static images taken from those videos. In other words, if you think you look awful in that holiday snap – don't worry, you probably look much better in the flesh when people can see you moving.

Robert Post and his team call the relative unattractiveness of static faces, 'the frozen face effect'. They think it may have to do with the way we form an impression of a moving face that's averaged across the various positions and profiles of that face. This would fit earlier findings showing that more average faces are judged as more attractive. Another possibility is that we find moving faces more attractive because 'they optimally drive the neural mechanisms of face recognition'.

Post and his colleagues made their findings by asking a handful of participants to rate how 'flattering' or 'attractive' 20 people looked in two-second video clips and in 1200 static frames taken from those clips. The same faces were consistently rated as more attractive and flattering in the video clips than in the stills.

Further experiments attempted to establish the mechanism underlying this effect. It was found that the same rule held with the

videos and stills turned upside down. The researchers also showed the effect is nothing to do with the videos containing more information: when the 'flattering' ratings of an ensemble of multiple stills of a face was compared against ratings of those same stills in a video, once again the video received the more positive ratings. Memory didn't seem to be a factor either – more or less flattering images weren't remembered any better than average. However it was found that to be judged as more flattering, videos do need to run in sequence. Jumbled-up, out-of-sequence videos of a face didn't receive higher ratings than stills of that face.

The researchers concluded that the frozen face effect: 'may explain why photography of faces is so difficult to master and why people anecdotally believe they look worse in photographs.'



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Think less and become more conservative

In *Personality and Social Psychology Bulletin*

The less time or mental effort a person puts into thinking about an issue, the more likely they are to espouse a politically conservative perspective. That's according to a new study by Scott Eidelman and his team, who stress that their point is 'not that conservatives rely on low effort thought' but that 'low effort thinking promotes political conservatism'.

Across four studies, the researchers examined the effects on political attitudes of four different ways of reducing mental effort. This included: surveying drinkers at varying degrees of intoxication at a local bar; allocating some participants to a dual-task condition where they had to keep track of auditory tones at the same time as registering their political attitudes; allocating some participants to a time-pressured situation, in which they had to rate their agreement with different

political statements as fast as possible; and finally, giving some participants the simple instruction to respond to political statements without thinking too hard.

The results were consistent across the studies – being more drunk, being distracted by a secondary task, answering under time pressure and answering without thinking, all led participants to agree more strongly with politically conservative beliefs, such as 'A first consideration of any society is the protection of property rights' and 'Production and trade should be free of government interference.' Agreement with liberal beliefs were either reduced or unaffected by the measures.

The findings that reduced mental effort encourages more conservative beliefs fits with prior research suggesting that attributions of personal responsibility (versus recognising the influence of situational factors), acceptance of hierarchy and preference for the status quo – hallmarks of conservative belief – come naturally and automatically to most people, at least in western societies.

'Motivational factors are crucial determinants of ideology, aiding or correcting initial responses depending on one's goals, beliefs, and values,' the researchers concluded. 'Our perspective suggests that these initial and uncorrected responses lean conservative.'