Editorial

Sally Woollett

Like it or not, risk is a fact of life. It underscores many of our decisions, big or small. *Issues 97* explores the idea of risk, its forms, its settings and the consequences of miscommunicating or misunderstanding it.

We are quite poor at assessing risk, says Peter Bowditch of the Millenium Project (p.4). "We tend to overrate some risks and underrate others, often without any apparent logical basis," he says. Using fire and transport safety as examples, he shows that the perception of risk and its reality are two quite different things. "We need to recognise that when decisions are made with the gut rather than the head that another approach is required," he says. Of course, some of us, such as casinos and bookmakers (p.12) and actuaries (p.44), are exceptions to the majority.

Paul Davis (p.8) has spent a lot of his working life assessing environmental risk, but in the wake of a forest fire that destroyed his home, he writes: "… this risk assessment was nothing like the risk assessments I do professionally".

To understand risk communication "we need to better understand the differences between perceptions of risk as seen by scientists and perceptions of risk as seen by the public," says Craig Cormick of the Department of Innovation, Industry, Science and Research (p.14). He concurs with Bowditch that changing risk perception is not easy. Fear and other emotions get mixed up very easily with facts – Cormick points to the contentious topic of vaccination as an example. People tend to look for others who support their point of view on a given issue, and the internet has made this possible on a global scale.

How do you communicate seasonal climate forecasts to agricultural decision-makers? Agrometeorology services want to communicate their forecasts in such a way that farmers make the best of their resources in favourable years and don't use protective strategies that may have negative environmental consequences in some situations. A forecast can be usefully presented as a probability, says Peter Hayman of the South Australian Research and Development Institute (p.19): "It is a more accurate statement of the understanding from climate science and … it encourages intermediaries (e.g. agronomists) and farmers to practise risk management".

What position do young people occupy in the arena of risk? "Because young people will occupy the future, they are a particular target of policies that seek to control future risk," says Rosalyn Black at the Youth Research Centre, University of Melbourne (p.25). Youth are seen as both subjects and sources of risk – policies that purport to keep youth safe from society can also be seen to be aimed at doing just the reverse. Black says that "fundamental changes are needed in the way in which Australian schools understand and approach young people's role in society, and in the opportunities they offer young people to participate in and influence that society".

Bianca Fileborn of the University of Melbourne is undertaking PhD research into "experiences and understandings of … 'unwanted sexual attention' in licensed venues" (p.29). In reality, sexual violence is more likely to be experienced at home or in a private place and perpetrated by someone known to the individual, but many young women have a certain perception of risk when they are out for a "night on the town". So far, Fileborn has found that licensed venue culture, the behaviour that women engage in and the behaviour of other patrons all play a part regarding the risk of unwanted sexual attention.

Sexual behaviour is one of the behaviours measured in the Ecstasy and Related Drugs Reporting System (EDRS) undertaken each year in capital cities around Australia by the National Drug and Alcohol Research Centre. Poly-drug

use, use of alcohol and energy drinks and psychological distress, along with driving and help-seeking behaviours, were also explored in the 2010 survey, which involves talking to regular ecstasy users and others who engage with them. The Centre's Sheena Arora explains the survey rationale (p.34): "Given the difficulty in engaging this group with treatment and other health services, there is a need for policy-makers, researchers and health professionals to think about how to better stage treatment, prevention and education initiatives that target the venues this group is likely to engage with".

A 2011 parliamentary report into cyber-safety has shown that young people are tired of being warned by adults of online dangers. "There is a deep suspicion among young people that parents and teachers may be overstating the dangers and misrepresenting the risks because they don't actually understand the online environment" (p.38). The survey on which the report was based showed that many young people are cautious about sharing personal details online. Also, they are paying attention to peer experiences in the online environment (for example, the death of Carly Ryan, who was murdered in 2006 by a man she met online). "If there's one other thing the survey revealed it's that young people want to be trusted to make good decisions."

Mobile phones are as integral to modern life as the internet, but are they a risk to health? The International Agency for Research on Cancer's Interphone study on links between mobile phone use and head and neck cancers in adults involved pooled data from 13 countries. The IARC has "classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), a category used when a causal association is considered credible but when chance, bias or confounding cannot be ruled out with reasonable confidence" (p.40). Studies of the effects on children and adolescents are being carried out. The International Electromagnetic Fields (EMF) Project was begun by the World Health Organization (WHO) in 1996 "to assess the scientific evidence of possible adverse health effects from electromagnetic fields". A formal risk assessment of "all studied health outcomes from radiofrequency fields exposure" will be conducted by 2012.

Considering risk in a changing climate, the IPCC has just released its *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (p.43).

A desalination plant proposed for Point Lowly in the Upper Spencer Gulf by BHP Billiton "has been a key test of South Australia's marine environmental legislation," say Jochen Kaempf and Dan Monceaux of Flinders University (p.45). This same area is the only region of mass aggregation of the giant Australian cuttlefish, a marine species particularly susceptible to marine pollution. Kaempf and Monceaux ask "whether we should risk introducing such a pollution zone in the vicinity of the cuttlefish breeding habitat at all. Unfortunately, on behalf of all its citizens and future generations, the South Australian government has decided to accept this risk."

In an article available only at issues.com.au, Tom Faunce of the Australian National University asks: "… if we consider the present critical risks to humanity and our environment from first principles it seems that what is most needed is something that provides cheap, easily accessible energy, assists food and water security and removes carbon dioxide from the atmosphere". Given the risks inherent in our current energy supply situation, Faunce says that nano-enhanced photosynthesis may have a lot to offer.

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