

# Risky business

The background of the page is a clear blue sky. On the left side, there is a large, dark silhouette of a person's head and shoulder, facing right. On the right side, there is a silhouette of a person diving or falling, with arms and legs outstretched, positioned as if in mid-air.

Give young people credible information about drugs – or just say no? **Jenny McWhirter** highlights research that shows we first need to understand how young people assess risk.

Whatever your view about what works in drug education, it is clear that how young people choose whether or not to use drugs – or any other decision about a range of risky activities such as driving late at night or having sex – is at the heart of the matter. And if we can understand this – can it help us to develop more informed approaches to drug education?

Adolescent decision-making has been the subject of much research in the last ten years. Biological studies have focussed on the evolutionary advantage that risk-taking gives to adolescents: finding a mate is risky, socially and physically. So a Darwinian could argue that selection pressure leads to risk-taking at puberty when reproduction becomes possible. Seen this way it's clear that some risk-taking brings real benefits for individuals and society.

Meanwhile neurological research into the developing brain has revealed how, during adolescence, the limbic system develops at a greater rate than the cortex. The limbic system is where emotion is processed and is the home of the pleasure and reward centres. The cortex is the home of rational thought and 'impulse control'. So it follows that teenagers are unable to act rationally until these two bits of the brain are 'in synch' and will inevitably get involved in risky behaviour to some extent. From this perspective adolescent risk-taking can be seen as a problem to be overcome.

So how can we try to change the way adolescents behave and help them to enjoy the benefits of risk-taking while staying safe? If risk-taking is hard-wired into young people, do we just need to sit back and wait for them to become more risk averse?

Social psychologists take a different view: they argue that young people's risk-taking behaviour is 'soft-wired' and so is amenable to change. Contrary to popular opinion, young people do not think they are immortal. Adolescents consistently over-estimate the risk of serious consequences including death in the short term, when compared with adults. Yet intriguingly, even though they over-estimate the risk of death from a particular cause, adolescents under-estimate their personal risk of death or serious harm. Why? Because they over-estimate their skill in managing risk.

Psychologists are in broad agreement that we all make decisions using two distinct processes – one essentially rational, the other more instinctive.

Rational decision-making underpins many patterns of health-related behaviour. We weigh-up the advantages and disadvantages of health choices, assess the extent to which we are personally vulnerable to the worst outcomes and make a decision on that basis. A more sophisticated version of this – 'reasoned action' – suggests that rational decisions are also influenced by the people around an individual.

Interventions based on the theory of reasoned action encourage young people to weigh-up the pros and cons of different choices, but also encourage reflection on the many influences on their choices – the opinions and choices of

parents, friends, the influence of the media and how these impact on their own choices.

However, this theory was developed based on findings with adults and college students and does not take into account important developmental differences in reasoning between adults and young people. For example, some studies show that, as far as adolescents are concerned, just the presence of a peer, previously unknown to an individual, can encourage risk-taking. Adults, however, are less susceptible to these kinds of influences.

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The second process by which we make decisions is intuitive, based on the meaning of a choice or decision, rather than its fact-based content. So the meaning of a cigarette for a 12-year-old girl hoping to fit in with a particular group at a new school can override the rational deductive process, even though she is intellectually equipped to carry it out.

While there is general agreement about this 'dual process' theory of decision-making, there are disagreements about the detail of how they operate and these differences have important implications for health promotion with adolescents and for drug education in particular.

One dual process model, known as 'prototype willingness', describes how adolescent risk-taking behaviour is predicted not by young people's *intention* to take a particular risk (driving while drunk, smoking a joint) or by their *expectation* that they will take the risk, but by their *willingness*. In studies, students asked if they would be willing to smoke a joint at a party where there are no adults, those who agreed were more likely to have smoked a joint six months later than those who were not willing. This willingness is shaped partly by images or 'prototypes' of young people who are thought to behave in this way. So if cannabis smoking is seen in a positive light, the more willing another young person might be to adopt the same behaviour even if they do not intend to do so. The prototype forms part of the meaning of 'joint smoking', rather like the image of the 'hoodie' forms the meaning many adults attach to teenagers on a street corner. And like hoodie wearing, joint smoking, once initiated, has the potential to form part of the adolescent identity.

Leaders in this field, Meg Gerrard and Frederick Gibbons, argue that to counter the impact of positive images, education needs to encourage reflection on real life situations where decisions and choices are made, and to try to influence the

features of the prototypes. They cite as an example the very low rate of cigarette smoking among young black South Africans in the 1970s and 1980s because smoking was seen as something done by white South Africans who represented a negative prototype.

They also take the view that rational decision-making is at least equal to intuition during adolescent development and that adults more often reason rationally than intuitively when faced with important decisions. They argue that as a young person gains experience, they are more able to make rational decisions.

However, there is an alternative view which suggests that intuitive reasoning is superior to rational reasoning. According to these theories adults tend to rely on intuition, whereas adolescents try to weigh up the pros and cons before reaching a decision. Valerie Reyna and colleagues have derived their dual process theory from studies of memory, which suggest that memories are stored in two ways. Memories are stored like video tape or 'verbatim' form (which are recalled during analytical or rational decision-making) and as the meaning or 'gist' which is stored and recalled differently. This dual process is known as 'fuzzy trace' theory. According to fuzzy trace theory, familiarity with a situation informs the meaning of an experience and enables gist-based reasoning. Cognitive development (the ability to think in abstract ways) also plays an important part.

As a result of their ability to make decisions based on the gist, adults are more likely to reach decisions quickly, and often more accurately than young people, who slowly weigh-up the pros and cons. Reyna cites experimental studies where adolescents and adults were asked if they would play Russian roulette for a \$1,000,000 stake. Both adults and adolescents made the same choice, not to play, but the adults reached their decision faster than the adolescents. This, Reyna argues, is because the adolescents stopped to weigh up the odds, before deciding the risk was not worth taking.

So does any of this matter? Whether we adopt fuzzy trace theory or prototype-willingness models is of more than academic interest, since each suggests different approaches to helping young people avoid the worst outcomes from risk-taking.

Fuzzy trace theory suggests that there are developmental boundaries to gist-based reasoning and that as a consequence we should do all we can to prevent young people gaining experience of risk-taking until they are capable of rapid intuitive choices. For example, Reyna and colleagues would support abstinence approaches to alcohol education, rather than a gradual introduction to alcohol with adult supervision. Reyna would also recommend we steer young people away from detailed and complex rational decision models of risk assessment and towards more categorical good choice-bad choice reasoning. In contrast to the fuzzy trace theorists, Gibbons and Gerrard would encourage young people to use rational risk analysis models when making choices and encourage the development of negative images of those who misuse alcohol.

We can look forward to some interesting studies if these theories are applied to drug education in the UK. And with risk a key concept in the Personal, social and health education (PSHE) curriculum for 11-16 year olds from September 2008, don't be surprised to find discussion of risk and decision-making playing a greater role in the classroom than drug knowledge and resistance skills.

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## WHAT THE RECENT RESEARCH MEANS FOR CLASSROOM PRACTICE

Whether we follow the prototype willingness model or the fuzzy trace theory, here are some musts for drug education.

- Remember most young people don't use illegal drugs and most of those who do, do so once or occasionally. Alcohol and tobacco are more harmful for most young people.
- 'Universal' drug education feeds the rational part of the brain and is aimed at the majority of young people who do not have serious problems with drugs. It should include honest information about the prevalence and effects of drug use, the probability of harm from different substances and from combining substances such as tobacco and cannabis or alcohol. It should include opportunities for young people to explore: what drug use means to them and their peers; the advantages and disadvantages of drug use; and also to think in terms of good choice-bad choice. This feeds the part the brain where meaning or 'gist' are developed.
- Pupils should have opportunities to consider how they will respond if they are in different, real life situations where drugs (including alcohol) are available, where peers and friends are using drugs and where family members raise the issue of drugs with them. Now think about the skills they need to act on their choices. How will pupils respond when others attempt to persuade them to conform with a group (peer pressure) or where they simply believe that choosing to use drugs or alcohol will help them access a particular group (peer influence)?
- Give them space to rehearse some of these choices. Try to avoid simplistic role play, where pupils develop the gist of persuasion, when what you want them to do is develop the gist of knowing when and how to say 'no'. Use drama techniques to build and deconstruct characters with negative characteristics (prototypes) who are persuaders, or better, take the role of persuader yourself. As well as asking pupils how they would respond if they were offered drugs, ask them to role play how they would feel and react if they knew someone who had a problem with drugs (another prototype) and what they would say or do if they were asked to help. This encourages reflection and the development of helping skills. Remember to emphasise the importance of seeking adult help and support and provide contact details for local agencies.
- A minority of young people of school age are vulnerable to harm from drugs of all kinds, either because of their own drug use or because of drug use in the family or peer group. Make sure you know who to ask for help in school and in the local community so you can direct pupils to the help they need. Drug use in school age pupils may be a sign of other problems, but it may also be experimental or a passing phase. Make sure you know the school policy on dealing with drug-related incidents.
- Don't panic!