

Public Perception of Risk

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Summary for SUBR-IM blackboard.

Over the last six months I have been reviewing research on public perception of risk for the Foresight programme at the Office of Science and Technology. This review is now effectively complete, and discussions are under way regarding the precise form(s) in which it is to be published probably some time later this year.

In the mean-time, I am posting the complete review (warning! c. 29K words) on the website and would welcome comments. Perceptions of risk of contaminated sites aren't specifically mentioned (I was asked to concentrate on other issues), but the generalisation shouldn't be hard to make.

The review adopts a perspective based primarily on psychological theories of attitudes, decision-making, learning and social influence. The main theme is that perceptions of risk are based on (i.e. learnt from) experience. We have to consider what kinds of experiences people have and how these contribute over time to views of a particular thing or activity as being more or less dangerous. These experiences can either be direct (e.g. from observing the consequences of one's own actions) or indirect (e.g. from news reports or other people). Either way, the information gained can be highly selective, albeit in different ways for 'experts' and ordinary members of the public. A large part of the reason for this is that people's prior attitudes shape the information they look for, which activities they engage in, whom they listen to and trust, etc.

Risk' is a feature of all processes and products of human action associated with effects that (a) are more or less uncertain and (b) yield some kinds of benefits or costs. Hence, 'perception' of risk involves implicit or explicit judgements of the likelihood or uncertainty, and the desirability or undesirability, of such effects. Such judgements or expectancies guide 'approach' and 'avoidance' behaviour. That is, if people expect an activity or product to be beneficial on balance, they will tend to engage in it or use it. If they expect it to be damaging or costly, they will generally reject it or leave it alone. People's expectancies may be confirmed or contradicted by the consequences of their decisions, but there is a fundamental asymmetry between approach and avoidance behaviour. Approach behaviour can produce informative feedback whereas avoidance behaviour does not. Thus, if you avoid something you believe to be dangerous, you will typically not discover whether your fears were justified or not. This can lead to a bias in the direction of 'false-alarm' or risk-averse responding, which will be even more marked where the perceived benefits of (or need for) 'approach' (i.e. accepting the 'risky' activity or product) are unclear. However, expectancies about consequences can also be over-optimistic. This is frequently the case where actions (or products) are associated with both costs and benefits, but the costs are delayed (e.g. unhealthy behaviour), or are inconsistently experienced (e.g. accidents following dangerous driving, or being caught speeding).

For many issues where we don't have direct experience, we need to rely on others to inform us about the nature of any risk and/or to control that risk on our behalf. Trust in others implies judgements of competence, impartiality and honesty, but may often be steered simply by how much we like another person. For instance, we tend to trust our friends, but because our friends tend to share our attitudes, and we are more likely to accept advice from our friends, such influence can reinforce existing attitudes. By contrast, if 'experts' are seen as having a vested interest, this may undermine trust. Risk communicators need to differentiate between prediction (saying what's likely to happen) and prescription (saying what is better or worse) since the latter involves evaluating alternatives, and different publics may hold different sets of values (e.g. over alternative uses for a remediated site).