



The Risk of Freedom

briefing

Reason and risk

For the past eight years we have been exploring in this *Briefing* the ways in which risk may be used to limit freedom and shift responsibility, both in business and in ordinary life. The time seems right, now, to open the question of risk itself. What level of risk is acceptable, and how, if at all should risk be managed? The universal assumption of modern economies is that risks, once discovered, should be reduced, and that risk-reduction is the responsibility of government. Through warnings, regulations and stringent laws, it is supposed, we can gradually eliminate the more important threats to 'health and safety', while protecting the innocent from the rapacious

Risk is built into basic practical reasoning . . .

ambitions of those who profit from jeopardising their future. The result of this attitude has been a massive escalation in the quantity of regulations, and an assumption, on the part of both national governments and transnational bureaucracies, that they have the right to control almost any aspect of human behaviour, so long as there is a risk, however slight, attached to it.

However, two deep features of risk and risk-taking are ignored by the regulators. First is the fact that risks don't come in atomic particles, but are parts of complex organisms, shaped by the flow of events. Reducing the risk that children might hurt themselves in the playground, increases the risk that they will hurt themselves more seriously later, as their unpracticed bodies try in vain to cope with the stress of city life. We all know in our hearts that there is no more risky practice than that of disaggregating risks, so as one by one to forbid them. However, when bureaucrats legislate for others, and suffer no cost from transferring risk from one area to another, they will inevitably look for a single and specific problem, and seize on a single and absolute principle in order to solve it. The mountain of European regulations (170,000 pages according to the latest estimate) is not so much a proof that risks have been reduced in Europe, as a record of the

many successful attempts by bureaucrats to pass the buck.

But there is another and more interesting factor that is overlooked by the regulators, which is the psychology of risk-taking itself. We are risk-taking creatures, not only because evolution has favoured this trait but because we make rational assessments of costs and benefits. Risk is built into the basic moves of practical reasoning, and the risk-free life is not just boring but irrational. Psychological studies by Gerald Wilde and others (see p.2 inside) have shown that human beings need to maintain a certain level of risk and will of their own accord gravitate to that level. In response to the extraordinary data delivered by the psychology of risk, some of which we reproduce inside, Dr Wilde argues that risk-taking is a homeostatic process: when risk increases in one area we strive to decrease it in another, and *vice versa*. There is a control device in all of us that acts like a thermostat to maintain risk at a constant level.

The evidence for this theory is as strong as that for Hans Selye's homeostatic theory of stress. And it has the striking corollary that the attempt to save human beings from risks taken by themselves is inherently futile. Yes, you can save them from this or that particular risk, by raising the cost of it or closing the path to it. But people will invariably compensate by seeking their diet of risk elsewhere. This means that a vast amount of current health and safety regulation rests on a mistake. You cannot protect people from themselves, and the attempt to do so is costly not only in terms of resources, but also — and more importantly — in terms of freedom. Furthermore, if reducing risk in one area increases it in another, it becomes ever more urgent to understand just which risks are acceptable and which are not. So far our rulers have settled for risks to the body (smoking, junk food, adventure playgrounds etc.) as unacceptable, while regarding risks to the soul (television, gambling, 'safe' sex etc.) as outside their remit. Yet, as psychological studies have shown, the two kinds of risk are connected. It is worth asking whether our priorities are the right ones, and what principles should govern our choice.

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Publications websites

on-line at:
www.riskoffreedom.com

Risk and rationality

John Lucas

Risk is often taken to be simply some sort of probability, but that is wrong. The mistake arises because probability is susceptible of mathematical manipulation, and insurance companies need to do mathematics. However the way we evaluate risk differs from the calculus of probabilities. We do not regard as risks the low probabilities of disaster

We need to try out our environment . . .

associated with everyday activities. Shopping is not a risky business, though shoppers get killed by road accidents on their way to the shops. Nor is it risky to incur a high probability of a small loss: I do not risk failing to buy my butter extra cheaply by not trudging round all the local supermarkets. Risks are run only when we depart from the tenor of ordinary activity, and there is a non-negligible probability of incurring serious loss.

In contrast to the theory of probability, where the expectation is simply the loss multiplied by the probability, the seriousness of a risk weighs much more heavily than the improbability of its occurring: even the remotest chance of a Chernobyl-style accident makes nuclear power seem unacceptably risky to many people who are quite comfortable with the greater dangers of coal-fired electricity. This perspective makes a risk-averse policy seem sensible: better safe than sorry. But a uniform safety-first policy is itself dangerous. At a mundane level, if children are shielded from every danger, they do not learn to recognise risks when they encounter them and to take sensible precautions. Just because we do not regard familiar activities as risky

even though they involve some probability of things going wrong, a safety-first policy prevents us from spotting potential hazards in everyday life: only if I have at some time experienced an electric shock, do I make sure the live wire is insulated and well away from any conductor; safe drivers often became so after their first accident.

We need to acquire a non-disastrous acquaintance with danger not only for safety's sake, but as rational explorers of our environment, and in order to steel ourselves for difficult ventures. The policy of never doing anything for the first time does protect me from running unnecessary risks, but it also precludes my discovering many useful or valuable activities. If we fear the unknown so much that we never run the risk of getting to know it, we shall never discover aspects of it which we need not fear, but should, rather, welcome and enjoy. We need to try out our environment. Sometimes we shall get hurt, but often we shall gain new understanding and power. We need also to try out ourselves. Although we are sentient beings who can suffer, we are also agents who do things and aspire to achieve. Risk-free life may be pain-free, but it does not come to much. If I am to make anything of my life, I must have achieved something of note, must have won over the odds. Great achievements are inherently difficult, and many are dangerous. I prove myself by scaling the Eiger, by walking to the North Pole, by winning the Grand National, by sailing single-handed across the Atlantic. I ought not to be foolhardy. I should foresee dangers, and take sensible steps to deal with them. It is rational to minimise risks, but not to avoid them altogether.

J.R. Lucas, FBA, was a Fellow and tutor of Merton College, Oxford and is the author of *The Concept of Probability* (see publications).

Risks are linked, so that reducing one of them may increase another. Regulation, by contrast, is departmentalised. . .

In the European regulatory process this has led to enormous and irremediable problems. For example, since 1996 the EU has issued a series of directives on air quality. These directives, passed into Dutch law in 2001, require concentrations of dust that could not be achieved in a densely populated country like Holland, where in any case sea salt and soil clouds constitute 55% of the atmospheric dust content, and two-thirds of the remainder is blown in from abroad. The law has brought a large number of building projects to an end, including roads, industrial parks and housing projects in the centre of Amsterdam, since the ambient dust levels surpass what is permitted for places in which people are to live or work. Epidemiological studies indicate that, thanks to atmospheric dust, 'the lifespan of some thousands of people is reduced by a few days to a few months'. Nevertheless Environment Commissioner Stavros Dimas insists on yet more stringent regulations, to be put in place in 2010 and 2015, arguing that delays in reaching the chosen targets 'would be playing with people's lives'. That it might be playing rather more seriously with people's lives to fail to provide the housing required to shelter them or the industry required to employ them is not a relevant consideration: for those things belong to another department, and the essence of bureaucratic regulation is that it proceeds problem by problem and neither needs, nor is able, to take account of the whole.

Likewise a European directive issued in response to the slight risk that diseased animals might enter the human food-chain insists that all slaughter should now take place in the presence of a qualified vet, who must inspect each animal as it arrives at the abattoir. Veterinary qualifications are hard to obtain in Britain, with the result that vets demand high fees for attendance. Small abattoirs all over the country have therefore been forced to close down, since their profit margins are as narrow as those of the farmers whom they serve. This has vastly increased the risk that diseased animals will be transported around the country, to the few abattoirs remaining. Hence the nationwide outbreak of foot-and-mouth disease, and the ruin of livestock farming in Britain. But that particular risk belongs to another department.

The risk thermostat

editorial summary

The theory of risk homeostasis advanced by Gerald J.S. Wilde (see publications) holds that 'the degree of risk-taking behaviour and the magnitude of loss due to accidents and lifestyle-dependent disease are maintained over time, unless there is a change in the target level of risk.' There is much evidence for this theory: traffic lights do nothing to change the frequency of accidents at cross-roads; air-bags do nothing to reduce fatalities in car crashes; reflector posts along the side of the road leave the level of night-time accidents unchanged. Likewise with lifestyle diseases: low-tar cigarettes do nothing to reduce the intake of toxic tobacco-products; fitness and slimming routines do nothing to reduce the likelihood of heart disease; condoms do nothing to control the spread of venereal diseases; and so on. In every case, the reduction of risk from one

source leaves the agent free to cultivate risk from another. Furthermore, as John Adams has argued, 'risk compensation' may operate to transfer to other people the risks we have been liberated from. Those wearing seat-belts will drive that bit faster; those using condoms will spread the risk of disease more widely. The only way to reduce risk overall is to change the target level – in other words, to reset the thermostat.

The best way to do this, Wilde argues, is not by trying to eliminate risks one by one, whether by warnings (which in any case attract the risk junkies) or by regulations. The best way of lowering the target level is to reward people for behaving safely. A positive incentive for accident-free driving, for a healthy lifestyle, or for a safety-conscious hobby will reset the controls far more effectively than any regulation that merely transfers risk-taking behaviour from one focus to another.

Governing risk

Patrick Basham

Few areas of government policy encroach upon our daily lives so directly as risk management. Yet, the manner in which government manages risk leaves much to be desired. To a large degree, this reflects the fact that public attitudes to risk have changed. Citizens of wealthy countries appear preoccupied with health, safety, and environmental comfort, and risks that were once seen as unavoidable are now considered intolerable. This decreased tolerance for risk has made us susceptible to scares, often based on uncertain, amateurish or even ideologically motivated 'science'.

Risk management policy clearly requires a fundamental re-evaluation . . .

These scares can be costly and counter-productive, since they give rise to single-issue campaigns, to which governments respond with hasty regulation, the costs of which are seldom considered. (An example: the near total destruction of the British beef industry, on the basis of a purely speculative link between mad cow disease and human CJD.) Yet, the first responsibility of government is to help us to understand the importance of considering the costs, as well as the benefits, of regulation.

Government's second responsibility is to base regulatory decisions on sound science and economics. Yet the scientific basis for much policy-making is highly

suspect, many alleged risks being merely the invention of special interest groups and a scientifically illiterate media: for instance, the alleged risks posed by unpasteurised milk products, by second-hand smoking, by aflatoxin in nuts and cereals, by farm diesel tanks, and so on — all of which have led to massively intrusive regulation, with few proven benefits and with enormous hidden costs. Since two of the most important aspects of risk management — detecting and evaluating risk — depend on accurate and objective scientific data, this is hardly a minor matter. Rather than risk policy being driven by science, science instead is harnessed to serve the ideological objectives of often fanatical pressure groups.

Furthermore, the foundational principle of current risk policy is the profoundly incoherent, anti-scientific, and risk-averse 'precautionary principle' which, in its favoured interpretation, tells us not to proceed with any innovation until we have shown that no harm could result from it. This injunction to 'prove a negative' is impossible to fulfil: no responsible scientist can guarantee that a product or process will never harm a human being or the environment. The precautionary principle, by forbidding risks, is in fact the riskiest of all policies, since it leaves us with no basis from which to negotiate our future. (See *Risk of Freedom Briefing on the Precautionary Principle*, issue no. 5, October 2000.) Risk assessment is really about making the most

intelligent choice possible in the midst of inevitable uncertainty.

Finally, the current risk management process does not include an examination of the trade-off between liberty and regulation. As a result, the default position for government policy is that regulation to control risk should usually trump liberty, a position fundamentally at odds with a free society and with human nature. The inevitable result of this failure is that risk-reduction becomes the defining characteristic of public policy. 'Health and safety' regulations, governing every aspect of our lives, prevent us from expressing and expanding our liberty, and from learning how to use it to our own and others' benefit. Consequently, government risk managers reject the core principle of a free society, that individuals should be left, to the greatest extent possible, to make their own decisions about how to act and to live their lives. Risk avoidance threatens to displace personal freedom as our society's core value, and those appointed to manage risk are tempted instead to engage in social engineering, often with little sense of where their policies might lead.

Risk management policy clearly requires a fundamental re-evaluation. We need governments not too risk-averse to put real science in the place of ideology, and real liberty in the place of bureaucratic control.

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A government perspective

Report of the House of Lords Select Committee on Economic Affairs: 'Government Policy on the Management of Risk.' (Vol 1) 7 June 2006.

Abstract:

We have been unable to find any significant evidence to support the widely-held view that Britain has become an increasingly risk-averse society. We are also sceptical about whether risk aversion can be measured in a way that would allow such a view to be substantiated.

We are, however, concerned that public sector reward and assessment systems may emphasise the adverse impact of failure rather than the gains from success, and so encourage excessive risk-aversion.

We can find no clear evidence to support the view that a compensation culture has developed or that this has pushed policy in undesirable directions. The notion that a compensation culture has developed appears to be based more on widely reported anecdotes than extensive analysis.

Government has developed a sound and potentially useful framework for the assessment of risk. The key issue is whether this framework is applied properly. Cost-benefit analysis provides a useful framework for thinking about risk policy, but costs and benefits are often uncertain or difficult to measure and it is important to recognise the limitations of quantitative approaches to risk assessment.

Policy guidelines such as 'As Low As Reasonably Practicable' (ALARP), 'Gross Disproportion' and the 'Precautionary Principle' are imprecise and there is a danger that they can lead to an excessively cautious approach to risk. Unless these concepts can be clarified, they should be discarded.

More attention should be paid in the formulation of policy to the trade-off between personal liberty and public regulation. Policy formulation should take greater account of the specific and accumulated impact of legislation on personal freedoms. The case of passive smoking is an example in which policy demonstrates a disproportionate

response to a relatively minor health problem, with insufficient regard to statistical evidence.

In transport safety policy, the evidence suggests that there has been a move towards greater consistency, but action is still needed to address an inappropriate differential in the level of road and rail safety expenditure.

Knowing risk

John Adams

Risk is all in the mind. It is a word that refers to a future that exists only in the imagination. Contrary to the insistence, routinely found in discussions of the subject, on a distinction between 'objective' risk and 'perceived' risk, all risk is subjective. To take a risk is to do something that has a possibility of an adverse outcome. Why should anyone want to do such a thing? Because, as well as possible adverse effects, risks also bring rewards. Of course, everything we do carries some unknown probability of an accident — an unintended, undesired outcome. The opening of a longer article for *New Scientist* (17 Sept 05). See <http://john-adams.co.uk/> for complete work and archive.

Criminal calculation

Theodore Dalrymple

Man is a curious being who often wants two contradictory things at the same time, for example security and excitement. On the one hand he wants to know that no real harm will come to him, but on the other he wants to indulge in exciting activities whose outcome cannot be fully known in advance.

For a certain sector of the population, crime is the answer to this particular dilemma. Crime is undoubtedly risky, and therefore exciting, but nothing

practice six months means three (at the very most, for there are other schemes under which prison sentences may be yet further shortened). However, let us for the sake of argument suppose that burglars receive twice the average sentence. This means that burglars serve, on average, 180 days in prison for every 156 burglaries: not much more than a single day per burglary. In other words, a burglar runs the risk, for every burglary, of losing one working day.

It is easy to see that the likely economic gain from each burglary is more than most burglars would earn from a day's

who regretted the shortness of their sentences and who had hoped for longer ones. Of course criminals do not know the precise statistics that govern the likelihood of their conviction and imprisonment: but a man who (to take one example known to me) was fined £50 for his 57th conviction for burglary must have learnt that the risks to himself of burgling were not very great. There is thus a general awareness in the burgling community that burgling is worthwhile.

What is true of burgling is true of other crimes. Thus criminals, at least in contemporary Britain (no doubt with some notable exceptions), are not acting under some deeply peculiar compulsion that derives from their background in a way that only psychologists, psychiatrists, social workers, criminologists and others can discern, unravel and repair, and only after many years of specialist training: they are behaving in a manner that is a perfectly rational way to fulfil their desires, wicked as that way, and those desires, may be.

Criminals are like the rest of us: they are risk-takers. Like the rest of us (with exceptions, of course) they weigh up the risks. When the risks are obviously too great, they control themselves. Apart from those criminals who actually want to go to gaol, criminals can generally control their urge to illegal acquisition in the presence of one, or perhaps two, policemen.

Theodore Dalrymple is a psychiatrist who has written widely about his experiences as a prison doctor.

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too terrible happens, at least in Britain, if you happen to be caught. Furthermore, it pays.

Let us take domestic burglary as an example. According to official statistics, one in twelve domestic burglaries is cleared up by the police. (Actually, the real figure is lower, both because some burglaries go unreported, and because of the corrupting system of crimes 'taken into consideration' that inflates the figures of police success: but for our present purposes let this pass.) One in thirteen convictions for burglary ends in a prison sentence. This means that, on official statistics, 1 in 156 domestic burglaries ends in a prison sentence.

The average prison sentence in Britain is 6 months, but there is automatic remission of half. This means that in

honest labour, which in most cases would be unskilled. Burgling is also more exciting than stacking supermarket shelves, or whatever else burglars might otherwise do: and so burglars, at least in Britain, are a clear example of Homo economicus. The real question in Britain, therefore, is not why so many people burgle, as why so many people do not burgle. Most people in the position of burglars, thank goodness, do not behave as Homo economicus should.

Actually, the figures are more in favour of the rationality of burgling in Britain than I have so far suggested. From my private conversations with many prisoners in the course of my work as a doctor in a prison, it is clear that up to a third of them prefer life in prison to life outside, and therefore do much to assist the police in their own capture and conviction. I have even met prisoners

Publications

Risk by John Adams, Routledge, 1995. Adams show through examples how people tend to circumvent safety measures and so re-establish the same level of risk as they were originally exposed to. For example, if a bend in the road is straightened, the level of risk does not decrease, since people will simply drive faster.

Understanding and Managing Risk Attitude by David Hillson and Ruth Murray-Webster. 2nd ed, Gower, 2007. Considers the dynamic of human actions and how they affect practical risk policies and best laid plans. Aimed at corporate risk managers.

Cellular Phones, Public Fears and a Culture of Precaution by Adam Burgess, Cambridge University Press, 2004. Explores how particular risk perceptions, such as those concerning mobile phones, become heightened and institutionalised.

Government Policy on the Management of Risk Volume 1; Report, HL paper 183-I Select Committee of Economic Affairs, the House of Lords, June 2007. The select committee called for terms used in the debate over risk to be tightened up (see abstract, inside pages).

The Concept of Probability by John Lucas, Oxford University Press, 1970. A comprehensive theory of probability which shows its place in rational thinking. For more of J.R. Lucas's work see: <http://users.ox.ac.uk/~jrlucas>

Target Risk 2: A New Psychology of Safety and Health by Gerald J.S. Wilde, 2nd ed, PDE Publication, 2001. Presents a 'theory of homeostasis', which holds that new safety measures fail to reduce accidents because they do not influence people's willingness to reduce their exposure to risk. Wilde proposes that incentives should be used to encourage people to exercise caution.

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WWW.

The Institute of Risk Management

Risk as a subject of education, a layer of management, a career, is clearly brought home by the breadth of activities run by this institute. <http://www.theirm.org/>

Risk in a hypermobile world John Adam's blog where there is a rich resource of examples and comment, particularly related to transport and road safety policy. <http://john-adams.co.uk/>

We have nothing to fear but the culture of fear itself by Frank Furedi, April 2007. This article and others that consider risk and society can be found on the author's website: <http://www.frankfuredi.com/>

The Democracy Institute

Think tank devoted to public policy issues such as risk management. The institute, in conjunction with Wilton Park Conferences, recently organized a conference on the theme of *Managing Risk: Sensible Precaution or Fear of Trying?* See website for links and for relevant articles on risk. <http://www.democracynstitute.org/>
Comments to: info@riskoffreedom.com