

Risk and Enterprise

Cranfield

12th September 2007

Good evening

Risk and Enterprise

I chose this subject for my Inaugural Lecture for the 252nd Session of the Royal Society of Arts because I believe that a series of factors have given many people a distorted sense of personal risk. This is having a damaging effect on the government of our society and on our personal attitudes to risk and enterprise.

Objectives

I thank you all for being here today. I would like you to feel that your time is well spent and therefore I hope that I can offer you two benefits. The first part of this lecture about levels of risk should act as a stress reduction therapy for each of you. When you leave here today I trust that you will be a little less worried about the threats in your daily lives. Secondly I would like you to feel liberated by that better understanding of risk and to want to go out into the world and be even more enterprising in your life than before.

Let us start with the ultimate risk. Death may have no dominion but, like taxes, it seems to be inevitable. We can use it to gauge the accuracy of our perceptions of risk.

Number of Deaths

I would like you to consider three questions:

How many people will die today?

How likely do you think it is that you will die in the next year?

How much more likely is the average person in India to die in the next year compared to people in Europe?

World Death

The answer to the first question is that 150,000 people have died in the last 24 hours. That is equivalent to two Hiroshima atom bombs or 50 World Trade Centre atrocities. I confidently predict that another 150,000 people will die in the next 24 hours. Interestingly, in the same period 350,000 will be born.

Country Comparisons

The chances of dying are of course different across the globe, although not always in the pattern that might be expected. This slides show the chances of dying in Africa, the most dangerous continent. The most perilous country is Mozambique where you have a 2.9% chance of dying in a year.

Europe

The answer to my question about how likely is it that each of you will die in the next year is about one in a hundred, 1%. This slide shows a range of European countries from Latvia in the cold north and influenced perhaps by its Soviet past to Cyprus and Malta with their warmer climate and Mediterranean diet.

Great Room

If we take that average European percentage of 1% then it may be helpful to put it into context. The Society's Great Room in John Adam Street in London holds about 200 people so it is likely that only 2 of those at any of our many excellent lectures will not be around a year later. That probability is just less than the chance of tossing six coins and all of them coming up heads. However please do not blame me if you go home and toss the coins and that is the result you achieve.

Asia and the Middle East

Most people answer the question about the likelihood of dying in India in the next year by saying that perhaps there is a two or three times greater chance than in the UK. However interestingly you are less likely to die in many developing countries than you are in this country. For instance in 2002 Iraq had one of the lowest death rates. The main reason for this is of course the lower average age despite the much lower level of medical care.

Cars/Trains/Planes/Accidents+Events

Please now think about Europe and the main causes of death. There are firstly horrific car accidents, plus the dangers of traveling by rail and air. There is the ever present danger of assault by strangers on our streets, or even by our loved ones in our homes, and even the terrible acts of terrorists. Sadly some old people collapse in the street and there are the drug-resistant bugs awaiting us in hospitals. There are freak accidents of people dying from parachuting or drowning while SCUBA diving. It is not surprising that we are an anxious nation. Death is not the only risk we all take, and serious injury is also terrible, but public policy tends to be driven by deaths rather than injuries.

Number of Deaths

I would now like to look at how we die and consider a few facts about mortality which may help to put risk into context. We have seen from the worldwide figures that about 1% of the UK population dies every year. I shall actually use the figures for England and Wales to illustrate my points as since the introduction of devolved governments in Scotland and Northern Ireland they now have responsibility for their own statistics. However in England and Wales, as in the whole UK, about 1% of the population die every year, a total of 535,000 in 2002, the last year for which complete statistics are available.

By Age Group

% By Age Group

% By Age Group

How do you think you and those close to you are going to die? May I ask you to ponder on the risks which you have thought about over the last few weeks. Have you worried about going on a train or a plane, about terrorist activity, about what might happen to a child or grandchild being run over in the street? Have you taken some action or deliberately foregone some activity to mitigate these risks? Well let us look at some statistics to see how valid are your fears.

External Cause Pie-Chart

Causes of Death

Very detailed statistics are kept by the UK Registrar General. I hope that when you thought about my question you all remembered that the two largest causes of death are problems with the circulatory system and with cancer. These together account for almost two-thirds of all deaths.

In fact all diseases together account for 96.9% of all deaths. As doctors say, the best advice they can give you is to choose your parents carefully. After that it is up to you how you look after your body because it is from within that you are most likely to die.

Causes of Death (2)

Only 3.1% of all deaths are from these external causes which are the only ones where action other than medicine, surgery or lifestyle can be applied to improve the situation. This was a total of just 16,693 deaths in 2003 out of the total 535,000.

This means that although each year we have about a 1% chance of dying, we have only about a 0.03% chance of dying from external causes. This means that on average only 1 in 3,000 of us will die from external causes in the next year.

Great Room

Put in the context of the Great Room this means that we would have to assemble 15 similar rooms and fill them with people and then on average only just one of them would die from external causes in the whole of next year.

External Causes

With that background let us look at what these external causes are. As might be expected one of the largest ones relates to transport, with 2,900 deaths mainly on the roads but including 40 water and air accident deaths. Less reported, but almost as significant, 2,700 people died from accidental falls of which the biggest proportion involved stairs and steps. Then the classic reasons about which we read so much in newspapers, being fire, drowning, electricity and exposure to the elements, which claim around 1,200. Other accidents claimed nearly 4,000 but get little publicity because they happen one death at a time.

However deliberate human action is also important with your being more likely to kill yourself intentionally than to be involved in a transport accident. There were 3,270 deaths by self harm, normally known as suicide. You are more likely to kill yourself than you are to be killed by somebody else with only about 2,000 deaths a year from other human intervention, often resulting in murder or manslaughter charges. Finally 435 died as a result of medical mistakes and misadventures.

Chance of an Incident (1)

In fact in 2003 there were only four fatal passenger incidents on the railways, a chance of 1 in 10 million for those traveling. There was a chance of 1 in a million for those traveling by air, and they were all lost in private aircraft. Even July 2005's terrorist outrage in London was only a chance of 1 in 1 million for the English population, although about 1 in 160,000 for those actually in London. The likelihood of a child being run over in any year is about 1 in a quarter of a million.

Chance of an Incident (2)

However we accept many other risks because of the benefits they bring. It is part of our human makeup that what we see repeatedly we begin to accept as normal.

We use stairs and steps even though we have a 1 in 75,000 annual chance of dying on them. We have many drugs and household potions but there is a 1 in 64,000 chance of being poisoned accidentally. Driving in a car has a 1 in 40,000 risk every year. Being a motorcycle user increases that risk to 1 in 2,500. This is 4,000 times more dangerous than being a train passenger, but those using motorcycles seem to think it acceptable for the benefits it brings.

This analysis shows that humans are not particularly good at estimating risk. Research shows that we have a tendency to underestimate risk over which we have some control, and to overrate risk over which we have no control.

Age of Death

Another key question is "How much more likely do you think a child is to die from external causes than an adult?" The whole area of Risk and Childhood will be explored in the first detailed report by the RSA Risk Commission which is being launched at the RSA in London on the 31st October. I do hope that many of you will be able to come.

We can look at how the chances of external death vary with age. We have seen that on average there is a probability of 1 in 3,000 of dying from external causes. However this changes markedly by age.

Against the impression you perhaps had before this lecture, you may be surprised to learn that by far the safest age for accidents is from 0 to 14. The total external fatalities in that whole age group are just 317 out of 10 million such children. It is the safest time. Life begins to get more dangerous for the 15-19 age group which registered 600 deaths but then it levels off to around 1,000 deaths for each five year group from 20 to 79. There is then an increase to about 1,500 a year for each five year group above 79.

Percentage Chart

Children up to 14 have a very small chance of dying by external causes, less than 0.005% or one in twenty thousand. From age 20 to 74 the proportion is very stable, being about 0.03%, or the same 1 in about 3,000 we saw earlier.

The proportion does rise steeply from age 75 upwards. However even for those over 90 only one such person in 200 will die from a non-medical issue.

These are the facts, but they are not our usual perceptions. However we know that these statistics become meaningless if the person killed is someone we know.

Carrie Taylor

This is particularly poignant for the RSA because we did lose one of our staff members, Carrie Taylor, in the 7/7 bombing on the Aldgate tube. Our great sympathy was expressed to her family and friends, we opened a book of condolences and we are planting trees in her memory. However we all realize that nothing can bring her back to us.

The Public Policy Effect

Public policy has to balance the national statistics with the personal tragedy of loss of life or of injury and apply the available resources in the best way possible. This is however increasingly difficult with the distortion of public understanding of risk.

I hope the analysis I have shown you about the causes of death has led you to realize that your own perceptions may have been distorted.

It is clear that something is seriously wrong when teachers feel unable to take children on school trips for fear of being sued. The Financial Services Authority, whose origins go back to Robert Maxwell's activities, is now seen as hugely inhibiting efficient business by perfectly respectable companies but failing to stop any real criminals. The railways are investing £20 million to prevent each likely rail death whereas there are many more cost effective road safety schemes that are unfunded. The Dangerous Dogs Act and the Handgun Act were both classic examples of when politicians said something must be done.

It is important for the public to understand that there is a level of risk in any activity. Government and others may do everything they can to mitigate that risk but it is not going to go away past a certain point. There are no perfect systems. There is always going to be an irreducible residue of risk that cannot be removed.

Life is safer than it has ever been but we seem less prepared to accept risk in anything we do. We need to make sensible decisions about what really is dangerous, formed on the basis of weighing up the facts, rather than on public hysteria. By making everything appear life-threatening, we are in danger of crying wolf once too often.

Media

Historically we learnt about risk from our community: the village or district where we lived. We observed that death largely stemmed from natural causes and that was the way in which most people were lost to us.

Nowadays we all live much less of a community life and get our news not from our neighbours or the local vicar but from the increasingly fragmented and competitive broadcast, print and electronic media.

I believe that there is also a systemic problem in that many of our journalists are people with degrees in English, Philosophy, Politics or other humanities but who do not have an equally advanced facility with numbers. Many of us who have read a newspaper article on a subject we know about will have observed that it is often the numbers which are wrongly quoted. I believe that any serious media channel should have a sub-editor who is numerate as well as one who is literate to make sure that any numbers presented are factually correct and provide a balanced view of the subject.

Aircraft

You will have noticed that aircraft accidents are prominently covered in the media. You do not often read, as a balancing factor, for instance, that more than three million people around the world fly on commercial aircraft every day. There are about 25,000 commercial aircraft worldwide and they each spend about a third of their time in the air. This means that at any time there are about 8,000 planes up there flying around.

However it is the small number of planes that crash which reach the front page and give people their concern about flying.

MMR (1)

Similar considerations apply to reports of medical risks. We are all aware of the debate about the MMR vaccine.

MMR (2)

This was fuelled by one subsequently disparaged medical research report.

Ibuprofen

In another scare a headline said that there was an increased risk of a heart attack in those taking Ibuprofen, a pain killer, for arthritis. The risk was described as rising by a quarter. As a result many older people were worried about continuing their medication. In fact the increase in risk was about one additional heart attack in every 1,000 patients, a very small difference compared with the better quality of life that could be enjoyed. However this detail was buried in the article.

Equally with road accidents or murders, the facts, the pictures and the grief are displayed but rarely is the incident put into any sort of context.

Grief

Indeed the grief can become the story as it did with Princess Diana, Jamie Bulger, and Holly and Jessica in Soham. Politicians join in to provide the most heartrending soundbites. The awful visibility of things that go wrong is intense compared to the private unpublicised benefit of the vast majority of successful human activities.

This is such a contrast with the Aberfan coal tip disaster of 1966 in Wales when the press voluntarily left the town alone to come to terms with its grief.

Front pages, and the top slot on the television news, can be reached by a huge range of Warhol's 15 minute celebrities. From a drunken sportsman to searing photos of a young murder victim, our sense of proportion is constantly challenged. The result can be seen in the way in which the 3% of those who die from external causes seem to dominate our thoughts. The compensation culture further exaggerates this. There is a real possibility that a necessary interest in safety may degenerate into a damaging and restrictive panoply of fear.

Even the dying do not get equal billing. In 2003, 53 people died in their bath, more than the number of child pedestrians killed on the roads, but none of those tragedies appeared on the front page of the national press. I suppose we should be grateful that nobody has yet started a campaign to inspect all of our baths, to monitor how we approach them and to make sure that they are safe and that we are properly trained for the task of using them.

Law of Unintended Consequences

However in the same year, 1993, four children were drowned in a boating accident at Lyme Bay. This had extensive front page coverage for days and it led to calls that "something must be done" about adventure centres. I was involved with this as I was a ministerial adviser at the Cabinet Office responsible for the main areas of regulation.

The result of the uproar was a classic case of the Law of Unintended Consequences which is that actions of people—and especially of government—always have effects that are unanticipated or "unintended."

Sometimes we need to pause for a moment and think whether we will not do more damage with a hasty response than was done by the problem itself. We cannot respond to every accident by trying to guarantee ever more tiny margins of safety. We cannot eliminate risk. We have to live with it and manage it.

There is usually a seductive logic to any new regulation. There is almost always a case that can be made for each specific instrument. The problem can however be cumulative. All of these good intentions can bring unintended restrictions with suffocating effects.

Lyme Bay Tragedy

I mentioned that I was involved in the aftermath of the Lyme Bay tragedy. Between the four deaths in March 1993, and the introduction of an Act of Parliament in January 1995, opinion was sharply divided between those demanding statutory regulation and those maintaining that self regulation on a voluntary basis was adequate.

The parents of the teenagers who died in Lyme Bay were campaigning hard for statutory regulation. In December 1993, a national morning paper stated that "Thousands of children are facing appalling physical dangers because of the Government's refusal to bring in laws controlling holiday activity centres."

Throughout this period the Government and the independent Health and Safety Executive maintained its position that it believed statutory accreditation was unnecessary.

However the campaign for regulation gained momentum, supported by the Association of County Councils, the National Union of Teachers, Holiday Which?, The Townswoman's Guild, and the media, parents and teachers. The opinion of the Health and Safety Executive, that further regulation was not necessary, was challenged by the campaigners, on the basis that children were entitled to a greater measure of care than the general public.

Inevitably a Private Members Bill was introduced to establish a statutory scheme and the government, given the media pressure, assented to it. I was then involved with my Cabinet Office responsibility for regulation in reviewing the proposed detailed rules drawn up by the Home Office and HSC. Most interestingly, in private these officials conceded that the Lyme Bay tragedy would still have occurred even if the new licensing system had been in place, as the combination of factors which caused it could not have been foreseen.

In all of the reviews and investigations which had taken place, 1,500 adventure centres had been identified for licensing. In the end just 888 centres applied for a licence of which all but 13 were granted one. Many others stopped providing adventure opportunities for under-18's.

As a result, since 1996 literally millions of children activity experiences have not taken place.

HRH The Duke of Edinburgh

The consequences of reduced activity holidays were described by the President of the RSA, HRH The Duke of Edinburgh, who is also the Chancellor of Cambridge University. He said:

“However, genuine accidents do happen and it is important to differentiate between incidents which are due to lack of knowledge and experience and those which are genuinely unforeseeable accidents. There is naturally an emphasis on the risks inherent in all adventurous activities, but this needs to be balanced against the risks of not being allowed to take part. We should take into account the consequences to young people of not being exposed to any form of physical challenge. It can result in a lack of fitness and resistance to disease, to obesity. It can lead to the choice of alternative 'thrills', such as drugs, drink and crime; and it can lead to alienation from the family and to becoming unsuitable for employment. The question that the safety-obsessed need to answer is, are the risks in adventurous activities more acceptable than the risks of the alternatives?”

What is Risk?

The consideration of risk is a personal matter. The dictionary defines risk as being exposed to hazard or danger. Every decision that we make from the most trivial to the most important is attended by some sort of evaluation of the costs and the benefits, and the likelihood of a successful outcome.

To accept any risk is to accept a possible loss. Risk taking is inherently failure-prone. Otherwise, it would be called “sure-thing-taking.”

Mathematically, risk is seen as the variability in the distribution of the possible outcomes. There is a whole literature showing that the higher the risk you take the greater the most likely return but also the greater variability in what you will achieve in any one attempt.

With hindsight it is apparent when tragedies occur what was the level of risk that was accepted but not responded to effectively. However understanding what the benefits might have been often gets lost. We must understand this as well if we are to have a sensible debate.

Risk is rarely given a balanced review. It is not just negative. It is a balance of potential outcomes in terms of both the positive and the negative. The Chinese symbol for risk a combination of the symbols for challenge and opportunity. Whether to stay in and avoid the dangers of the night, or to go out and enjoy company? To test one's skills, either succeeding or failing, or to never know? To try the untried and invent something, or to accept what has gone before?

Types of Risk

Risk can be caused by humans, by nature and by physical and biological agents. Risks can occur to individuals, to public and private organizations, and to society in various geographies. As well as the risk to life and limb there are of course other forms of risk such as economic risk and reputation risk.

Risk and Learning

Why then do we take risks? The key reason is to expand our level of experience. This may be taking a journey to see other places or people, it may be an exploration to discover new mountains, oceans or planets, it may be to give ourselves a thrill or it may be a risk of spending time or money on pursuing an idea to see whether it is valid.

Taking more risk means that one samples from a larger pool. While there is an increased chance of there being a problem, there is also a probability of finding something new and innovative.

Risk taking increases the probability that one will find something of value despite the search cost. It creates the possibility of a large gain in experience, capacity or knowledge. Those who do not take a risk cannot expect such benefits.

Over the course of human history every major advance has occurred because of the temerity on the part of human beings in trying to understand more and to do something that has not been tried.

Art and Uncertainty

This works similarly in artistic endeavours where Norman Foster has said: "Creativity and arts are troubled by aversion to uncertainty."

Thousands of artists have historically explored their medium. They took great time and often lived in poor conditions as they tried to find a truly step change in creativity. However we know that only a handful of those thousands have actually left a lasting impression. This validity usually only becomes clear with hindsight, often after they are dead. However when artists stop experimenting then their work becomes repetitive.

Picasso

Even that most creative person Picasso felt the same sort of problem. He said "success is dangerous, one begins to copy oneself. It is more dangerous than to copy others, it leads to sterility".

The human spirit and its evolution therefore require risk taking. The greatest risk may be not to explore at all.

China

We must recognize that we must not get so risk-averse that we just do not go out and seek new horizons.

We know from history about the consequences of forsaking exploration. In the 15th century, China had the opportunity to be the world's foremost maritime power and, indeed, possessed that capability. The Chinese ruling class, nonetheless, decided that the sponsorship of the fleet was an indulgence. As a result it became inward looking and failed to maintain its cultural and scientific superiority for the next five centuries.

Risk of No Risk

Theodore Roosevelt once said: "The only man who never makes a mistake is the man who never does anything."

Similarly Mark Twain opined: "Twenty years from now you will be more disappointed by the things you didn't do than by the ones that you did do. So throw off the bowlines, sail

away from the safe harbour. Catch the trade winds in your sails. Explore. Dream. Discover.”

I believe that life is best approached in a spirit of exploration and enterprise. People need to recognize that bad luck and unforeseen circumstances are inescapable aspects of life and that absolute safety is unachievable. They also have to understand that without taking some level of risk our society would stultify and cease to advance. We need sensible education and balanced information to allow people to strike their own appropriate balance between risk and safety and between achievement and opportunity.

William Shipley

The founder of the RSA in 1754 was William Shipley. He set out his manifesto in the Age of Enlightenment and his first objective was to embolden enterprise.

In our 250th Anniversary Year we reviewed his original Manifesto but we kept as our first objective the need to encourage enterprise. Somebody has to generate the knowledge and wealth to make the national cake bigger before others can come along and distribute it for good causes. This is nowadays even more important. Our heritage is as part of the one billion people in the developed world. Perhaps our European politicians do not point out often enough that we are competing with five billion motivated and connected people in the developing world. They can cost effectively provide increasing proportions of our economic needs. We pay people more not to work than they pay people to work. We continue to concentrate on how to slice up the economic cake while they are focussed on making the cake bigger. We are trying to achieve the 35 hour week while they are trying to achieve the 35 hour day.

Modern World

Enterprise is now very much more complex than when the RSA was founded. However even the largest companies must find a way to move forward or otherwise they disappear. We sometimes see large corporations as being dominant and eternal but the corporate womb is actually very risky.

Of the top 25 corporations in the US in 1900, only two were in the same league by 1960, a 92% dropout rate. 3% compound per year.

In 1960, Forbes magazine selected the ten best run and most profitable businesses in America. By 1985 one was bankrupt, two had disappeared and four were in serious trouble, leaving only 30% successful. 5% compound per year

Probably the most influential management book of the 1980's was In Search of Excellence, published in 1982. In 1984, Business Week magazine did a cover story entitled "Oops". The verdict from Business Week was that "at least 14 out of 43 companies highlighted by Peters and Waterman just two years ago have lost their lustre". That's a 32% fall-out rate in two years. 15% compound per year.

It is not much different in the UK where Chief Executives of major UK public companies now have an average time of less than four years in the top job.

Premier Brands

Back in 1985 I led the buy-out of the food companies of Cadbury Schweppes to form a company called Premier Brands. I remember one incident when we were phoned by a

newspaper and told that they had a report that there was dioxin, a cancer agent, in our tea bags. New evidence had come to light as the power of spectroscopic analysis had increased. When we investigated we found that the concentration was one part in a thousand million. We pointed out that this is about the same as the number of feet between here and the moon and that dioxin is found in many other situations at that intensity. There were however some anxious hours when our tea bag business could have been decimated by such a news story.

We were hit by an actual safety scare when Esther Rantzen's That's Life television programme, on the BBC broadcast a feature about a promotion for Cadbury's Drinking Chocolate and asked if it was safe. It had all been approved by the relevant authorities and nobody was hurt at any stage. However the mere mention on the programme caused the retailers to require us to remove all of the product from their shelves. This cost us over £200,000.

Darwin

The basics of business and competition have not changed. Darwin was right. The fittest survive. In evolutionary terms, risk-taking could be said to have arisen as a response to the harsh environment. Species that took risks survived to propagate.

In his famous book *The Naked Ape* which compares humans to animals the author Desmond Morris demonstrates the importance of our evolutionary origins. He describes how for millions of years life was really tough as we were living in caves. He says that "we needed to stay alert, to look out for the main chance and to seize upon any opportunity we could find". This is unwittingly a remarkably good description of a creative entrepreneur. As it is a basic result of human evolution, creative and entrepreneurial drives can be found across the globe.

Entrepreneurship requires taking a view of the future, generating a vision around an idea, and then mobilising resources to achieve it.

Swimming with the tide

In a watery analogy, Robert Heller has stated that swimming with the tide, and landing on whatever shore it chooses, is a legitimate strategy. For some it may achieve excellent results with relatively little pain. They may well do better than the heroic navigator who heads off hard for his own choice of destination. That entrepreneur takes more chances, which include the possibility of drowning en route. On the other hand, if the destination has been well chosen, and if he reaches the promised land, the heroic explorer may well find the returns that are denied to the bureaucrats.

Enterprise and Learning

Enterprise is about new ideas and turning them into commercial reality. Unfortunately the risk averseness of the general population also has an effect on this.

Our education system has much to answer for. Its primary purpose should be to empower young people to take control of their lives by encouraging them to take progressively increasing responsibility for their actions, their learning, themselves and each other. This is hugely prejudiced by such stories as teachers being too worried to take children on trips and of pupils not being allowed to play conkers unless they are wearing goggles.

I am Chairman of the Enterprise Education Trust with which the RSA cooperated recently year to produce a pamphlet on entrepreneurship. We work with 2,000 companies who provide their managers to go into schools to tell students about the opportunities and challenges of business.

To support this we do a number of research studies. These highlight the problems the country faces in becoming more enterprise oriented. Our most recent report was done for us pro bono by the market research company NOP World.

This showed that two thirds of 14-19 year olds believe that their knowledge of business and industry is pretty vague. 42% of them see the world of work as scary.

NOP said:

“The report has found that young people tend to base some of their impressions about business and industry on stereotypes. These impressions were often formed from the media, in particular film and television. These stereotypes failed to convey an accurate and complete picture of the realities of modern business.”

Children watch an average of 18 hours of television each week, more time annually than is spent in the classroom. Unfortunately, as we have seen, the media tend to portray the accidental and negative rather than the beneficial and positive. There will be extensive discussions about fat cats or what went wrong at Enron. In contrast there is little about the challenges companies face in staying competitive, maintaining employment and generating the wealth needed to support the country’s social goals.

Entrepreneurs (1)

Entrepreneurs think the unthinkable.

Entrepreneurs (2)

The thing which differentiates them from other people is that they actually then go out and do it.

We should remember that most of the major advances have been made by small entrepreneurial companies, not the existing giants. The railway companies did not invent the aircraft industry and IBM did not invent the Internet.

Entrepreneurship is exciting. There is the potential for huge emotional and financial rewards. The future is however uncertain. None of us can know whether an idea will succeed. Any new venture requires a whole series of elements to come right: the idea itself, the marketing strategy, the management team, the finances, sales and distribution, and the ability to stay ahead when competitors try to follow. Each of these has to be right so the chance of being successful is what is known as a multiplicative probability.

Witnessing companies growing quickly is like watching a rocket blast off. There are those that blow up on launch, others make it part of the way before being destroyed, but some do make it to their destination.

US Study

Venture capitalists are the most sophisticated reviewers of new business ideas. However there was a major US study of 17,000 transactions in 8,000 companies,

representing \$114 billion between 1987 and 2000. This found that only about 15 percent of companies achieve large returns but a third achieve returns below 35 percent, and 15 percent of the companies deliver negative returns.

This means that even with the best due diligence, half of the companies produce small returns or lose money. It is the few successful ones which pay for all the others. Despite all of the expertise available, nobody has yet come up with a certain way of spotting the winners.

Gates

To take a very simple example, who here would invest in this management team? They have all the bravado of being the leaders of tomorrow. In fact some of you may know they are the leaders of today. This is the Microsoft team photo of 1978 with a young guy called Gates in the bottom left hand corner. If you had been on the spot at the time with £5,000, you would now be a multi-millionaire.

Risk and Enterprise

It is clear that nobody can easily predict likely success. Who would have backed a company that wanted to sell mobile phone ringtones, now a multi-million pound business, or to sell coffee retail at £2.00 a cup. As with artists it is only because thousands of people will keep taking the risk to try out new ideas that a small number will become great successes. Many are called but few break through.

Enterprise is like exploration in that we cannot know at the start whether it will be successful. We may do all of the things we can to make it work but only time will tell if all of the ingredients are right.

This does not only apply to new companies and to entrepreneurs. We need to apply the same objectives in all of our activities. New ventures and exploration are as much needed in the charitable and social sector as they are in business. There are multiple good ideas for starting charities and seeing which ones will find a viable model of success. The RSA itself backs projects in line with its motto of inspiring the future and it knows that it cannot always predict which will make the greatest impact. However if we are all to push forward the frontiers of knowledge then risk must be taken and resources allocated even if there is no certainty of success.

Gates

Remember that not even Bill Gates gets it all his own way.

Theodore Roosevelt

The importance of enterprise was vividly described 95 years ago by Theodore Roosevelt:

“It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood, who strives valiantly; who errs and comes short again and again; because there is not effort without error and shortcomings; but who does actually strive to do the deed; who knows the great enthusiasm, the great devotion, who spends himself in a worthy cause, who at the best knows in the end the triumph of high achievement and who at the worst, if he fails, at least he fails while daring greatly. So that his place shall never be with those cold and timid souls who know neither victory nor defeat. “

RSA

The RSA's first objective was to embolden enterprise. As I have set out in this lecture we have identified that an understanding of risk is vital if our population is to remain enterprising in both business and other walks of life.

I mentioned to you one of my experiences when I was at the Cabinet Office. Arising from that review of regulation we decided to try to create an independent commission to advise the government on the level of risk inherent in different public policies. I am also aware that the current government has also looked at the same concept. However it became clear that it is politically impossible for a government to do this because it quickly has to begin debating topics such as the value of human life which are impossible for politicians to stand up and defend.

The RSA is however independent of government and receives no government money. In addition it has a long history of courageous intervention. As shown by this audience today, it can attract people from a wide range of disciplines to contribute to its deliberations.

We have therefore set up a Risk Commission, which I chair, to explore these issues in more detail and to determine ways in which a better public understanding can be achieved. We shall be looking at total risk and as well as our childhood study, at areas such as transportation, medicine and business. Our advice will cover a framework for government on setting public policy, guidelines to the media on producing a balanced story, and information for the general public about how to evaluate risk.

We believe that an understanding of risk is fundamental to living in a modern society and we welcome input from our Fellows and others about the issues I have described in this lecture. I am also hoping that we shall set up similar bodies in the US, India and Brussels.

Conclusion

I therefore hope that I have been able to fulfil my two objectives this evening as it is vital that we all understand the concept of risk. I have attempted to give you some comfort about the risks you face in your daily lives. I hope that you will feel a little safer and less under stress when you next get in your car, go on a train or have to look after some children.

I would also like to think that I have been able to motivate you to allow a little more risk and excitement into your life. I hope you will have a slightly more sprightly spring in your step. You will approach the daily round with more of an appreciation of exploration and discovery. You will embrace risk in order to achieve even more. May you all be lucky when you take a chance and may it bring you a good return. Remember that the more you practice the more likely you are to succeed. Luck favours the prepared mind.

Let us all go forward, as William Shipley commanded us, to embolden enterprise in our own lives and organisations.

Thank you.