Hierarchies of Risk

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I

"We have no future because our present is too volatile. The only possibility that remains is the management of risk. The spinning top of the scenarios of the present."
– William Gibson, *Pattern Recognition*

Risk assessment and management is a serious business these days; professionalised and a major interdisciplinary field of academic research. There's a Society for Risk Analysis and an Institute of Risk Management. There are numerous theories and measures, such as the Arrow-Pratt Measure, Prospect Theory, Risk Sciences, Decision Theory, the academic field of Risk Communication, Risk Treatment Plans; and many varieties of Risk and Decision Analysis software. All these have a power of definition. Just as the British government elite elaborated its own distinction between 'torture' and 'inhumane and degrading treatment', so risk professionals can define what is 'objective' and what 'subjective' risk; what 'external' as against 'manufactured'. Or, define it as uncertainty multiplied by the impact size of a possible future event.

Risk assessment and management's fields of interest include: the environmental future; possible effects of new technologies; infrastructural projects; health and safety, both of work and pharmaceuticals; and the world of finance. While a degree of professional knowledge is required in all of these, this is no guarantee that either assessment or management will produce an 'objective' outcome. There are interests at work in shaping criteria, interpretation and implementation; predominantly these interests are of capital accumulation via profit making. There is no guarantee that an analysis is disinterested just because it is mathematical.

In recent years this process of accumulation has become more extensive and leveraged (debt-dependent), and in 2007 an internal crisis developed that showed up several of its pretensions. 'Excessive' risk-taking and a dependence on mathematicians was blamed, but at a systemic level there was no risk, because banks and other financial institutions were 'too big too fail'. The notion of 'moral hazard' – i.e. that the institutions of finance capital should take responsibility for risk-taking losses – was sidelined, and the risk pushed downwards on to citizens and non-citizens. As for the external risk professionals, auditors, they heard no evil; saw no evil.[1] Neither did 'risk-taking' take long to be re-established as a virtue by capitalism's media class. Not long after Goldman Sachs had repaid its government bail-out money a 'blowout' profit was reported, with the *New York Times* commenting: "Goldman has managed to do again what it has always done so well; embrace risks that its rivals feared to take and for the most part, manage those risks better than its rivals deemed possible."

The melodramatic discourse of 'teetering on the edge' and 'economic collapse' has changed. Such an event must not happen again is one message, but there is also a shrug of the shoulders which implies a selective version of adulthood of which we've suddenly all become members: that's capitalism for you; got to take the rough with the smooth. The economic and technological future is spoken of in a similar voice. It presents itself, says Melinda Cooper, research fellow with the Centre for Biomedicine and Society, as perpetual promise combined with risk, what she calls "selective fatalism".[2] Ours is the only way, it says, great things are on the way, but don't be looking for guarantees; you know the score, shit happens.

II

"Transfer of risk 68% higher than same time last year"
– 'Ten catastrophe bonds close before hurricane season', Reuters: June 1st 2010

Growing up in London in the 1950s, when the welfare state did not just exist but was an article of faith, our neighbour was a cabinet-maker, a highly skilled woodworker. He had a contract to produce *de luxe* TV set cabinets for a well-known company which arranged a strategic bankruptcy, and he was left unpaid for months of work. It was an early view of how, in reality, rather than mathematical equations set in limited and often deceptive parameters, risk gets pushed downwards. This imposition of risk onto those with the least economic power is hardly new.

In June 2010, Foxconn announced its Shenzhen factory in China (which saw wage raises in the wake of a wave of suicides) was too expensive except for iPhone manufacturing.

One of many textile and garment factories in Mae Sot, Thailand. In most cases observed, Burmese workers made up the majority of workers inside the factories, as they were cheaper than Thai labour. Photograph by Daniel Cuthbert, 2009.

The body of Praveen Vijay Bhakamwar, whose accumulated debts of Rs 40,000 (less than US$ 900) pushed him to suicide.
Photograph by Johann Rousselot, 2007.

Farmers have always faced climatic risks in addition to whole cycles of pillage and crop expropriation. Empirical evidence is showing a worldwide range of regional and local extreme weather patterns that are likely to exacerbate this 'external' risk.[3] Other, 'directly' man-made, risks have been created by the way small-scale farmers have been induced, or forced, into joining the world of international 'free' trade; where the dice are truly fixed against their interests. The most terrible and stark consequence has been the well-documented suicides over the last decade of a large number of Indian farmers when faced with unpayable debt. The limits to the efficacy of being simply well-documented, however, is shown in the continuation of this horror year on year. There was some respite in the post loan-waiver year of 2008, but in 2009 suicide numbers rose again. Suicides are especially high amongst cash-crop farmers and, most of all, cotton farmers using a GM type of cotton seed, Bt Cotton, which originated with Monsanto and which was relatively expensive to buy. The promise was of bigger crops and less need for insecticide. But crops did not always materialise, soil was depleted, and secondary pests emerged. One estimate is 120,000 out of 200,000 suicides were committed by Bt Cotton farmers, who also faced lower prices for the cotton. Many died by drinking the very pesticide they had bought to improve their situation, but whose cost formed part of the debt; and which, in the medium term, failed to deal with secondary pests. The deaths were painful. The dead-men-to-be screaming for hours on end.[4]

Outside the specific business of GM seeds, neoliberalism rationalises the transference of risk by contemporary capitalism and also acts politically to enforce it. This was most visible in the attacks on and final demise of several commodity price agreements like that for coffee. This had given a guaranteed price to coffee farmers. Since the 1990s, however, it has been managed by the SMI (Supplier-Managed Inventory) system by which *suppliers* are responsible for maintaining stocks used by the corporate purchaser *even if the stocks are held at a port in the purchasers own country or its own storage.* SMI is a type of modern stock control process enabled by IT development in the 1980s which created Supply Chain Management. It is this, Lyne says, which means: "Risk and cost are passed down the supply chain to those most vulnerable such as developing country farmers, and women or migrant and temp workers."[5] And on top of this is the sheer power of purchasers: wholesale coffee is an oligopoly and a chain the size of Wal-Mart can micro-manage the market.

More recently, 'microloans/microcredit' seen by elites as a method of helping the poor out of poverty at no cost to themselves has, in Andhra Pradesh, become another form of risk-taking rebounding on the poor. The praise accorded to the Grameen bank in Bangladesh made it into a template. It was taken up by conventional Indian banks which financed microloan companies in southern India. The wishful thinking they promoted, risk-without-risk (and profited by), has lead to women committing suicide.

In the richer world, too, there is a marked increase in the numbers of vulnerable workers, which has been well documented. Contracts are imposed whereby employer responsibility is vague while the power over conditions, time, and pay are absolute. The starkest form is the zero-hours contract. This is inherently risky for the worker. Being permanently 'on call' there is little opportunity to earn a living elsewhere, and if the person doing the work is told to go home after three hours, then to-and-from work transport costs mean the income is derisory. In the UK it is a double-risk for people on any kind of welfare income, especially housing benefit, if they are pushed on to work to such a contract – the time lag between such a job coming to a quick end and actually getting housing benefit restored is one of maximum anxiety. It is then, in many instances, a risk to take a job.

Angela Mitropoulos, for one, would say of this working class, and of new forms of insecure work in the richer world, that: "The regular work, or

Protests at 2007–2008 dramatic increases in world food prices. Commodity market speculation is attributed with being one contributing factor.

regular pay, or the normal working day that is regarded as typical of Fordism is an exception in the history of capitalism."[6] True, and none of what is happening in the richer world compares to farmer suicide or the condition of Burmese migrant workers in Malaysia, but the change described *is to the benefit of capital*, whose minders are taking great relish in telling the European working class it's had it too easy and must 'face up to reality'. Attacks on workers with contracts is not for, or to, the benefit of those without. The way in which additional surplus value is being extracted from the reproduction of labour-power itself is, besides, a world-wide phenomena. This can take the form of abrupt rises in the price of basic foods, as in 2008, or, in the richer world, somewhere to live becoming more expensive. What is special about the Western working class, however, goes further than this, as Dick Bryan has described:

"In the last 20 years or so we have seen the household being treated like a small businesses, have seen labour being treated like capital…It requires households to decide whether to have a 20-year or 30-year mortgage, and at a fixed or floating rate; how to balance the car-loan with the credit card etc. These are complex financial calculations that require taking positions about an unknowable future…being working class now means engaging in competitively-driven risk calculation and management…The IMF has, perhaps surprisingly described households as the global financial system's depositories of risk as last resort… in terms of risk analysis. Capital has devices to hedge its risks…For workers, labour power cannot be hedged."[7]

This is the rational individual of classical economics writ large. Only s/he is an individual who must be an expert in reading the small print, and ruthless in suppressing any wishful thinking. The narrative of the 'sub-prime' mortgage 'crisis' has had no space for how high-risk lending put all the pressure on borrowers, women most of all, or how, with its deceptive mix of 'teaser' rates, variable interest rate, and rescheduling costs, it made this borrowing exceptionally expensive, and the cost often foreclosure and likely homelessness.

III

"The message is that there are no 'knowns'. There are things that we know that we know. There are also known unknowns. That is to say, there are things that we know we don't know. But there also unknown unknowns. There are things we don't know we don't know."

– Donald Rumsfeld, NATO HQ, 6–7th June 2002

A form of denial when faced with unambiguously ruling class representatives of capitalist states is to laugh at the way they speak. The mangled prose of Ronald Reagan and George W. Bush are obvious examples. Perhaps it gives us a feeling of superiority, or that such people cannot be serious. This is a highly mistaken viewpoint, and is perhaps one that Rumsfeld was conscious of when, immediately after his 'unknown unknowns' – which came as a reply to a question – he said: "It sounds like a riddle. It isn't a riddle. It is a very serious, important matter." And, as it happened, in this instance, the corporate media also had fun at his expense. Not as a form of denial but rather to smother the significance of what he'd said. For what Rumsfeld's 'riddle' did was to converge neoconservative and neoliberal ideologies of risk. On the one hand it provides a generic justification for the pre-emptive strike, while at the same time establishing risk – risk as a capability and characteristic unique to capitalism and its future – as inherent in the world, its technologies, and economy.

In the recent past the promises of the future were visibly deceptive. Describing the New York's 1964 World Fair, Richard Barbrook talks of how, "Instruments of genocide were successfully disguised as benefactors of humanity".[8] The promise was of unmetered electricity from nuclear fusion[9], a computer revolution meaning more and more free time as a corollary of less work, and space travel. The reality: nuclear weapons, militarized computing, and militarized space use. The promises made now, focused especially on biotechnology, still have a utopian element while being dependent on ever-increasing computing power. What's different is that the 'world is a dangerous place' has more real traction than even in the Cold War period of strategic nuclear weapons. Too much has happened since: Chernobyl and Three Mile Island, deeper and deeper sea drilling and the Gulf of Mexico disaster, and, despite climate change denial, a pragmatic knowledge that extreme weathers have become more common.

In response to the 2001 foot-and-mouth disease outbreak the UK Ministry of Agriculture ordered the killing of all livestock in at-risk areas. 442,000 animals were slaughtered. 80% of culled livestock were clean.

"You'll have access to over 1000 risk engineers… "BECAUSE CHANGE HAPPENZ"

– Zurich HelpPoint advertisement 2010

This relatively new understanding that technological development involves ecological risk is muddied by a culture of selective fears. The human security literature, though it may describe the consequences of globalized neoliberalism, avoids any mention of its economic imperative; the accumulation of capital. There is no obvious machinery at work, but structural adjustment and aggressive trade policies are clearly creators of 'failed states', and yet they come, apparently, as a nasty surprise to the security part of the business; people like Rumsfeld. Similarly, soon after the UN predicted the end of infectious diseases in the 1980s, structural adjustment policy – *austerity* for the poorest people in the world – meant cuts in public health and clean water provision. The consequence: new infections on the rise and the return of old ones, so that by 2000 the World Health Organization was talking of the return of infectious diseases as being more dangerous than war. This reintroduced an old language of 'contagion', with a psychic underlay of the economic migrant as a disease-carrier, while during the technical financial crisis it functioned as melodrama, blood-and-sawdust; the 'risk of contagion' was a constant and added to the pressure for public money to be used. Since then there's been the Greek contagion, while the global scare of a non-occurring swine flu pandemic gave more material to a culture of selective fears.

Dick Bryan's conclusion from his analysis of the transference of risk to the working class is that the state can no longer guarantee the future. But the state has other things to do. Aware, underneath the flim-flam, that the casualisation of labour combined with more conditionalities on smaller welfare payments might, unlike Bryan's working class with its financial obligations, produce a class of people with very little to lose, even in the rich world, the UK state is pre-emptively monitoring[10] such people seen as presenting a risk. There is no pretence here that this might come as a nasty surprise to the ruling class. Instead, risk, like a form of original sin, is seen as a personality disorder within the individual of a certain class. This was visible not just with new Labour's ASBOs, prevention orders, and so on, but especially so in ContactPoint, the identity register of all children in England. As Terri Dowty describes it: "What ContactPoint is really doing is keeping tabs on children, as part of a 'risk management approach' to childhood and youth. It tries to spot problems early. There is a belief that future criminals have certain tell-tale signs about them…"[11]

Simone Bull's 'Color by Numbers: Racism, Power and Risk in a Post-Colonial Context'[12] goes further, talking of a Western obsession with risk and criminologicaly evaluating the 'danger' posed by potential offenders. She cites what developed in New Zealand whereby models were created to marginalize Maoiris and Pacific Islanders, and how 'protection' discourses and supposedly 'atheoretical' mathematics were used to divert attention from an official commitment to the premise of minority criminality. Similarly, Berkeley Law Professor Jonathan Simon has pointed to how 'bad assumptions' 'risk assessment' led to both dodgy mortgage sales and to prosecutors grossly overstating the risks to society of a large number of defendants.

For the generic, potential 'enemy within' there is as yet no overt 'war' rhetoric (the non-legal categorisation 'domestic extremists' being heavy with implication), but in the global world it's all war: against AIDS, drugs, even poverty.[13] It was in the now mocked Rumsfeld's period as Defense Secretary that 'environmental' risks were taken seriously, couched in a language of both war and contagion. In 2003 the Pentagon produced a report on the potential consequences of abrupt climate change for US security, and did so while the Bush Administration was strategically vague on whether there was such a thing. In 2004 the USA approved the largest ever funding project for bio-defense research ($5.4bn) under the name of Project BioShield. Meanwhile DARPA (Defense Advanced Research Projects Agency) was working on creating biological sensors that would respond to both known and *previously unknown agents* to give a warning sign of attack and to develop vaccines and antiobiotics.[14]

These programmes were yet another boost to the US biotech industry, as Melinda Cooper describes. She goes further in her analysis, however, focusing on biotechnology as the perfect material medium for a 'current' of neoliberalism coming out of the Santa Fe Institute which rejects any notion of equilibrium as either possible or desirable. Cooper uses notions of economist Joseph Schumpeter's 'gales of destruction and innovation' and those of chaos/complexity theory; that the unpredictable and the speculative are essential to capitalism as a model: "Neoliberalism and the biotech industry share a common ambition to overcome the ecological and economic limits to growth associated with industrial production through a *speculative reinvention of the future*."[15] It is from this that she can say contemporary modes of capital accumulation are quite comfortable with the unexpected, but in doing so makes one of those quasi-analogies that makes one wary: scientific creativity as an encounter with the unforeseen consequences of the experimental process, and the workings of speculative capital, which, she says, is its 'reality'. This, for one, simply passes over the long-term planning made by capitalist corporations. Those attacks from capitalist ideology on Soviet five years plans as gross and laughable; what did they think, that Pepsi, Sony, Exxon and the rest don't have their own ten year plans, adaptable to circumstances no doubt, but with a clear strategy over the long period?

The historically material connection Cooper does make is that the take-off of the US biotech industry, enabled from above by the Bayh-Dole Act of 1980,[16] was further enabled by the establishment of NASDAQ, a riskier technological stock exchange which allowed pension funds and the like to make high-risk investments; to be 'venture capitalists' as part of the portfolio. On this basis she talks of "a tight institutional alliance between the arts of speculative risk-taking and the actual cultures of life science experimentation." And then cites at length the prospectuses of the biotech sector star, Geron corporation, which amount to a Thesaurus of hedged promise.

IV

"The loose coalition of business firms, policymakers and experts who comment on and/or advise policies about risk in contemporary society have constructed a discourse of euphemisms as a means of disavowing their responsibilities."[17]
– Peter Herries-Jones

However, when it comes to the presentation of new technologies and their possible risks – both environmental and social – the 'known unknowns' and the 'unknown unknowns' make no appearance. Inside a culture of selective fears, and selective pre-emption, people are still treated as rational individuals in the neoliberal form of consumers with choice. In this instance, consumers of what Brian Wynne and others call 'one-way information(s)'. Despite the zero-priority given to critical thought in an ever more instrumentalised education system[18], people are not stupid, and assume that information providers will frame what they provide in their own interest, yet are still positioned as consumers without agency. 'Transparency' is supposed to be the fix to this grit inside the pretensions of the 'information society', and Anthony Giddens' 'reflexive modernity' as making the 'precautionary principle' a reality. Leaving aside the financial realities of the hierarchies of informational power however, there is an assumption amongst all providers that it is not their task "to communicate unknowns – areas of uncertainty or scientific ignorance with respect to their products or responsibilities."[19]

It is not a matter of being hostile to all technological development, but when its dynamics are, by and large, determined by private property interests we are right to be wary not just about to whose benefit and to whose cost, as with GM seeds/crops, but also its irreversibility; master-race fantasies within genetics research and social control in a whole raft of identity technologies and neurosciences. What we look for, short of a social revolution against the dominance of private property interests and the dynamic of capital accumulation, is regulation of such technologies: that agency of some sort can be reached through an accumulation of individual information(s) absorption which, through the obstructive and mysterious channels of representative democracy, achieve effective results.

Regulation then, along with a new doctrine of pre-emption and an older one of insurance (with its pretensions to cost-effective pre-emptive capability) is what is offered against an ever riskier world. It is, however, less and less of an offer. Neoliberalism in its breezy voice is constantly chipping away at effective regulation, whether it be financial or health and safety at work; at damaging 'red tape' which is to the cost of everyone who is not you, the one in the mine or on the oil-rig. This goes along with that shrug-of-the-shoulders, treat-you-as-adults voice: 'You know how it is, regulation is no guarantee, can't legislate for every circumstance, or for individual error'. The International Association of Drilling Contractors (IADC) has a whole set of Health and Safety Guidelines, while the Stanford Encyclopaedia of Philosophy (Risk entry), describing the "expectation value of a possible negative event", says: "It is common to use the number of killed persons as a measure of the severity of an accident." None of this prevented the 2010 explosion of BP's Deepwater Horizon oil rig in the Gulf of Mexico in which twelve workers were killed.

'Guidelines' are the compromise that corporate capital imposes on regulators. In the Deepwater Horizon case key components like the blowout preventer rams and fail-safe valves had not been inspected since 2000, even though the *guidelines* called for an inspection every 3-5 years. The rig had never been in dry dock. BP and Halliburton knew that the wrong cement had been used to seal the well. What is most disturbing is the evidence that the crew and the company overlooked a negative pressure test on the well hours before the 20th April explosion. What was this; wishful thinking, or a suicidal crew? The Presidential Commission report of November 8th says that

Deepwater Horizon oil rig on fire in the Gulf of Mexico on April 21st 2010.

Deepwater Horizon burning as it sinks on April 22nd 2010.

Oil burns during a controlled fire on May 6th 2010.

warning signs were missed, but that "to date we have not found a single instance where human beings made a conscious decision to favour dollars over safety." This misses the point: a survey before the explosion reported several worker concerns but that workers feared reprisals if they reported problems.[20] In a reply that kicks the stuffing out of the banality of the argument as to what is and isn't 'conspiracy theory', Ed Markey, Democrat leader of the Congressional investigation into the event, commented: "When the culture of a company favours risk-taking and cutting corners above other concerns, systemic failures like this oil spill disaster result without direct decisions being made or trade-offs considered."

V

"Worker safety cannot be sacrificed on the altar of innovation. We have inadequate standards for workers exposed to infectious materials."
– David Michaels, director of Occupational Safety and Health Administration (OHSA), USA

The limitations of regulation are that much greater within those areas of technological promise and risk which Melinda Cooper has focused on – the Life Sciences'; biotechnology and bioinformatics. The promise comes from Tissue Engineering and Stem Cell Research, both of which are characterised by the possibility of the unexpected. Thus, the "construct works only if it continues to grow and respond to surrounding tissue after implementation, i.e. to transform in ways that are not so easily predicted". There is a danger, she says, of "excess tissue mutability". With stem cells there is the promise of being transformed into the cell of which ever organ you wish, but as yet no guarantees seem on offer, as the disclaimers in Geron's reports make clear. One Geron disclaimer runs: "as new technologies these products run the risk of unforeseen side effects for which Geron has no product liability."[21] Back in 1998, Swiss Re, the world's second largest re-insurer, talking of the potential for accidents, demands that "we think the unthinkable and quantify the unquantifiable."[22] This need to quantify is how private capital deals with risk. Such abstract quantification is also the basis of carbon credit trading. But in this instance *where is the pre-emption*? Would Swiss Re employ its own specialist health and safety experts to examine every biotech lab? And if so, what criteria would be applied? Do such experts exist? That is, people with highly sophisticated and specialised knowledge, who would – for no doubt less money – work in the health and safety field?

Melinda Cooper does rather force the connection between a financialized world dealing in uncertain futures and the nature of biotechnology, but her take on the overly-capacious notions of Fordism and post-Fordism – despite a seemingly obligatory Deleuzian stamp of approval – is more fruitful. The production of prosthetics, organ transplants and blood transfusion is standardised and regulated (Fordist), she notes; "precise techniques and protocols for freezing, packaging and transportation."[23] Whereas the bioreactor (post-Fordist) delivers, "Not a standardized equivalent but a whole spectrum of variable tissue forms." She goes on to note that George W. Bush was able to avoid the split between the very different wings of his Republican Party because "there is a highly deregulated market in privately funded scientific research and services exist side by side with an often intensively prohibitive stance on the part of the Federal government." One consequence, as the *New York Times* reported, is that "the modern biolab often has fewer Federal safety regulations than a typical blue-collar factory."[24]

David Michaels, cited above, said that OHSA rules governing laboratories were not written with genetic manipulation of viruses and bacteria in mind: "The OSHA standard deals with chemicals. It doesn't deal with infectious diseases."

Regulation in the USA seems to be taking a very long time to catch up with new realities, and in the meantime reports are of a series of deaths and comas among the 232,000 people working in such labs. The bland assurances from the ex-president of the American Biological Safety Association simply ignore the possible consequences of renewed biowarfare research; the shift to wholesale genetic changes in organisms, and the new weight of pharmaceutical capital thrown into vaccines and biological drugs made in vats of living cells.

VI

"Throughout the 1980s a new understanding of risk turned up simultaneously in the language of insurance institutions, capital markets and environmental politics. This was the concept of 'catastrophic' risk."[25]
– Melinda Cooper, Life as Surplus

The final and oldest form of dealing with risk on offer is insurance. It is an after-the-event recompense which has some claim to being pre-event by the size of its premium acting as a deterrent; the no-claims bonus, an incentive. Risk, then, is financialized, just as the system of abstract quantifications of carbon credits and offsets that came out of Kyoto has taken centre stage in climate change policy. As financialized risk management, it's natural enough that the insurance business is an increasingly integrated part of financial capital. Just how integrated was shown by the large scale public rescue of the risk-taking US insurance giant AIG. A company so powerful that its boss, Maurice 'the Czar' Greenberg, had been a major force in changes imposed on East Asia in the 1990s. An industry so powerful that it has fought US health reform at great expense. The image of the business, however, is a democratic one – they'll take your several quid so that if the holiday suitcase disappear *en route* tears will turn to smiles, even if the smiles take a lot longer to arrive than it takes to pay the premium. But they're choosey too, and life and health insurance will become even more so with genetic testing. This is especially significant given the neoliberal push towards the individualisation not just of financial risk-taking but all kinds of insurance. Picking up from Foucault, Melinda Cooper describes the Welfare State as "the first political form to place the acturial strategies of risk socialization at the very core of government… borrowing its juridicial forms from *life insurance*, generalizing its principles of mutual risk exchange to the whole nation." Life insurance, and pensions as a form of insurance against the future, is not only increasingly individualised and privatised, they become more dependent on the increasingly speculative nature of mutual fund investment. Uncertainty is introduced into what is supposed to deal with it.

US Army patrolling the streets of the French Quarter in New Orleans, September 2005, following Hurricane Katrina

Red Cross debit cards issued to Hurricane Katrina evacuees.

When it comes to environmental or technological risk, insurance can at best only be localised, making some reparation for localised damage; reparation which will for sure be contested by corporate lawyers. The reparation can only be financialised, quantifying the unquantifiable – as Swiss Re has it – with acts of God as a contractual get-out. When the response is socialised – for example by'the international community' – there is usually a large gap between what is promised and what appears on the ground after any catastrophe, as well as competition amongst different institutions, agencies and NGOs.

Dick Bryan, in describing the transference of risk to working class households in the richer world, mentions the luxury capital has of hedging its risks; laying-off the bet. The largest sums of money in the insurance business are there *to protect money*. A myriad of insurance contracts and capital market vehicles have been created as forms of 'hedging'. As it turns out, these vehicles can take on a life of their own. In the language, a 'hedge' might equally well be a speculation. Credit Default Swaps (CDS), a hedge by which a bond-holder can 'buy protection' against the issuer of the bond defaulting, ceased to be a form of insurance and could be traded by traders with no financial interest in the bond issuer. In the months since the Deepwater Horizon disaster, CDS on BP have swung up-and-down and up-and-down[26] as speculative investors divine just how much the Gulf of Mexico well explosion and oil 'leak' was going to cost; how it would be quantified. In this dominant narrative of BP's financial prospects and its ups-and-downs, there was no room for the death of twelve workers.

These swaps were also used to structure Collateralized Debt Obligations. Both they and CDS have taken part of the blame for the banking crisis of 2007-9, of which there has been much talk of 'excessive' risk taking. What was supposed to *spread* risk and make a speculative banking system safer had the opposite effect. But in the end it didn't matter, rather, it turned out, there was in effect no risk. Those melodramas of economic 'collapse' were taken at face value, even when other financial instruments were not, and the banks saved by public money. Instead, the result of the 'crisis' is to have increased the momentum of the transference of risk on to public finances. To effect this shift, the predictions of CDS players have themselves determined the rate of interest sovereign debtors must pay. The result, riskier lives for those with the least economic power and a qualitative increase in class stratification.

What stood out in this arcane financial world was that there was a trade "in purchasing insurance against what would in effect be the failure of the modern capitalist system". Calling this the "End-of-the-World trade", Donald Mackenzie describes its fantastic assumptions: "No ordinary economic recession or natural disaster short of an asteroid strike could do it". Neither hurricane or earthquake would trigger such a collapse. All one trader could imagine as a cause was "a revolutionary Marxist government in Washington."[27] And yet, from a normal price of \$2-3,000 per \$10million, the cost of this fantastical hedge had risen 10-fold by November 2007. Mackenzie ascribed this to "a collapse of public fact". There was in effect no way to assess risk, because there was no way to assess what many derivatives were worth. Public facts are almost bound to be rare when 'the public' are no more than individualised *consumers* of information(s), and yet by having information(s) to consume are made complicit in risk-taking decisions.

There is of course such a thing as a catastrophe insurance business. There is even a *catastrophe bond market* which, ironically, gives little weight to predictions. In the face of what is expected to be the worst US hurricane season since 2005, this market is back to normal after the global banking crisis. Reinsurers have transferred \$2.35 billion of catastrophe risk to this market where the drawing up of the bonds are conducted by the usual suspects: Goldman Sachs and Deutsche Bank. Such insurances, and the capital market products evolving from them, have become more significant because of environmental events, and speculation based on their future. But they are both localized and private, and on a very small scale.

What insurance and its derivatives offers are necessarily partial guarantees against the future.

We also now know that, after numerous instances of "*inappropriate mis-selling*", ordinary persons have to be financial experts who can read the smallprint of a contract drawn up by specialists in drawing up contracts, in order not to be shafted.

VII

The realities of this way of dealing with catastrophic risk are brought to life in a witty and predictive satirical riff in James Kelman's *'You Have to Be Careful in the Land of the Free'*. It runs in and out of 30 pages of narrative without flagging[28] and scorches a whole sequence of capitalist pretensions in the process. It has as its premise a near-future spate of airplane scare stories: "A common theme had to do with the insurance problem and how you would get a better deal if you accessed a bookie offering odds on yer plane's survival …Either way you were a winner. If ye survived the flight you lost the bet but if ye perished yer family collected the cash." This became the 'Survive or Perish Option'. Middle America, however, had to learn about bookies, seen as belonging to a dodgy, dangerous world, and this was helped by an outstanding ad which begins with a 'lil ol feisty lady' who must fly across the USA to look after her grandchildren. However: "Recent disturbances have unsettled so called 'securities' and on one singular difficult day the feisty old lady's life savings are gobbled up. The very next day things return to normal and the big boys get their money back with interests. But due to the vagaries of fate the small-time players are left high and dry as usual. The lil ol feisty lady's dough is blown. Her entire life savings just upped and disappeared into thin air. How can she take care of the granweans." A kindly black fellow points her in the direction of a bookies and she finally arrives, bruised and battered at the destination airport to be greeted by the grandchildren. The ironies of the advertisement were dangerous however, and it was attacked by religious, political leaders, "and other spokespersons for the corporate industry who thought it reflected badly on ethical capitalism." But its popularity continued, becoming the Perishing, and finally the Persian bet. It became too popular for corporate capital, so their PR implied that bookies necessarily meant the Mob: "Corporate interests were irritated, in particular those with large holdings in the airline and insurance industry. Nay wonder. This was supposed to be their action and had been legally legitimized by order of the democratic powers for that very purpose. Why in hell were maist of these new profits passing them by…The money men swiftly instructed their legal teams to swiftly instruct the state and federal politicos to move swiftly; procedural rulings and all kinds of legislations were quickly enacted to ensure the bulk of these profits were assigned to their rightful owners, swiftly and absolutely at once and fucking immediately."

In the 18th and 19th centuries the Persian bet may not have seemed so 'sick' or outlandish. Melinda Cooper, citing Viviana A. Zelitzer, describes speculative life insurance of the time:

"In a context where the difference between speculation and risk hedging was far from evident, insurance policies on the lives of the poor and elderly were considered legitimate forms of investment, while popular lotteries were regularly wagered on the chances of the shipwrecked and newly arrived immigrants." [29]

Cooper implies that there is a continuation from this to speculative neoliberalism, but leaves out of her account what Kelman shows: the sheer political and economic weight of 'institutional' finance capital demanding its monopoly rights. The rescue of the gargantuan insurer AIG by the US government, "swiftly and absolutely at once and fucking immediately", tells as to how insurance is an integral part of finance capital, the speed in this case prompted by Goldman Sachs being a major AIG counterpart.

'Sick' and 'outlandish' wagers still exist but 'institutional' finance has got its sticky fingers right in there. A recent example concerns the money that should go as a reward to IRS (US Tax authority) informants who identify tax evaders abroad. The reward has been jumped up to as much as 30% of any money recovered by the IRS. Several millions can be involved, but there may be considerable time lag before the pay out, so that "hedge funds, private equity groups and other big investors are offering an alternative… to buy a percentage of these future payments in exchange for a smaller amount upfront to the whistleblowers."[30] Of course there is the usual yakety-yak, the *risk* that the IRS won't pay out, all so that "this whole new class of assets to be monetized" will involve the *investor* taking as much as *65%* of the pay-out. And feel absolutely entitled.

Chernobyl victims after thyroid cancer surgery.

VIII

It may well be that those who made the progressive promises of the future in 1964 really believed them. The Cuban missile crisis had been and gone, so why not?! From the Club of Rome report in 1973 on the finiteness of natural resources, then Chernobyl and evidence of global warming, however, the notion of catastrophe entered the language. Many futurist promises made now (with the exception of nuclear energy when we are not given anything with which to judge the degree of eradication of risk achieved) are by corporations – usually in the energy sector – promising that they are either clearing up the waste and pollution of a previous era, finding ways around the exhaustion of resources, or, in real 1964-style, promising an end to disease and an increase in longevity of life.

In contrast, people in ever larger parts of the breathing-eating-and-shitting world feel constant pressure to work harder amidst fear of losing that job; see that, for example, the development of biofuels is pushing up basic food prices; and know that despite the many, many promises of genetics, the poorer you are the younger you die. What capitalism does is to create expectations and simultaneously temper them, for, whatever is developed, capitalism must reproduce scarcity. Such a world requires that we are also psychically prepared for the unknown and the unexpected on terms determined by the rich and powerful. Obviously the globalised world is complex. We don't need Anthony Giddens, professionalized NGOs with their institutional interests, or anyone else to tell us that. In our daily lives we are constantly having to assess the odds on the basis of imperfect information.

The promises of technology are immense, our problem is that their development is not neutral but subject to the compulsion of capital to accumulate, and the psychic needs and desires of those who control capital, their 'imaginaries' often marketed in utopian terms. Despite all the talk of the 'precautionary principle', the promoters of those technologies which capital chooses to develop, treats scepticism or opposition as being due either to 'irrational fears', or a 'deficit' of public understanding. Regulation, especially in the area of worker health and safety, does matter, but requires alertness and the need to fight for it over and over. More generally we are forced to be alert, not to the projected fears of men like Rumsfeld, but to the fine print of every contract we cannot avoid being a party which can only be a collective endeavour; alert to which technological developments capital that is being invested goes, and why, and in which not, so that we can pro-actively ask: 'Why? Why is it like this? Who benefits, and whose cost? Exactly the questions risk assessment does *not* ask.

Notes

1 For various instances of this, see 'Sticky Fingers: KPMG and the Accountancy Oilgopoly': *Variant* Issue 36, Winter 2009

2 Melinda Cooper: *Life as Surplus: biotechnology and capitalism in the neoliberal era*: University of Washington, 2008

3 The distinction between external and manufactured risk made by Anthony Giddens in his characteristically banal 'Runaway World', does not hold in a period of climate change and deep sea oil drilling, just as the 'reflexivity' of his modernity is a highly selective reflexivity.

4 For a very thorough and unrhetorical report of cotton farmer suicides, see the ISIS report of 6th January 2010.

5 Thomas Lynes: *Making Poverty*: Zed Books, 2008

6 Angela Mitropoulos: *From Precariousness to Risk Management and Beyond*. ZHDK 2010

7 www.workersliberty.org/story/2008/07/13/marxists-capitalist-crisis-6-dicky-bryant

8 Richard Barbrook: *Imaginary Futures*: Pluto Press, 2008

9 As I write, EU research into nuclear fusion or its possibility is on the edge of being a victim of cuts in publicly funded research.

10 http://www.wombles.org.uk/article2009105704.php http://www.guardian.co.uk/uk/2010/nov/23/police-target-radical-student-activists

11 *Convention on Modern Liberty*: Open Democracy, 2010, p296

12 To be found at academic.com

13 It is in the 'War on Drugs' most of all that one can see how neoliberal capitalism and its unequal free trades have destroyed agricultures in both places where coca is grown, making it the least risky option, and in the most important, (though shifting) entrepots like Jamaica (sugar and banana economies undermined) and Mexico since the NAFTA agreement and now Senegal.

14 Melinda Cooper: *Life as Surplus*, pps 85-90

15 Ibid p11

16 This Act transformed US attitudes to patents and was especially favourable to biotechnology patenting.

17 'The Risk Society: Tradition, Ecological Order and Time-Space Acceleration': wwwidrc.ca/en/ev-64356-201-1-DO_TOPIC.html

18 "Instrumental learning might be summarised as that which occurs as an accumulation of insight, but insight within more or less assumed and fixed (explicit or implicit) ends." Brian Wynne, Robin-Grove-White, et al. 'Bio–to–Nano? Learning the Lessons, Interrogating the Comparison; A Working Paper by the Institute for Environment, Philosophy and Public Policy, Lancaster University and Demos', July 2004

19 'Wising Up: The public and New Technologies': Centre for the Study of Environmental Change, Lancaster University. This group have, in various groupings with Brian Wynne and Robin Grove-White as constants, produced a whole series of critical reports on new technologies risk assessment

20 Ian Urbina, 'Workers on Doomed Rig Voiced Concern About Safety', *New York Times,* July 21st 2010

21 Melinda Cooper: *Life as Surplus*, p144

22 Ibid p81

23 Ibid p123

24 Andrew Pollack, Duff Wilson, 'Safety Rules Can't Keep Up With Biotech Industry', *New York Times*, May 27th 2010

25 Melinda Cooper: *Life as Surplus*, p81

26 BP itself carried no significant insurance. Like other large capitalist corporations it set up its own – what are called 'captive' – insurance, in this case Jupiter Insurance, but with only a small pay-out capability, though with access to reinsurance markets they otherwise could not have. Early on there was some fuss as to whether it could claim on a policy held by Transocean from whom the rig was leased, but the contract was clear;Transocean's insurance was only for damage to the rig. The real action has been in the CDS market for BP, Transocean and Halliburton. Speculative predictions here would have to quantify what will be contested extents of damage, and take into account the political pressure to 'punish' BP while not impinging on the corporate capitalist business of deep sea oil drilling.

27 Donald Mackenzie: 'End-of-the-World-Trade': *London Review of Books* Vol 30 No 9 8th May 2008

28 James Kelman: *You Have to Be Careful in the Land of the Free*. Penguin, 2005, pp 94-128

29 Viviana A. Zelitzer: *Models and Markets*: Transaction Publishers, 1983

30 David Kocieniewski, 'Whistle-Blowers Become Investment Option for Hedge Funds' *New York Times*, May 19th 2010