

Underwriting Security

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Abstract

This essay enframes 'risk' as a biopolitical security technology. It explains how biopolitics of security take life as their referent object of security, how the grid of intelligibility for biopolitics is economic and how, in the second half of the 20th century, life also came to be understood as emergent being. Contingency is constitutive especially of the life of emergent being and so the essay argues that a biopolitics of security which seeks 'to make life live' cannot secure life against contingency but must secure life through governmental technologies of contingency. Risk is one of these technologies. The essay also explains how it has come to pervade the biopolitics of security of the 21st century and how through the way in which risk is traded on the capital markets it has begun to acquire the properties of money. The essay closes by describing how the biopolitics of security differ from traditional prophylactic accounts of security and how these biopolitics of security exceed the liberal political thinking which rationalises and legitimates them.

Key Words

Biopolitics, Security, Contingency, Biology, Emergence, Foucault, Economy, Finance, Risk.

Professor Michael Dillon researches the problematisation of security and war from the perspective of continental philosophy. He is especially interested in what happens to the problematisation of security when security discourses and technologies take life rather than sovereign territoriality as their referent object. Since security is foundational to all understandings of the political as such, he also researches the relation between continental thought and political theory concentrating especially on the philosophy of the event, the politics of encounter and more recently divine violence and political theology. He has written extensively on international political theory, continental philosophy, security, war and cultural research.

Introduction: Enframing Risk Biopolitically

The title of this essay puns David Campbell's pioneering work, *Writing Security* (Campbell, 1998). Campbell's book deftly counteracted the politics of identity and subjectivity that had dominated international relations and security studies throughout the Cold War period, and beyond. Without disputing the continuing salience of the politics of identity in the problematisation and operationalisation of contemporary security practices, and their continuing fixation with the politics and mythology of sovereign subjectivity, *Underwriting Security* seeks an additional shift in our analytical focus, and empirical field of observation, to the biopolitics of security, which take 'life' as their referent object, and especially to the ways in which the biopoliticisation of security installs risk as one of its single most important devices. Underwriting, a term taken from the insurance industry – itself, along with financial securitisation, an extensive and vitally important apparatus of biopolitical securitisation (Baker and Jonathan, 2002; Clark, 1999; Erickson and Doyle, 2003a and b; Ewald, 1991; O'Malley, 2006) - captures the essence of how risk operates as an assemblage of mechanisms for measuring and commodifying exposure to contingency. As the essay explains, since, biopolitically speaking, contingency is constitutive of what it is to be a living thing, the referent object of biopolitics - life - cannot be secured against contingency. Biopolitically, it is instead secured through contingency (Dillon, 2006). Risk is one of the single most important devices by which this biopoliticised securitisation is currently pursued.

The essay therefore first explores a novel problematisation and theorisation of security: the biopolitics of security. Since this biopoliticising of security is also an historical phenomenon, it is a project and not an accomplishment. It is therefore a plural and changing thing, and it changes according to different accounts of what it is to be a 'living thing'. In his justly celebrated works, the Nobel Prize winner Francois Jacob, for example, surveys this changing account of living beings. Exploring how life has been problematised from the beginning of the modern age through the 18th and 19th centuries up to the 20th century Jacob observes that the modern age begins by breaking with the centuries old Aristotelian and Christian accounts of being and beings (Jacob, 1989). He explains how study of the natural world in the Classical period of the 17th and early 18th centuries classified natural phenomena according to visible similarities. He then records how Classical classification gave way to the concept of 'species'. Thereafter, towards the beginning of the 19th century, the focus on species gave way to a

new conceptualisation – that of ‘life’ itself – and with this novel concept a new science emerged; that of ‘biology’ preoccupied with the internal organisational attributes which were then said to distinguish a thing as a ‘living’ thing. By the end of the 20th century biology along with many other sciences of living systems began to understand what it is to be a living thing in terms of what the Santa Fe Institute, and ‘Mac Arthur Genius’ award holder, Stuart Kauffman calls ‘self-organisation’ (Kauffman, 1993, 1995 and 2000). This understanding of life as an ‘emergent being is what especially reinforces the intimate correlation of risk and biopolitics.

Biopolitics nonetheless also changes according to changes in the technologies through which ‘life processes’ are made transparent to knowledge; including those designed, like marketing for example, to regulate the external behaviour as well as those like molecular science designed to intervene into the internal properties of biological entities. As Foucault taught, the genealogy of the biopolitics of security is deeply implicated in the emergence of these and other modern developments, such as the rise of statistics, the specification of laws of probability and so on (Foucault, 1991 and 2007). Biopolitics of security thus constitute a plural and changing nexus of power/knowledge. As Foucault also insists in many places too numerous to cite, knowledge and power are different enterprises. Thus they cannot be conflated. But they are nonetheless also intimately allied. How that allying works cannot be assumed. It has to be tracked and established.

The purpose of this essay is less to track the early history of the biopolitics of security and its complex relation with the emergence and subsequent development of life science, however, than to establish first, how and why, biopolitical technologies of governance constitute a distinctive *dispositif de sécurité*; an assemblage of particular kinds of security technologies and practices operating according to their own particular logic (Foucault, 2007). Glossing Foucault – who says, “...this I believe is the essential principle in the establishment of the art of [biopolitical] government; introduction of economy into political practice.” (Foucault, 1991: 92; and 2007) – I construe the ‘economic’ logic of biopolitics as a broadly transactional logic (Foucault calls it ‘circulation, 2007), the space of biopolitics as a transactional space, and the self-governing freedoms through which biopolitics of security are practiced as transactional freedoms.

Indicating briefly how and why biopolitics of security differ from more traditional rationalistic and geopolitical accounts of security, in as much as they revolve around life and its properties rather than sovereign territoriality, the essay explains why risk is also a natural corollary of the

biopolitics of security. In pursuing that explanation, the essay also explores the development and deployment of the risk technologies of contemporary finance capital as well. For the ‘risk’ traded there, through such financial instruments as futures, derivatives and hedge funds, for example, as well as in the secondary insurance markets, is now not only a pervasive governmental technology, it is also one of the principal currencies through which contemporary biopolitics enacts the transactional economic logic which Foucault first identified for it in his 1970s lectures (2003, 2007, 2008). In the sense very much of a new form of currency not only to enable further transactional and combinatorial exchanges between entities made fungible in terms of the measure of their exposure to contingency but also in terms of the trade in risk itself, contemporary risk begins to display some of the key properties of money.

Biopolitical Life: Transaction, Contingency, Risk

Thus, in the process of accounting for the biopoliticisation of security and enframing risk as one of its technologies, the essay offers a somewhat novel historicisation and theorisation of risk as well as of security. Indeed the two necessarily go together biopolitically. For all problematisations of security revolve around a referent object and all security technologies revolve around changing understandings of the properties of that referent object. Life as a biological phenomenon is the referent object of biopolitical security technologies. Biopolitical security technologies therefore reflect and seek to regulate according to the prevailing properties of the transactional existence of what Foucault in his early lectures on biopolitics called *être biologique* (Foucault, 2007). Among these are principally now said to be the transactional features of ‘circulation’, ‘connectivity’ and ‘complexity’. Circulation, because that is how biological life propagates and reproduces itself: “Life, at its core, depends upon autocatalysis, that is reproduction.” (Kaufman, 2000: 15). Connectivity, or radical relationality, because biological life is understood to be the creatively propagating sum of its combinatorial transactions (“Molecules are combinatorial objects,” “An autonomous agent is a relational concept.” Kaufman, 2000: 44, and 53). And, the more things circulate, of course, the more they become transactionally connected. Thirdly, complexity: because biological being is not a complicated entity whose change can be plotted and projected in simple linear fashion (Jacob, 1989; Kaufman, 1993, 1995, 2000). From the beginning of the 19th century onwards, albeit in significantly changing ways, the life of living things has been regularly said to be complex, subject to

non-linear transformation and change (Jacob, 1989; Kaufmann, 1993; Dillon, 2005 and 2006; Dillon and Lobo-Guerrero, 2008).

What characterises and combines all these generic properties of species existence is, however, radical contingency. The point applies to Machiavelli in one way as it does to the molecular revolution in another: “It is central to Schrodinger’s image, and more so to contemporary molecular biology, that the sequence of (DNA nucleotide) bases can be arbitrary.” (Kaufman, 2000: 26). In *Security, Territory Population* Foucault also explored how early biopolitics revolved around the aleatory properties of population (2007). Just as populations are aleatory, however, so contingency is said now to be generically characteristic of life as biological existence. The reason is as follows. No divine providence or historical teleology explains the account of human existence as biological existence. It has no necessary cause external to it, and follows no pre-determined course. It underwrites itself and appears as the continually emergent sum total of its transactional encounters with the contingent conjunctures which are said to characterise the life of living things. The space of that transaction is thus said by widely influential authors like Stuart Kaufman, for example, who call it the biosphere, to be “incalculable, non algorithmic, and outside our capacity to predict (Kaufman, 2000: X). “Emergence and persistent creativity in the universe,” he says with blunt ontological directness, “is real.” (Kaufman, 2000: X). “[N]o one,” he continues, “designed and built the biosphere. The biosphere got itself constructed by the emergence and persistent coevolution of autonomous agents.” (Kaufman, 2000: 3). Note also how the transactional economic space of biological being is additionally conceived, here, as a space of freedom and that that space of freedom does not simply consist in rational calculative exchanges. It is said to consist in complex combinatorial transactions that propagate diversity and organisational complexity.

The centrality which contingency has thus acquired in the life of human existence understood biologically, does not deny the observations of biological laws or the systematicity observed in biological organisation and function. Kaufman is a biological scientist. He, along with many others, therefore understands these laws differently; as the science of self-organisation and emergence which arise in a transactional space of emergence itself un-determined by any transcendental necessity. Nor is the contingent, as it emerges here, understood as mere chance. In this latest twist to the ancient debate over contingency and necessity (Vuillemin, 1996) the modern account of the contingent is not simply elevated over necessity. Contingency, itself, becomes a novel domain of calculability through which

the taming of chance is integrally involved in a new game with time; since it is time itself, freed from transcendental goals and laws, which is the root cause of the contingent in the modern age.

Thus it may appear that in taming chance you may tame time. Moreover, tame time and you may tame the future. Tame the future and you may, finally, secure a being - human being - whose very existence is temporal. However much it may characterise the modern, commanding time by securing the future is a long-standing human desire. At the beginning of the 20th century it has, however, been given a quite distinctive gloss by life scientists like Kaufman, and by other sciences such as those of the managerial and complexity sciences which now share cognate understandings of the emergent character of living things. Its impact upon information and communication technologies as well as on military strategic discourse is also now well documented (Dillon and Reid, 2001; Dillon, 2004). Kaufman, for example, maintains that we cannot, “prestate the configuration space of a biosphere.” (Kaufman, 2000: x). Complex adaption within it produces unpredictable, in principle infinite, self-engendering and self-organising diversification. It is this idea, specifically, which inspires the Unisys epigraph on security that heads this paper, and the Unisys web site brilliantly illustrates the spread of such thinking into the management sciences and the new sciences of security. Securing the future no longer simply entails the taming of chance through the avalanche of printed numbers and technologies enabled by the rise of statistics (Hacking, 1975; Bougen, 2003). In addition to securing through simulation, prediction, pre-meditation, prevention and pre-emption (Goede, 2007; Aradau and Munster, 2007; Grusin, 2004), and now said to be governed by the law of emergence, life in the so-called developed world is increasingly now subject to an additional and quite distinctive moral and behavioural economy of existence.

Here in the biopoliticisation of the securing of the life of emergent entities, virtuality is increasingly more important than actuality: the law of emergence similarly more important even than the laws of simulation and projection. Biopolitically speaking, at the beginning of the 21st century, biological being as emergent being is enjoined to secure itself through securing its future by experimental participation in the engendering and unleashing of its own emergent potential. While allied to other ways of taming chance, risk technologies are also now deeply implicated in this novel biopoliticised securing of the life of emergent entities. “What if?” the Unisys web site, for example, goes on to say, “What if security wasn’t a cage? What if instead of keeping things out it let amazing things in? What if it made you bolder, more ambitious, and enabled you to accomplish more

than you ever thought possible? What if security unleashed your full potential?” “Relish Change,” it proclaims with typical commercial hyperbole, “Get more control by controlling less.” (*Unisys* <http://www.securityunleashed.com/>).

Contingency thereby becomes **the** epistemic object for the biopolitics of security in the 21st century in as much as it characterises the understanding of human life to whose promotion and development biopolitics is committed as an emergent and creative entity. Extrapolating beyond Foucault’s conclusions in *The Order of Things* (1989) it is the Contingent, together with its so-called laws of emergence, rather than Man, which draws the life sciences together today. In that respect contingency operates as a broad field of formation for the biopolitical security practices of emergent beings; which beings are increasingly also recognised to be both post as well as extra human. Thus contemporary biopolitics also displays post and extra human concerns with the equally emergent life said to be displayed, for example, by artificial and cybernetic, as well as animal and viral, beings (Doyle, 1997, 2004; Hayles, 1999; and Bingham,).

This point also teaches us something absolutely fundamental about how such biopolitics of security secure; indeed about the kind of security which is pursued biopolitically today. Contingency cannot be excluded from life since the very understanding of life which operates here, biopolitically, is that contingency is itself constitutive of what it means to be a living thing. If life understood as biological being is to be secured, such life cannot therefore be **secured from contingency**. Wrapping-up life, to preserve it from the vicissitudes of its contingent being, will assuredly kill it off. Biopolitically, life has to be **secured through contingency** (Dillon, 2006). If biopolitical security technologies are to succeed in their promotion of life as biological being, if biopolitics is to ensure that ‘life lives’ in terms of acting out its infinite potential, biopoliticising security technologies like risk, taking note especially of the characteristic contingency of biological being, will not because they simply cannot secure life prophylactically. If life is therefore to be secured biopolitically its securitising will in large part be conducted through the regulation of life’s exposure to, and its productive and profitable exploitation of, contingent happenings and effects; including not only those occurring in nature, but also those which follow from the independent actions and interventions of biological being itself.

Biopoliticised security cannot therefore function through the mere provision of safety and protection, for human being, or freedom from harm. Biopolitically, security is a game in which human life as emergent biological life must be promoted and secured through the regulation and fructification

of its defining transactional properties and capabilities. This observation is not surprising. Indeed it helps explain many current security preoccupations with networks, development, local and global flows of every description, and the whole tenor of contemporary concern with the novel dangers which arise out of our close-coupled global civilisation and the proclamation of radical uncertainty which now characterises security policies of almost every description.

It therefore follows that biopolitical security practices must deliberately somehow allow for the transformation and change - indeed cultivate the very capacity for adaptive emergence - which living contingently is now said to be required of all biological things. Biopolitically speaking, in other words, survival is increasingly said to be subject to the 'laws' of emergence. To survive is to change. Not any change, not simple quantitative change, but qualitative change in the very nature of the living thing itself. This accounts for how transformation has entered into contemporary security discourses as a key term of art. In the context of life understood biopolitically as biological being, for an autonomous body which survives through adapting to the many contingently driven changes which duration through time as transactional and emergent space requires of it, transformation simply is a security strategy. This explains why transformation has become such a concern to network based or network enhanced military strategic discourse, for example, as it has to incorporate behaviour and contemporary management science (Farrell and Bird, 2008). These and many other domains of contemporary governance – global liberal governance and development included (Duffield, 2001) – share in this current biopolitical zeitgeist (Dillon and Reid, 2001; Dillon, 2002). Or, as Kaufman observes in an unintentionally revealing observation: “If you are lucky enough to be in the survivable regime, you can survive by being adaptable.” (Kaufman, 2000: 240). What he gives away is the prior fact that it is the construal of ‘the regime’ as ‘the survivable regime’ which dictates that adaptation is required of autonomous agents if they are to survive. Life here is then construed as that set of strategies capable of adaptively enduring through an economic space of combinatorial transaction. Once more, however, Kaufman reveals something unintentionally about this space. He also calls it a “configuration space”. It shapes the autonomy and the agency of the very agents said to be operating autonomously within it. The biosphere, or econosphere as he later calls it, is not simply a biological economy. It is a biological economy operating very much also as a moral economy; except that its ethic masquerades as a life rather than a political science.

Biopolitically speaking, contingency is therefore no simple uncertainty. It names a particular kind of modern ontology – or understanding of the real as the Kaufman quote states - in which contingency is construed as the condition of emergent possibility not simply for any kind of existence, or indeed any kind of ‘life’, but for a life that is also ‘free’. From this biopolitical perspective, then, living things are not simply defined as living things in as much as they transact (many conflate this transaction with information exchange, Kaufman does not) it is free to transact. Biopolitically, emancipation is the freedom of a transactional life dealing in the very combinatorial contingencies of its being in order to improve the conditions of its emergent existence and prosper transactionally as a living entity. Kaufman puts it with typical, and revealingly biopolitical, force: “Agency was spawned.” (Kaufman, 2000: 49) Such transactional freedom might be said to derive from the natural attributes and emergent condition of biological beings; that is what it is to be a living thing in the transactional space of the biosphere which knows no law other than that of emergence which emergent biological entities themselves creatively enact. For Kaufman, “An autonomous agent must be an autocatalytic system able to reproduce and able to perform one or more thermodynamic work cycles.” (Kaufman, 200: 49) Not also the correlation here biologically speaking of Kaufman’s understanding of what is more accurately termed a biopolitical, rather than a biological, autonomy with work cycle – reinforcing Foucault’s observation that economy provides the basic grid of intelligibility for the biopoliticisation of politics.

Where human beings are concerned, however, such combinatorial transactional freedom is, of course, operationalised through power/knowledge relations: legislated and regulated through the socialisation, education, training, discipline and norms which increasingly take the form of the multiplication of liberal rights to transact. Here in this emergent account of biopolitical life, however, it is important to observe that freedom is no longer simply a matter of the will; the biopolitical agent is no simple rational calculative subject whose passions have been transferred into interests (Hirschman, 1997) . This is a biopoliticised agent whose reason and interests have been translated into autocatalysis. As a biological requirement of emergent existence, freedom becomes a biopolitical obligation if one is in fact to be enfranchised as a living thing at all. Such a biopolitical franchise now admits non-human and non-organic entities into the category of the living (Doyle, 1997, 2004; Hayles, 1999) just as it regularly demotes or excludes some human categories from within the realm of life as well (Dillon, 2008).

Among the self-governing biopolitical technologies of transactional freedom are those concerned to take the measure of contingency and trade on future transactional outcomes through specific kinds of statistical calculation and probability analysis. In other words, risk calculations. Pat O'Malley recently recorded how such transactional 'prudence' was first forcefully allied with political morality in the liberal utilitarianism of the 19th century. "In this way," O'Malley observes, "uncertainty [first] came to represent to liberals not simply the 'incalculable', but a specific set of techniques centred upon foresight: particularly contract, prudence and enterprise.For such liberals... uncertainty made them free." (O'Malley, 2007: 7). Little surprise then that in conflating biology and economy Kaufman inevitably arrives at a biological expression of utility as well: "Let happiness or the economist's utility, become 'rate of reproduction,' hence fitness. Let increased happiness become 'increased rate of reproduction,' hence increased fitness." (Kaufman, 2000: 78).

In thus enframing risk biopolitically in relation especially to the contemporary understanding of life as emergent being, the emphasis thus far has been on the 'bio' of biopolitical. It is precisely that preoccupation which leads Kaufman, in *Investigations*, at least, to reinvent liberal utility, economy and political economy after their event discovering them alive and well and governing the biosphere. What I therefore want to emphasise instead is the political of biopolitical. For biopolitical enframing of risk is a political and not a sociological, anthropological, managerial, or (except in the widest transactional sense) economic, much less biological enframing of risk. This difference makes a difference. From the wider political analytic adopted here politics is concerned with the generative principles of formation, institutions and practices – *pace* Foucault, both macro and micro – which instantiate a regime of power/knowledge relations, an allied social order, a system of distributive justice and a political anthropology (an account of what it is, in politically salient terms, to be a human being). It is a commonplace of political thought that the 'social' of sociology, the 'anthropos' of anthropology and the 'subject' of economics do not precede politically instantiated orders of power relations (Pocock, 2003; and, Lefort, 1988). Neither in fact does Kaufman's emergent adaptive life. These co-evolve, one might say, with politics in and through regimes of governmental power/knowledge.

How does this impact on the analytic of risk offered here? In the following way: if economics, management and strategic science understand risk to be a universal phenomenon, something that is discovered by improved forms of knowledge and calculation (Bernstein, 1998), sociology

and anthropology understand risk to be a function of the demands or properties of some social or anthropological formation (Douglas, 1992; Douglas and Wildavsky, 1982; Beck, 1992). Here it is neither. Rather it is a governmental phenomenon. Precisely because it has become so biopolitically dominated, governance these days increasingly takes place through strategisations of the contingent including greater refinement of risk awareness, risk-based analysis and risk-trading. Risk thus operationalises the biopolitics of emergent life through the commodification of contingency, now widely assumed to be constitutive of what it is to be a living, emergent, transactional being. As a device which directly operationalises our contemporary biopolitics of security, risk is therefore central to the governmental politics of formation which now dominate our world.

If political modernity thus arises for Foucault, as it does for many others, as a generic crisis in the locus of political rationality and the efficacy of technologies of governance brought-on by the dissolution of the soteriological project of the Christian Church and its allied political institutions of Empire and Kingship (Kantorowicz, 1997; and, Koselleck, 1998), modernisation, too, is a project and not an accomplishment. While modern political rationalities draw their licence, their very loci of power/knowledge, from a wide variety of reference points other than that provided by the Christian God, the search for autonomous regions of being from which political rationalities may be derived did not stop with 'population', 'civil society', or 'economy'. The 'real' under regimes of modernisation takes many forms. As an autonomous region of being the referent object of life, too, changes. The early modern history and subsequent development of risk technologies lies embedded in the political, social, cultural and economic turbulence of these historical changes, as well, and in the emergence especially of the new political rationalities and technologies of biopolitical governance revolving around the contingency of life understood emergently.

Risk: The Contingent is no Accident

Thus, Pascal may have first invented probability in order to help him and his friends win at gaming (Bernstein, 1998; and, Hacking, 1975). But those first compiling statistics or experimenting with new financial devices of annuities to raise monies not only for Republics as well as Kings – the United Provinces under de Witt, for example, financing their war against France through selling annuities – progressively saw the value of new mathematical means of translating contingency into risk, and of turning

numbers into foreign and domestic policy as well as profit (Van der Heijden, 2006; Hendriks, 1851; Poitras, 2000; and, Clark, 1999). Similarly, when English forces under the Duke of Marlborough began the destruction of the French bid for European and trans-Atlantic hegemony in the 18th century they were successful not least because the English war effort was significantly better financed through the public credit made available through English commercial invention and success. Whereas such credit helped underwrite the success of the British bid for a global commercial empire, French failures in these respects and others helped fatally undermined the French ancient regime as such (Pocock, 2003: 571; Rahe, 2006: 87-89). Policy and profit currently now also ally through credit in the form of risk in the global financial capital markets today - consider the current sub-prime lending crisis - as much as they do in the new sciences of complex emergent being which has pervaded the political, commercial and military discourse of the last twenty years.

The history of the emergence and operationalisation of risk has therefore always been situated at the intersection of capital and rule. Rule seeks to secure governability. Capital seeks to profit. Risk combines the two in posing and securing subjects of self-rule not simply in conditions of uncertainty but in terms of measuring their exposure to contingency financially. The pursuit of profit may assist the securing of governance. The securing of governance may assist the pursuit of profit. If orders of capital accumulation and orders of governance have a history, and if those histories are closely entwined, the same applies also to contingency and risk as well. Contingency has a history (Vuillemin, 1996). Specifically, today's 'risk' is an historical, governmental, phenomenon of intensively capitalised regimes of biopolitical security (O'Malley, 2006).

As Robert Deuchars has also recently observed:

...modern conceptions of risk calculation can in part be traced to an ontological shift that began with attempts made by the scholars and activists in Renaissance Europe to question the moral and secular power of the established Church. Niccolò Machiavelli, most notably opened up a new field of thought and practice in which hitherto uncommon questions related to human control over nature, free will, providence, reason and progress were used to confront the orthodox thinking of the Church.”
(Deuchars, 2000: 30)

The space of problematisation which these developments opened-up for political rationalities and governmental technologies alike was therefore also related, among other things, to that of the changing problematisation of

uncertainty or chance as well as to the life of the species which has progressively characterised regimes of modernisation (Deuchars, 2000; Dillon, 2006). Precisely because population is characterised by the aleatory (Foucault, 2007), however, it is this biopolitical focus on the referent empirical object of species being in the form of population which began the process of moving the Contingent centre stage as a field of formation for modern biopoliticising governmental technologies from the late 18th on into the 20th century. In so doing population lent itself to governmental regulation, among other things, through technologies of risk. All this, Foucault documents, was intimately connected as well with the wider circuits of circulation and production of every kind which were associated with urbanisation, capitalism, the market and the evolution of economic theory (Foucault, 2003, 2007, and 2008). Towards the end of the 20th century, however, especially with the advent of the understanding of living things in terms of emergence, contingency seems to have graduated from being one biopolitical condition of biopolitical government amongst others to ontological preeminence among contemporary biopolitical security technologies.

Risk is however also regularly conflated these days with the occasion of danger or the threat of loss (Beck, 1992). This account of risk helps fuel the hyperbolicisation of security and fear which seems to characterise our contemporary politics. What is regularly omitted in such accounts of risk is nonetheless the equally important point that risk is simultaneously also associated with the occasion for gain or profit. Our entire global civilisation revolves around the nexus of profit and loss which informs risk and which sophisticated and inventive forms of risk analysis and risk packaging, in their turn, now govern. Much critical social and security analysis nonetheless continues to emphasise the threat aspect – real, manufactured or purely imagined - of risk.

Strictly speaking, however, risk is neither the occasion of danger nor the occasion for profit. Risk is simply the commodification of exposure to contingency calculated through the generalised measure of probability. Risk commodifies contingency by first making it calculable and fungible. Events and eventualities are probabilised, in effect a generalised measure of account, correlated with their projected outcomes and given a score. People take a chance on that score. In simple terms they bet.

Calling this a bet does not diminish what is involved.² Quite the contrary it more honestly expresses what precisely is involved. Our military

2

and political leaders are perfectly aware of the ‘betting’ character of their decision making. The architect of the contemporary military strategic doctrine of network centric warfare, Rear Admiral Arthur Cebrowski, was rare among other things because he was among the very few to admit as much. “Placing a Few Big Bets—These are big jumps. These are the things that will change a military service, change the Department of Defense and maybe even change the world. Some might argue that this is not what the DoD does, but they are wrong because the organization has already done this in the past. Global Positioning System satellites are a prime example. Its advent changed the military, changed the department and changed civil society. Another is the American military’s ability, led by the U.S. Army, to ‘own the night.’” (Cebrowski, 2006).

What once helped substantially govern our forms of life in the developed world was the way in which risk was transacted through its socialisation and regulation according, for example, to law, to co-operative institutions, social norms, or religious proscription. Progressively, however, and throughout all walks of life, such devices have increasingly become subaltern to that other single most powerful device for transacting risk, namely the free market. The market has become massively more important in the second half of the twentieth century, of course, than any other time in history and across more of the globe than heretofore. It has also become so in ways which have transformed the very nature of capital, money and, indeed, of risk itself. The changes are very generally recognised to be not simply quantitative but also qualitative.

We should therefore follow Foucault in asking about the governmental effect of changes in the mode of capital accumulation and circulation ‘between men and things’ which occurred during the second half of the 20th century addressing in particular the changing order of ‘securitisation’ furnished by the astonishingly dynamic and transformative ordering of capital itself; in which, “technologically amplified circulations of capital, information and forms of technology are now pushing aside the older economies of industrial production.” (LiPuma and Lee, 2005, 404). In other words we have to do what Foucault taught us to do and ask: What is the governmental effect of the transformation of capital through which we have been living for the past thirty years and how are we newly secured through those governmental changes? What we find when we ask this question is that risk is no longer one device for offsetting certain specific exposures to contingency like accident, injury or death through the long-standing historical device of insurance for example. Risk provides a generative principle of formation for the many orders of governance through

which we are now increasingly secured in the 21st century. Risk, in short, is the predominant rule governing the conduct of conduct in the now deeply and pervasively capitalised biopolitical security practices of the developed world.

Underwriting Security

Risk today is therefore comprised of a political rationality and an assemblage of governmental technologies. The political rationality of risk proclaims an ontology of radical contingency. The technologies of risk seek to provide means of navigating that contingency avoiding loss and seeking gain. The conduct of conduct in developed societies, from individual behaviour about savings mortgages, pensions and health care through to government policy in all areas, is increasingly governed by such risk analysis.

Those who proclaim risk may presuppose a radical ontology of contingency but what risk traders do is make risk. It is they who do the labour of calculating and commodifying contingency for the purpose of enacting a market in risk trading. Through such means they calculate the probabilities of future events buying and selling options and policies in relations to those projected events. Signing up for these, risk takers run the risk of making a profit or incurring a loss. Such underwriting security does not differentiate inside from outside in a discursively organised play of friend/enemy or self/other. It does not immediately therefore inscribe a social or political identity. Populations and risk pools do not constitute a people in the usual political and cultural uses of that expression. Its domain of production is not that of identity but contingency. It renews the circulation of exposure to contingency, and its allied topography of uncertainty, through the master trope of differential calculation. It does so today in what two analysts call, “emerging circulatory forms [which] are fracturing the history of capital.” (LiPuma and Lee, 2004, 423) Here a general theory of relativity in relation to exposure to contingency appears to be emerging in the form of the abstraction and universalisation of risk associated with the financial changes of the last thirty years or so. Underwriting security is precisely this assumption of risk (LiPuma and Lee, 2004; Bryan, Dick and Rafferty, Michael, 2006; Poitras, 2000).

Underwriting does not therefore inscribe or ventriloquate a political subject of security through a complex discursive process of cultural and political inscription. Calculatively commodifying contingency, underwriting security assumes a risk and makes a pledge – the contractual act of

underwriting as such - a pledge to expose oneself to and accept certain options or certain futural conditions and outcomes. In this it does of course both subject and subjectify, but the material cultural processes and outcomes are different from either those of the geopolitics or the writing of security.

Parties in exposure to contingency are thereby contracted. But this is not the social contract of high political theory through which subjects and citizens are said to be secured in the enjoyment of their natural rights or traditional freedoms. This freedom is neither social nor political. The freedom is transactional, specifically the freedom to trade in one's exposure to contingency regulating oneself according to how well or how badly one is able to capitalise that exposure. The contract is one of mutual but not equal liability. Underwriting therefore enacts a relation. But the relationality is comprised of a specific liability; a liability entered into for advantage although, of course, it may not turn out to afford one. It thereby also enacts a distributive political economy of who gets what, where, when and how in relation to exposure to contingency – including its allied distribution of material benefits as well as fears and dangers.

Whatever else might be said of the ontology of a contingent universe, 'risk' does not therefore exist 'out there', independent as it were of the computational and discursive practices which constitute specific risk as the risks that they are. Risk is a carefully crafted artefact. Risks are thus created, circulated, proliferated and capitalised upon in a whole variety of burgeoning ways. Underwriting secures the continuing power of exposure to contingency as the regulatory device through self-governing is effected through risk technologies. This then is not exactly the risk society explored by Ulrich Beck; an account of risk which was almost wholly preoccupied with cataloguing the growth of man made dangers. This is the truth telling of a governmental technology which enacts a world of self-regulating subjects bound in continuous calculation and commodification of their variable exposure to contingency.

Risk Rules

The capitalisation associated with risk referred to here is classically that which now obtains in the world financial markets. It translates exposure to contingency into a measure, value or asset which can be transacted through free markets both to offset exposure to contingency as well as to capitalise on it to make a profit. Insurance is one traditional device by means of which such securitisation via capitalisation takes place. Insurance too is being transformed by the changes to which I have just referred. The

‘derivative’ is a new financial device for doing more or less the same thing. Its origins are perhaps not as ancient as those of insurance but in a sense its principle remains the same as that of insurance. It too deals in exposure to contingency calculated and commodified through risk and its introduction has transformed our world.

Insurance and derivatives alike therefore seek ways to offset exposure to contingency through the operation of a generalised system of real time accounting of exposure to contingency. In the process they have transformed the very character of global exchange and circulation approximating it ever closer not only to comprehensive but also to real time transaction of risk. They are doing this not simply in terms of the transformation of calculation and information. They are doing it in terms of what they measure.

What therefore matters is not simply that everything is being calculated and that everything is thereby becoming information as many traditional accounts of global technologising from Heidegger to the present day maintain (Heidegger, 1977). What matters is what is being measured and what the information gained is information about.

It seems banal to remind ourselves that just as there are different ways of classifying and measuring things, and that the history of calculation itself is also involved in these changes, there are also different things which are subject to classification and measurement (Elden, 2006; and, Bowker and Starr, 2000). But the banality needs to be recalled. In a governmental order instituted by risk, the regulative ideal is that everything be measured in relation to everything else in terms of its exposure to contingency. What securitising according to risk does is therefore measure any aspect of anything in terms of such exposure. In that way any thing or any combination of things, real and virtual, may become measurable in terms of risk. As LiPuma and Lee argue in their persuasive account of the globalisation and abstraction of risk in today’s financial markets: “Capitalist social relations are no longer mediated only by labour but by risk, because these new financial instruments assume that particular forms of risk, no matter how existentially incommensurable... can be aggregated as an abstract form, susceptible to and determinable by mathematical calculation, combined within a single derivative, and then distributed to speculators.”(LiPuma and Lee, 2004: 126) That is how the order of things has become the order of risk, and how risk become the rule for the conduct of conduct in a new governmental order of securitising.

While the implications of these developments, including also their impact on what we understand the very nature of money as such to be, remains an object of academic dispute in academic journals, the global

impact of derivatives and hedging on the order of capital accumulation as a whole is not in doubt. More than any other technological device it is derivatives which are abstracting and generalising risk (LiPuma and Lee, 2004 and Bryan and Rafferty, 2006).

The expansion of the derivatives market since the 1970s has transformed global economics and the nature of capital itself. What is especially interesting and important from the perspective of this paper is, however, that derivatives have in the process also transformed the very range and register of risk as well. Risk is no longer merely one way of dealing with exposure to contingency by calculating and commodifying specific contingencies as for example in the insurance business; third party cover, accident, illness, injury, death, robbery and so on. Risk is fast becoming a general unit of social as well as of financial and managerial account (Power, 1997, 2004, 2005 and 2007).

The Abstraction of Risk as Universal Unit of Account

If risk technologies in their modern form were first enabled by Pascal's discovery of probability in the 17th century, and by what Ian Hacking called the avalanche of statistics which characterised the 18th and 19th centuries (Hacking, 1995; and Daston, 1988), what LiPuma and Lee describe as their current 'universalisation' was enabled by the Black-Scholes formula which was invented in 1973. Its rapid utilisation was in turn enabled by the information revolution which followed digitalisation (Zhang, 1995; Lesley and Wyatt, 1992; and Pryke and Allen, 2000).³ The universalisation of risk nonetheless also owed its advent to the ending of the post-war economic settlement, the abandoning of the Bretton Woods agreement and the globalisation of finance, trade and manufacture which followed from those historical economic developments. Taken together the revolution in commercial and governmental power/knowledge of the last thirty years has transformed risk from one management device and form of calculations among others into what has many of the features of a universal system of account and a new order of governance. Risk, here, governs by continuously actualising the virtual as capital thereby seeking to translate circulation into pure liquidity (Mackenzie, 2007).

To paraphrase Simmel and substitute risk for money in ways that accord with the conflation of risk and money which also appears to have

³ The trading in financial futures started in 1972 and increasingly traded as major currencies soon after from mid-1973 onwards. Thereafter derivatives - which come in two forms: future-based and options-based - quickly moved centre stage.

been taking place, we might say that ‘there is no more striking symbol of the completely dynamic character of the world than that of risk; and that, when risk stands still it is no longer risk.’ And, that risk is nothing but ‘the vehicle for a movement in which everything else that is not in motion is completely extinguished’ (Simmel, 1991, pp. 510-511). Such movement is the movement of time itself, the medium through which we are exposed to contingency; the medium which risk takes as its very domain of calculability.

In the realm of modern accounts of contingency as risk, time is therefore no longer the realm of fate, *Fortuna*, luck or accident. Time’s uncertainty is no longer wrapped in a circulatory cosmological mystery. Nor is the mystery of circulation simply governed by the secularised grace of Adam Smith’s ‘hidden hand’. Time in circulation is rendered as the contingent. Risk translates the uncertainty of this time into an embedded and embodied domain of social experience and an everyday order of governance. To adapt an aphorism from James Joyce’s *Ulysses*, it is risk ‘which makes the round go a world’.

Modern risk transactions now seem to operate as a currency of exchange by means of which the value of things is measured and any one thing can be traded for any other thing irrespective of what LipPuma and Lee call their “manifold existential, differences” (LipPuma and Lee, 2007). As sociologists of money from Simmel onwards have long observed also, however, money is not just an infrastructural device enabling rational economic decision makers to produce, buy and sell. It is an extraordinary performative social phenomenon enacting and institutionalising all manner of values and social relations, not least for example those of trust and fidelity, as it both separates and joins people and indeed generations across space and time. In that sense, too, operating as a unit of exchange and a store of value as well as instantiating specific forms of social relations and individual subjectivity, risk also appears to perform some of the classic functions which it is said that money performs.

Recall then that risk is a calculation of exposure to contingency. Such information is stored in the way that money also stores information, in the form of price; the price of the policy, schedule, derivative or future (Muniesa, 2007). As an apparently new iteration of money, risk therefore now fuels significant transformations of the global economy, the very nature of capital and of capital accumulation. A measurement of contingency, a store of information concerning exposure to contingency as well as a store of value, a medium of exchange, and a means of payment, modern risk is not simply, however, a social phenomenon or a social institution. Operationally,

it is a governmental phenomenon, a complex governmental technology. Its self-regulatory register, range and power has vastly increased in extent and in intensity during the course of the last half century impacting on everyday forms of life from people's education, housing, jobs and pensions in ways that affect their everyday behaviour and very understanding of the real. In that sense it is arguable that the contingent now rivals the social and the economic as one of those autonomous domains of liberal existence.

Paradoxical as it may sound, therefore, risk satisfies the desire for security by upping the ante and thereby massively increasing exposure to contingency which it further translates into new risks. It does this by engendering an exponential increase in the ways in which everything is open to being addressed, valued and measured in terms of everything else using exposure to contingency as the general measure or universal unit of account and exchange.

Conclusion

There is, then, no one securitising game in the west. Securitising comes in the form of many games. These games are heterogeneous and the security game-board is multi-dimensional rather than uni-dimensional. This allows moves to be made in and across several heterogeneous dimensions at once. Such worlds of securitising coincide, conflict and meld. Their relation is a strategic and not a dialectical one and their complex interarticulation very much helps define and circumscribe our current political condition. This world of risk is therefore not a mere supplement to the traditional world of security, it is a different world. But recall also that it is perfectly possible for different worlds not only to co-exist but also to transact as well as conflict with one another.

The widespread popular and professional misconception of risk nonetheless distorts our political and governmental understanding of risk as a form of rule. It misconceives it from the beginning and blinds enquiry into the nature and operation of risk. The mistake is a fundamental and costly one. For risk has become one of the single most important security technologies of the age and to mistake its character is to mistake the way in which we have come to be ruled through risk and its allied governmental technologies. The political stakes involved in the misconception of risk could therefore not be higher. To misconceive risk is to misconceive the ontopolitics, the apparatuses of power/knowledge and techno-scientific devices by means of which western societies are now governmentally secured; from the macro calculations of geopolitical analysis – no matter

how scandalously they misconduct their risk assessments (Iraq) – to the biopolitical micro management of individuals and populations.

Rule through risk thus secures individuals and populations locally and globally by locating them in a general economy of the contingent in which ‘the event’ rather than ‘the will’ reigns supreme. What that means is that the very understanding of the real which underpins risk-based approaches to security, as well as the technologies which are used and the knowledge upon which these technologies rely, differs significantly from that presupposed by traditional security discourses.

‘Will’, for example, is what the traditional preformed calculating subjects of security are supposed to possess. ‘Events’ are what contingently thrown human beings are exposed to; not least the very unaccountable event of time itself. Calculating subjects look for causes. Risk compiles statistics which calculate probability. Preformed subjects of traditional security discourses are preoccupied in Hobbesian fashion with preventing bad things happening to them, especially bad things dreamed up by other equally calculating subjects. Risk-analysis pools individuals, for example, into risk pools and, through capitalising security technologies seek to indemnify themselves against events whatever their cause and to profit from speculating in their contingent eventuality. Such security practices do not prevent things happening to people or corporations, they provide opportunity for gain or they compensate people for any loss they may incur allowing them to continue to actively circulate in the general combinatorial and transactional economy of contingency formed by risk.

The pre-formed subjects of traditional security discourses are said to be individual or collective, thus posing a so-called level of analysis problem for security analysts. The ontology of traditional security discourses is anthropocentric, in that its political anthropology of the innate cupidity of possessive individualism presupposes the existence of pre-formed rational calculative subjects of will, in the way that risk discourse initially does not. Its initial condition is an evental contingency amenable to calculation rather than a causal nature populated by calculating subjects. Reflecting the early scientific biases of the modern age, the epistemological posture of traditional security discourses is disposed towards proclaiming universal causal laws. Reflecting the probability revolution which has swept through western science throughout the course of the 20th century, risk discourses are conversely also now probabilistic as well (Daston et al, 1987). The subject of risk is member of a risk-pooled cohort.

Risk ontology is therefore contingently evental rather than purely anthropocentric. Its world is governed less by sovereign wills and more by

contingent occurrences; albeit contingent occurrences are governed even more explicitly now by the polysemous play of the sign in the form especially, for example, of price and price fixing. Subjects nonetheless of survival, the subject of risk-based securities is one in which the very real of survival is understood differently as well. Surviving becomes a different game, one dependent upon the capacity to pass out of phase with oneself and become something that one was once not; a successfully traded risk-based commodity, for example, in which subjectivity is emergent and adaptive articulating itself through a differential calculus of exposure to contingency as the mode of its own self-governance. This is a perspectival world of relative valuation more rigorous and more remorseless than progressive post-modernist once proclaimed the emancipatory promise of the ontology of the event to be. Risk is nothing if not relative, perspectival and transformational.

Whereas time, finally, for the traditional security subject is historical in which history is typically also said to have a motor, time for the risk-based subject of security is evental. And the event knows no laws other than that of contingent emergence. There is no motor to the event only conjunctures. Patterns can be detected through distribution and probability analysis for example. But the patterns are mobile and mutable because they are also directly affected by reflexive behaviour itself. Power/knowledge here is more experimental than architectonic. Risk does not so much seek to ground things and build great institutionalised architectures of power/knowledge on those foundations. In recognition of its more complex and non-linear understanding of the nature of the real, risk espouses the complex productive play of contingency more than building, adaptation more than essence, transformation more than stasis.

Political philosophy is classically concerned with who should rule, how they should rule and what binds subjects into an order of rule. It is preoccupied, that is to say, with questions of political authority, political legitimacy and political participation among people said to share a common bond; the bond of submitting to a sovereign, agreeing to live by a set of shared political rules or a constitution. Risk by-passes the traditional concerns of political philosophy. It nonetheless binds and does so with an imperial impulse: "...the bond between economic subjects is, if you like, non-local. The analysis of the market proves that the multiplication of profits will ultimately be brought about through the spontaneous synthesis of egoisms over the whole surface of the globe. There is no localization, no territoriality, no particular grouping in the total space of the market." (Foucault, 2008: 293-294)

The brute fact is that we are ruled one way or another before we make sense of it politically and rule is a form of historical 'accident'. It never proceeds first from first principles. It also always defies the grasp of first principles because it is messy, heterogeneous, contingent and complexly dynamic; features radically inimical to first principles. Rule through risk therefore also demonstrates how far removed we are from the ambitions of political philosophers concerned with the essence of politics. To misconceive risk is therefore also to misconceive the task of political philosophy which now confronts our age as well. Indeed to misconceive risk is to overlook the extent to which liberal political philosophy in particular has been comprehensively overtaken by its own liberal governmental technologies. The philosophical stakes in relation to the popular and academic misconception of risk could therefore also not be higher today, for risk newly challenges the labour of political thought required to contest the rule of risk and the biopolitics of security which it enacts.

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