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Insuring Biofinance: Alcohol, Risk and the Limits of Life

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1 Introduction

Life insurance and alcohol share a long and complex history; in Britain in the early nineteenth century friendly societies met in, and were strongly associated with public houses, for instance. This may not seem all that remarkable given the significant role that spaces of sociality have played in the history of finance – take for example the origins of Lloyds global marine insurance market in Edward Lloyd's coffee house in London in the late 1600s or the part played by the Tontines coffee house in the establishment of the New York stock exchange. But for an industry whose purpose is to protect and safeguard life, the public house might now seem an odd choice of meeting place, because alcohol was redefined as a harmful rather than healthy substance over the course of the nineteenth century.

Alcohol has ever since constituted a significant problem for life insurance. A problem, however, that has moved in and out of focus as knowledge and perceptions of rates of alcohol consumption and problem drinking have changed, and as the industry has developed different strategies for securing life in the face of alcohol. The history of the insurantial capitalisation of alcohol-life - the extraction of value in the form of insurance premiums from the complex interrelations between human life, alcohol and drink(ing), and the translation of such "biovalue" into capital to be thrown into circulation in financial markets (cf. Lobo-Guerrero, 2014) - is one marked by discontinuities, breaks and ruptures. In the first half of the nineteenth century the temperance movement encouraged the establishment of teetotal friendly societies like the Rechabites, and abstainers' insurance companies like the UK Temperance and General Provident Institution, the eighth largest British life office by 1890 (Alborn, 2009: 27). Associations like these did more than just provide insurance for abstainers; their

mortality data seemed to show that abstainers lived longer than moderate drinkers, promoting the virtues of sobriety. At the same time, many mainstream offices adopted the practice of rating up or even turning down applicants who worked in the drink trade (Kneale and French, 2013). The practice of offering lower premiums or larger bonuses for abstainers waned with the fortunes of the temperance movement itself in the middle of the twentieth century. Concern with the drinking habits of applicants never entirely disappeared, but it wasn't until the 1980s that alcohol was to once more figure so prominently in life insurance practice1. A renewed attention that, in the UK at least, owes a great deal to the transformation of drink into a key object of government health policy. The UK government's championing of the alcohol unit as a cornerstone of its contemporary risk minimisation drinking strategy has played an important role in making alcohol insurantially productive once again, this is despite the fact that the medical scientific basis for alcohol units is highly uncertain.

Alcohol has, however, proved to be remarkably resilient to endeavours at pacification by insurers and the medical profession alike. As a result, insurers have had to rely on a range of proxies in an attempt to stabilise and frame alcohol as a risk factor, with varying degrees of success and sophistication. These include the use of occupation as a means by which to identify applicants who might be more likely to drink to excess, with workers in the drink trade still experiencing high levels of alcohol-related mortality (Romeri et al., 2007), the self-reporting of drinking levels as part of the application process, the use of medical examiners' reports, and the exclusion of claims for alcohol-related illnesses.

Taking as a point of departure the elusive nature of drink – the ways in which alcohol overflows endeavours to frame its relation, both physiologically and psychologically, to the body and subject (Çalişkan and Callon, 2010, Callon, 2007) – the paper examines the contemporary insurantial framing of alcohol, one that has been fabricated from historical precursors. Elsewhere we have argued that a distinctive feature of the present has been the emergence of new modalities of biofinancial power in the context of a deepening privatisation of social welfare and the concomitant financialisation of everyday life in the UK. Or, to put it another way new intensities in the ways in which the circuits of financial capital and of biological life interfere, are co-constituted and mutually governed (French and Kneale, 2009). In the context of the long-term insurance market, this has found expression in a search for new forms of morbidity, mortality and vitality capitalisation running the gamut from the proliferation of lifestyle insurance products (French and Kneale, 2012), through to the securitisation of life on global financial markets (Lobo-Guerrero, 2013). The case of alcohol helps to shed critical light on some of the contestations and uncertainties of present efforts to realise biovalue through the insurantial capitalisation of life and death, not least because the securing of a vital ontology (Lobo-Guerrero, 2014) and epistemology of life in respect to alcohol has, as we shall discuss, proved so taxing. As such, drink provides a critical lens on the specificities and uncertainties of the economisation of uncertainty (O'Malley and Roberts, 2014); of the efforts to manufacture and discriminate between "good" and "bad" insurantial subjects.

In interrogating the relationship between alcohol and life assurance, the paper focuses on two key moments when drink and drinking have featured prominently in the insurance imaginary. We begin by examining the role that Anstie's Limit played in the insurantial framing of alcohol as risk during the late nineteenth and early twentieth century. By developing one of the first systematic, bio-medical metrics for quantifying alcohol consumption and distinguishing between moderate and immoderate drinking, the work of Anstie proved of significant value for making the alcohollife relation amenable to capitalisation. In part three, attention turns to contemporary UK insurantial strategies to secure life in the face of drink, strategies that have been assembled as part of a wider economisation of lifestyle. The paper explores the ways in which the alcohol unit has provided a new ontological basis, one prefigured in important respects by Anstie's Limit, for the present capitalisation of alcohol-life. However the history and determinants of the unit's use by insurers remains unclear, as do its exact origins, which poses important questions about the relationship between medical science and underwriting. Part four considers the implications of this history of biofinancialisation for an economic sociology of insurance. We argue that not only does the case of alcohol illustrate the need for greater attention to be paid to the broader governmental conditions and spatial and temporal contingencies of the insurantial capitalisation of life, as O'Malley and Roberts (2014) contend, but it also reveals the bricolage qualities of life insurance. In part five the paper concludes by briefly considering the politics of the insurantial

alcohol-life relation and in particular processes of subjectification. Alcohol constantly threatens to overflow its framing as unit, and in response alcohol is being performed and enacted in new ways by the industry, the politics of which require urgent consideration.

2 Anstie's Limit

During the nineteenth and early twentieth centuries alcohol was the focus of a great deal of attention in the industry. While questions about drinking appeared on life assurance forms in Britain, the US, Finland and elsewhere from the 1850s onwards, the British physician Francis Edmund Anstie (1833–1874) seems to have been the first doctor to offer life assurance a useful measure of moderate alcohol consumption (Murphy, 2010, Kneale and French, 2015, Jauho, 2015). Anstie was a well-established, reformist physician, and his ideas would prove to be influential. Conducting a series of careful experiments to explore the relationship between consumption and consequences, he concluded that the body could only cope with a certain amount of alcohol, and that drinking more than this caused drunkenness as well as physiological harm. By 1870 he had fixed this amount at one to one-and-a-half ounces of pure alcohol, which was sufficient for a daily dose for a healthy man; desk-bound or infirm men, or women and children could drink less. Anstie died young, but his work was championed by influential figures like Edmund Alexander Parkes and Benjamin Ward Richardson in the UK, by the Committee of Fifty in the US - which cited Anstie in its definitive 1905 statement on alcohol - with the limit also circulating in newspaper discussions of moderation across the British Empire.

Quantifying risky drinking appealed to the life assurance industry, too. As business grew in the second half of the nineteenth century offices began to employ local medical practitioners to examine applicants for policies. Handbooks, often written by the company's medical officer, trained doctors how to assess these lives, and almost all of the books we have seen encouraged them to examine the applicant's drinking habits. At first, this evidence was indirect and qualitative, but as the century progressed medical referees were asked to record exact quantities and types of drinks. This would have allowed offices to work out if Anstie's Limit had been reached, but the first definite evidence for its use in life assurance comes from the US (in the 1890s), and South Africa (in 1908). In the early twentieth century, the US life assurance industry employed Anstie's Limit to review its own exposure to alcohol-related risk. The Medico-Actuarial Investigation of 1908-14, headed by Arthur Hunter of New York Life, reviewed two million policies, and concluded that offices that did not rate up applicants who drank more than Anstie's Limit every day were taking just as big a risk as their policyholders were. However, the mortality rates were higher than expected in both categories, and in fact were worse for those who said they were drinking below the limit. One commentator noted that while firms had thought that "only when Anstie's amount was exceeded did they see a risk to health," after the investigation even moderate drinking seemed "decidedly unsafe"; the Limit "belongs to the dark ages of medical science" (Thompson, 1915: 48, 51). The collapse of the American Temperance Life Assurance Association of New York in 1915 may have confirmed this sense of a hidden iceberg of dangerous drinking, with the New York Times headline claiming that "Moderate Drinkers Caused Insolvency" only five years after the firm began admitting them. By 1922 Hunter and his Medical Officer, Oscar Rodgers, were describing the Limit as "far too liberal" – alcohol was dangerous in any quantity (1922: 167).

These doubts reflected different methodologies and epistemologies of alcohol research. Actuarial investigations like Hunter's were simply the latest in a long line of studies that sought to use firms' experience to assess the impact of alcohol on the body. This approach, which prefigured the population–level quantitative analyses of contemporary public health studies of alcohol, was rather different from the experimental physiology of Anstie's research. It engaged with different materials – rows of figures instead of alcohol, blood, and the waste products of the body – and produced different conclusions. These were not different ideas of alcohol, in fact, but different practices within which the substance was "enacted into being" in particular ways (Law and Singleton, 2005: 334).

By the end of the First World War these enactments took on new forms as doubts about the value of life assurance records as indicators of alcohol-related mortality emerged in a British government review (Central Control Board (Liquor Traffic) (1918)), and Raymond Pearl's statistical critique *Alcohol and Longevity* (1926). Medical definitions of problem drinking also changed, emphasising psychiatric problems of "addiction" rather than what we would now call "alcohol harms" (i.e. physiological damage). At the same time, Prohibition made excessive drinking difficult in North America and elsewhere in the 1920s. Between the wars medicine seems to have turned away from questions of quantity, and – apart from a general nervousness about how to appraise risks – life assurance's interest in drink waned.

3 The alcohol unit and the "free user" limit

Since the 1980s the problem of drink has again come to feature with increasing prominence in the life assurance imaginary. The global reinsurer Munich Re (2005: 12), in the preamble to a detailed report on testing for alcohol consumption, has warned that the "costs arising from alcohol abuse are enormous, greater even than those of tobacco or illegal drugs. And not only is there damage to the liver to consider, the costs of road traffic accidents or early occupational disability are huge." While alcohol abuse is cited as a problem in many insurance markets, the economic and social costs are considered to be particularly high in the UK. According to the Head of Underwriting at AIG Life, alcohol now constitutes

"one of the three biggest lifestyle factors responsible for death and disease within the UK. The impact of alcohol misuse is growing – a recent study showed that deaths from liver disease attributable to alcohol have risen 40% in the last 12 years. Indeed, the UK is the only country in Western Europe (except Finland) where liver disease has increased in the last 30 years – it is now the third most common cause of premature death in the UK." (Downes, 2015)

It is not only the part alcohol plays in increasing the chances of premature death and disease that constitutes a problem for insurers. Consumption of alcohol is also one of the conditions that has long been associated with high levels of non-disclosure by applicants (Goodliffe, 2007, 2015a). However, since Pearl's investigation of alcohol consumption and mortality (1922), attempts to quantify the medical and insurantial risk of drinking have been bedevilled by an apparently "J" shaped curve in graphs of alcohol harms against alcohol consumed, where abstinence and excessive alcohol consumption are detrimental and drinking in moderation is believed to have a positive impact on health – for heart disease, at least. The liberal tensions that emerge from the complexities of the effects of ethanol on both the mind and body are compounded in an era of neoliberalism, by tensions between a "presumptive right to pleasure and a duty [of the self] to govern risks," which underpins the ascendance of harm minimisation strategies to drinking (O'Malley and Valverde, 2004: 39). A "felicity calculus" (O'Malley and Valverde, 2004) complicated by the fact that the process of generating and extracting value now occurs throughout the whole of the life course. In the "social factory," sociality has itself become the object of capitalisation (Gill and Pratt, 2008).

Faced with such uncertainty, how has insurance sought to calibrate risk? What are the insurantial strategies used to pacify alcohol and thus render the relation between bodies, subjects, populations and drink amenable to calculation? In order to answer this question we will focus our attention on the life assurance industry in the UK and North America. Alcohol plays a significant role in the framing of contracts and of agencies, and in encounters between insurers and the insured (Çalışkan and Callon, 2010) at a number of different stages. Just as in the case of many other forms of insurance, the contractual relation (O'Malley and Roberts, 2014) is a cornerstone of the capitalisation of alcohol-life. In order to avoid and minimise liability for drink-related losses, the design of life insurance contracts has evolved in such a way as to distinguish between acceptable and unacceptable use and consumption, between alcohol risks that are deemed manageable and controllable, on the one hand, and uninsurable uncertainty, on the other hand (cf. Lobo-Guerrero, 2014).

In a series of interventions the insurance lawyer Jonathan Goodliffe (2007, 2015a, 2015b) has identified three legal mechanisms by which insurers seek to discriminate between "good" and "bad" risks in relation to alcohol consumption. First, the decision whether to offer or withhold cover; the drawing of a distinction at the point of application between the insurable and uninsurable citizen. Second, determination of the specific terms of contract and price that an insurer is willing to provide cover. In turn, this will involve a decision about whether the alcohol-related risks are such that an applicant should be "rated up" or considered a "sub-preferred" risk, and whether specific declarations of health and sobriety are required. Third, the common use of clauses in contracts that exclude liability for alcohol-related losses and therefore invalidate particular types of claim. As Goodliffe makes apparent, such exclusions can be

"... either specific to alcohol problems or to problems which are often (although not invariably) alcohol related. So life assurance may exclude cover for suicide either entirely or during the initial years of the policy. Critical illness cover may exclude treatment for self-harm, or mental illness or for alcohol dependence. It may also more widely exclude treatment for any condition arising directly or indirectly from 'inappropriate' alcohol consumption." (Goodliffe, 2007: 5)

The power of such exclusions is amplified by the *uberrimae fides* (utmost good faith) legal principle on which insurance operates.

One of the principal means by which UK life offices seek to draw a boundary between moderate and immoderate alcohol consumption is through the use of the *alcohol unit*. As Jayne et al (2012: 830) make clear, in the UK "units emerged as the accepted standard method for measuring individual consumption and assessing problematic drinking." The UK government defines the unit as 8g of pure ethanol (for comparison, the equivalent US "standard drink" contains the equivalent of 14g of pure ethanol). The unit operates within a framework of surveillance medicine and a corresponding "localization of illness outside the corporeal space of the body" (Jayne et al., 2012: 832). It helps constitute insurantial socio-technologies such as health questionnaires that are completed by applicants, and General Practitioner Reports (GPRs). When completing a proposal or application form for life, critical illness or private health insurance cover applicants are now asked a range of lifestyle questions which commonly includes questions about the number of units of alcohol consumed per week (Goodliffe, 2007, 2015a).

However, the precise historical circumstances of the adoption of alcohol units as the primary tool for self-reporting alcohol consumption and drinking behaviour for insurance purposes are opaque. The earliest reference within the industry that we can find is in a review of underwriting practice in the UK undertaken by Leigh in 1990. In discussing strategies for managing the risk of heavy drinking, Leigh (1990: 463) suggests that a "precautionary rating of 50% extra mortality is reasonable for a proposer who has a daily consumption of more than 4 double-gins, 4 pints of beer or a bottle of wine (i.e. 8 or more units a day) and yet has no physical or mental signs of alcoholism." This is suggestive of an industry still in the process of transiting from "standard drinks" to the alcoholic unit. By the middle of the 1990s, however, underwriting discourse and practice were explicitly couched in the bio-medical language of units, and framed in the context of harm minimisation health policy. This likely reflects the influence of the "Sensible Drinking" report (Inter-Departmental Working Group, 1995). Analysing the role that alcohol consumption could play in the development of a much more highly segmented approach to the pricing and underwriting of life risks, Martin Werth writing in 1995, stressed that drink

"be used as a negative risk factor [in preferred lives underwriting], where consumption exceeds, say, 40 units per week ... At this level it would reinforce the Government's message of 21 units per week for men and 14 units per week for women" (Werth, 1995: 14)

A survey of industry attitudes and underwriting approaches to smoking, alcohol intake and obesity a year later reveals that by the mid-1990s not only had units become the commonly accepted method of measuring alcohol consumption, but also the emergence of a consensus that the distinction between healthy and risky drinking be drawn at roughly 40-42 units per week. Of the sixty-three UK and Irish life offices that responded to Ormondroyd's (1996) survey, some two-thirds would consider the self-reported consumption of 5-6 units of alcohol per day, or 35-42 units per week, equivalent to twice the government's maximum for men, as the threshold for a person to be considered a "heavy drinker," and thus requiring further tests and/ or a corresponding increase in premiums. And there is evidence to suggest that what Jo Storey of the UK's Financial Ombudsman Service (FOS) recently described as a "free user" limit of 42 units of alcohol per week remains a common threshold in the industry (Goodliffe, 2015a: 15, see also Downes, 2015).

Despite its pivotal role in the manufacture of alcohol-life risk, the medical or insurantial basis for the adoption of a 40-42 unit limit in the early 1990s remains unclear. It is possible that the "free user" limit has its origins in the findings of a 1994 study of the relationship between alcohol consumption and the mortality of 12,321 male doctors, comparing observed and expected mortality much as an actuary might (Doll et al., 1994). The study divided drinkers into eight categories depending on their weekly alcohol consumption in units: "none, undefined, 1-7, 8-14, 15-21, 22-28, 29-42, or >=43." The recommended weekly limit for men (21) marked the halfway point of reported consumption and 42 represented the upper limit of the penultimate category. Although we can find no explicit references to this research, underwriters would no doubt have found its conclusions interesting, as doctors drinking 29-42 units and more than 42 units a week had about 20% and about 40% higher mortality than those who drank 28 units or less a week, respectively. This paper is still cited within public health, though more recent studies are likely to follow the NHS definition of "harmful drinking" as the regular weekly consumption of 50 units (for men) or 35 units (for women) (NHS Choices, no date).2 At the very least the example of the "free user" limit draws attention to the uncertainties and discontinuities of the practice of devising life insurance (Mcfall, 2014).

4 Producing biofinance

The brief account offered here of the employment of Anstie's Limit by the Anglophone life insurance industry at the turn of the twentieth century, and of the contemporary mobilisation of the alcohol unit by UK life offices, illustrates the productive role that alcohol has played at particular times and in particular places in the insurantial economisation of biosocial uncertainty. Both Anstie's Limit and the alcohol unit provide an ontological and epistemological basis for the demarcation and categorisation of moderate/ safe and heavy/ risky drinking respectively (Kneale and French, 2015). Both act as forms of metrology, allowing for the ordering of the "complexity of the effects of alcohol on our brains and bodies" (Jayne et al., 2012: 843) and its translation into a quantitative and thus calculable measure; be that number of units or volume of pure alcohol consumed. In the case of the modern unit this also allows, as Jayne et al (2012) suggest, for subjects to be located along a numbered continuum.

But, what can analysis of this history of biofinancialisation tell us about the economic sociology of insurance? There are three points we want to make. First, is that the insurance- alcohol relation highlights the importance of attending, as O'Malley and Roberts (2014) stress, to the broader governmental conditions that enable the insurantial economisation of uncertainty, not least the role played by the state. As well as providing further evidence of the importance of the legal principal of uberrimae fides, the alcohol unit is a good example of the multiple ways in which the state provides the conditions for particular modalities of insurance, in this instance the capitalisation of lifestyle. The legitimacy and intelligibility of unit-based risk assessment and market devising can only be understood in the context of the UK government's championing of the alcohol unit as a cornerstone of its risk-minimisation alcohol strategy since the mid-1980s (O'Malley and Valverde, 2004), and of the related dominance of a new framework of surveillance medicine and its associated spatialities, which provide the unit's regime of truth (Jayne et al., 2012). For as O'Malley and Roberts assert, it is "only when uncertainties have been stabilised and bracketed can they be colonised by risk techniques" (2014: 265). This is not of course to suggest that insurance and actuarialism are passively constituted within broader governmental environs, quite the reverse, but that the power relations (material, ontological, epistemological) between life insurance, the state, and medicine is as much an empirical as a theoretical question. There is some evidence to suggest that the quantification of consumption by insurance medical examiners in line with Anstie's Limit may have influenced wider medical practice, in the same way that the development of the medical examination has been argued to be the result of insurance demands (Jureidini and White, 2000). Similarly the use of the Body Mass Index as a medical and public health technology has its origins in the work during the 1940s of Louis Dublin, chief actuary at the Metropolitan Life insurance company in New York to translate the Quetelet Index into a risk device (French and Kneale, 2009). Nonetheless, in the case of the early history of the unit the role of insurance appears to have been more a response to developments in social health. Insurance is thus better conceptualised as a heterogeneous assemblage of human and non-human things, that is contingent in time and space, and of which actuarialism and actuaries are but one, albeit important, element.

Second, taking seriously the specificities of the insurantial economisation of risk (O'Malley and Roberts, 2014) demands that we recognise the spatial and temporal contingencies of life capitalisation. One of the most notable aspects of the story of the employment of Anstie's Limit by the life insurance industry is precisely that despite the clear parallels with the drinking limits measured by the contemporary unit, the practice of taking into account measures of the volume of pure alcohol consumed by applicants dropped out of industry use by the 1930s. As discussed earlier, a number of reasons might help explain the disappearance of Anstie's Limit, not least the falling per capita consumption of alcohol. As a result of such changes, the productivity of alcohol for enabling the insurantial capitalisation of life diminished during the middle part of the twentieth century. Significantly, the waning of alcohol during this period appears to have more to do with a destabilisation of the broader governmental conditions on which the uncertainties of the alcohol-life relation were anchored, than of any problematisation of the underpinning vital ontology of life. In the case of the UK, as far as we can discover, it wasn't until the 1980s that the governmental conditions were to be re-established such that alcohol, just like the Body Mass Index, could once again become insurantially productive. Thus, while it is tempting to present insurance history as one of the remorseless and

irreversible colonisation of lifeworlds by actuarial logic, the case of alcohol reminds us that this history is discontinuous and fragmented, and illustrates the fragilities of specific modalities of life insurance and of the promise of securing a liberal way of life (cf. Lobo-Guerrero, 2013).

Third, our exploration of the life insurance/ alcohol relation also adds weight to a growing body of critical work that has cautioned against reductive conceptualisations of insurance; that is, as the straightforward application of actuarial risk calculation. McFall (2014) has provides a rich and detailed account of the critical role that agents, agent handbooks and assorted promotional devices have played in constituting industrial life insurance, and O'Malley and Roberts have made an analogous argument in relation to technologies of everyday foresight and the history of fire insurance, for example (see also Van Hoyweghen, 2013). The present insurantial capitalisation of alcohol-life should similarly be understood more as a process of bricolage, of improvisation and the creative re-use of existing resources (MacKenzie and Pablo Pardo-Guerra, 2014), than the application of statistically driven actuarial techniques. The early discussions of the veracity of the unit and of the setting of a "free user" limit by the likes of Leigh (1990) and Werth (1995) are certainly suggestive of an ad hoc and improvised approach to alcohol, and it is telling that such debates were dominated by underwriters rather than actuaries. Endeavours by actuaries to estimate and model alcohol-related mortality have made use of aggregate data for death rates from alcohol-related disorders such as cancers of the oesophagus and larynx, chronic liver disease and cirrhosis, alcohol psychosis and dependence syndrome (see for example McCartney et al. 2011, cited in Institute & Faculty of Actuaries, 2014). Just as in the case of the "free user" limit, these accounts have been notably silent on the question of the relation between such disorders and unit thresholds. A silence that might be explained by the fact that the scientific basis for the use of the unit as a measure of the effects of alcohol consumption on the body is highly uncertain, as Jayne et al. (2012) have made clear. And more fundamental questions have been raised in the industry about the efficacy of self-reported measures of consumption

"It is virtually impossible to assess accurately how much alcohol someone really drinks. Questionnaires tend to be useless in this respect as the information people give on their alcohol intake is unreliable." Notwithstanding the fact that underwriting individual applicants and the aggregate modelling of insured populations are clearly not one and the same thing, this suggests that just as at the turn of the twentieth century alcohol is performed and ordered in heterogenous ways in the contemporary life insurance industry – ways that aren't necessarily easily commensurable.

5 Conclusion: Subject to insurance

"... alcoholics take out insurance at a time when their life is falling apart. They have lost their job. They have remortgaged their house. They are being divorced. Their mental and physical health is breaking down. The insurance policy may be the only family asset of any significance. The alcoholic may have been contemplating suicide when he [sic] took it out." (Goodliffe, 2015a: 15)

Having examined ways in which devices for the calculation of moderate drinking have enabled the capitalisation of life, we want to conclude by briefly reflecting on some of the attendant politics. One of the principal insights of Foucault's work on subjectification has been that power can be creative and productive, as well as repressive. Indeed, according to Foucault, repression or prevention is something that modern power does only in extremis (May, 2014). Alcohol is not only economically productive in the sense of enabling the manufacture and extraction of biovalue - value captured from the vital properties of living processes (Rose, 2007) - by way of the insurance of lives, but also productive in the inculcation of a biofinancial subject; a political subject responsibilised to secure its own financial and biosocial being (French and Kneale, 2012). The prospect, for example, of having to pay a higher premium is likely to encourage the insured to "avoid alcohol problems" as Goodliffe (2007: 3) notes, and for applicants the very anticipation of difficulties in securing life insurance can act as a catalyst for an intervention to work on the self

"If there is an alcohol problem, the doctor may say to his patient: 'perhaps you should do something about your drinking before applying for insurance'. Such 'brief interventions' are an established and often successful way of encouraging people to stop or reduce their drinking." (Goodliffe, 2007: 12)

In extremis, insurance claims from "alcoholics" are of course frequently rejected. For as one insurer succinctly put it "... it is always fair to apply exclusions to someone who wilfully harms themselves" (Goodliffe, 2015a: 2). And the stakes are particularly high for heavy drinkers and their

dependents, for the financialisation of biovalue is in a very real sense their last hope for security. In rejecting such claims, the lives of those who are unable or unwilling to refashion their biosocial selves are devalued, excluded from the liberal way of life, and deemed uninsurable; that is, unworthy of securing. However, it is precisely this insurantial paradox of security (Lobo-Guerrero, 2014), the excess of life that cannot be rendered insurable risk, which makes alcohol so productive economically and politically. The elusiveness of drink, its uncertainness - the difficulties of stabilising the alcohol-body and in turn the alcohol-lifestyle relation - is at once both a recurring problem for life insurance, as well as the very foundation on which the insurance of lives continues to operate. As Lobo-Guerrero (2014: 316) reminds us, it is the "excess of the life to be protected that makes insurance possible".

At the same time, the uncertainties of alcohol and more generally, of present insurantial endeavours to economise lifestyle, also opens up space for politics. On the one hand, the contemporary intensification of biofinancialisation and its associated strategies for capitalising life produce new forms of subjectification. On the other hand, the deepening marketization of biosocial life is leading to a proliferation of the social, of "matters of concern" (Callon, 2007). In the case of drinking and insurance, alcohol overflows its insurantial framing as unit, and this is manifest in at least two ways. First, the contestation of rejected claims through agencies such as the Financial Ombudsman Service. In such contested cases not only are the limitations of the alcohol unit's effectiveness at capturing the drinking behaviour of lives assured revealed, not least the limits of the synchronic logic of time (cf. Lobo-Guerrero, 2013) underpinning lifestyle insurance, but also the limits of the principal of uberrimae fides in enabling the insurantial economisation of lifestyle (see Goodliffe, 2015a). Second, in an effort to access the "body memory" of alcohol (Munich Re, 2005), there has been a growing deployment of alternative apparatus for the (re)framing of alcohol-life by the industry. To supplement and address the limitations of long-established alcohol framing devices, such as the self-completed application form and the General Practioner Report (GPR), life offices especially in the US have made increasing use of biomarker testing to identify alcohol abuse and calibrate drinking behaviour, pathology, morbidity and disease. A growing battery of alcohol biomarker tests are now regularly utilised by the industry. While there isn't scope here to provide a detailed genealogy it is suffice to say that the growing scale and scope of biomarker testing (in the US close to 1.5 million life insurance applicants have been tested specifically for alcohol biomarkers, for example (Dolan et al., 2011) is founded on a medical ontology that is quite distinct from the surveillance medicine of the alcohol unit. Alcohol is being performed and enacted in new ways by the industry, not only in biomarker testing but also in relation to biomonitoring devices (see Greenfield et al., 2014) and the digitisation of health (McFall, this issue); insurantial practices that pose new political questions and challenges, and thus require urgent consideration.

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Endnotes

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1It is notable that the period when interest in alcohol in the life insurance industry waned coincides, in the UK at least, with the high point of socialised insurance. However, a full explanation for the diminished importance of alcohol during the middle of the twentieth century requires further research.

2Alternatively the 42 unit figure may simply represent a doubling of the weekly figure for men, much as binge drinking is defined as double the daily limit, but there does not seem to be any good reason for this doubling in terms of weekly limits.

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