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The Politics of Externalities: Neo-liberalism, Rising Powers and Property Rights

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ABSTRACT

As its advocates and its critics argue, economic liberalism is predicated on a separation of the 'economic' and the 'social' dimensions of capitalism, which mirrors disciplinary splits between economics and sociology, and regulatory splits between markets and 'externalities'. Synthesising themes addressed over the course of the ESRC Rising Powers symposia, the paper explores rival ways in which the phenomenon of 'externalities' has been conceived. Firstly, externalities can be treated as rare events, 'market failures', which make calculation impossible, and typically require some form of state intervention. Secondly, externalities can be treated as problems of under-defined property rights, or inadequate privatisation. This is identified as a neoliberal position. Thirdly, there are emerging methodological approaches and institutional models (especially in the urban economies of the rising powers), which demonstrate ambiguous mediations between public and private goods, and between different spheres of value, without making them fully commensurable. Discovering how this occurs in practice requires further empirical research, as outlined in the conclusion.

BIOGRAPHY

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One of the key capacities of modern government is to render the invisible visible. Various strategies and techniques are deployed in achieving this, including the panoptical design of disciplinary institutions, the statistical representation of populations, the mapping of space, evaluation and auditing of 'performance', rationalist urban planning, the codification and quantification of social values and 'attitudes', the comparison and ranking of different actors and groups and so on. Foucauldian scholars have shown how many of these techniques have been hallmarks of liberal government in Europe since the late 18th century, highlighting the power of experts, social scientists, statisticians and professions in producing, quantifying and stabilising 'society' and 'economy', in order to 'govern at a distance' (Foucault, 2007; Rose & Miller, 2008). The neo-colonial role of technical experts, especially economists, in the development and liberalisation of non-Western economies has also been explored in this way (Valdes, 1995; Eyal, et al, 1998; Mitchell, 2002, 2005; Babb, 2001).

Markets have often been treated as an exemplar of modern transparency, exactitude and quantification in this regard, thanks to the price mechanism, and therefore in little need of rationalisation or government. As the Chicago School economist, George Stigler, put it, the price system of the market "lays the cards face up on the table" (Stigler 1975: 36). By contrast, public goods, public spaces and public actors suffer from a lack of explicitness regarding the apportioning of costs, benefits and accountability; the 'tragedy of the commons' derives from a failure to produce clear, visible relationships between cost and benefit, action and effect (Hardin, 1968). Markets, by this optimistic account, are utilitarian calculative devices, which convert consumer preferences into prices, uncertainty into risk, need into demand, and so on. They help to formalise the informal. Many of the advocates and the critics of market liberalism have tended to view markets as exceptional features of modern society, inasmuch as they are autonomous and 'disembedded' domains of individual freedom (Polanyi, 1957).

This liberal account of markets as innately transparent, honest and dis-embedded encounters a number of difficulties, as explored by the ESRC Rising Powers network, specifically in the urban contexts of Beijing, Delhi and London. Firstly, there is the problem of 'market failure', in which the boundary between the market and the 'non-market' (or the 'social' or 'public') collapses for various reasons. The notion of 'externalities', first introduced in the welfare economics of Arthur Pigou, refers to types of costs and benefits which cannot be accounted for in dyadic, market exchanges, mediated by price, but spill over to affect third parties who are 'external' to the transaction (Pigou, 1912). Where externalities are of a significant scale, they may affect large populations or spaces, becoming referred to by economists as problems of 'public goods'. This neo-classical concept has since been adopted and adapted by cultural economists and sociologists (Callon, 1998; Boutang, 2011).

Secondly, there are sub-fields of the social sciences which challenge the notion that markets are autonomous, dis-embedded domains, separate from state or society. Since the 1940s, the Chicago School Law and Economics tradition has applied neo-classical economic analysis to criticise and evaluate markets and public institutions together, in an integrated fashion. Within this tradition, Ronald Coase famously criticised the very notion of 'externalities', which he re-defined as a problem of under-defined property rights (Coase, 1960). Law therefore becomes a tool with which to construct and formalise a competitive market economy – a hallmark of neo-liberalism (Foucault, 2008). This 'economic imperialism' has been countered since the 1980s, by the 'new' economic sociology, which has represented markets as constituted by norms, networks and politics, rather than 'external' to them (Granovetter, 1985; Fligstein, 2001).

Thirdly, markets themselves increasingly generate problems of opacity, which has led regulators to seek new means of understanding the relationship between the 'economic' and the 'social', market and externality, drawing on ecological metaphors and systems analysis. The 2008 financial crisis has led regulators to doubt the capacity of prices to represent all available information, and to recognise the problem of excessive complexity and derivation in the financial system (Haldane, 2009). Risk may *never* be fully internalised within dyadic, price-based exchange, due to the 'soft budget constraints' attached to Western institutions such as limited liability and central banking (Zhiyuan, forthcoming). Meanwhile, the alternative and 'pirate' modernities of rising economic powers such as India, where markets operate on the border of the formal and the informal, further challenges the liberal view of markets as dis-embedded and transparent (Sundaram, 2010). Meanwhile, hybrid liberal-socialist experiments and models in China demonstrate new paths towards economic efficiency and distribution, which do not privilege explicitness of ownership.

The paper examines each of these theoretical problems in turn, attempting to show how the delineation of the 'economic' from the 'social' has been problematised from both economic and sociological perspectives. Following Foucault and French convention theory, it treats the genealogy and problematisations of social scientific disciplines as constitutive elements in how 'economy' and 'society' are fixed, delineated and governed (Wagner et al, 1991). The institution of property comes to appear crucial to the mediation of the 'economic' and the 'social', the 'private' and the 'public', in ways that economic sociology has under-explored, a deficit that a number of economic sociologists have themselves acknowledged (e.g. Swedberg, 2003). The paper concludes by considering opportunities for future research, building on the foundations developed over the course of the ESRC Rising Powers network. Externalities, it is concluded, are problematic to the extent that their ambiguity and informality is deemed to be a problem. Alternative and rising models of economic production and ownership may turn to out be more competitive than neo-liberal ones, if they can accommodate externalities without seeking to make them fully visible and calculable. However this poses questions regarding how accounting, property and regulation might occur, in a post-neo-liberal, multi-polar world.

'Externalities' as market failure and spillover

The British neo-classical tradition of 'welfare economics' produces a set of governmental and cognitive tools with which to understand and manage the separation of the 'economic' from the 'social'. The split between neo-classical economics and sociology, that emerged out of the crisis of classical liberalism and political economy of the 1870s, creates parallel social sciences, dedicated to parallel spheres of capitalism (Clarke, 1982; Schumpeter, 1954). Stark has described the subsequent 'Parsons' Pact' between economics and sociology as the dictum that "you economists study *value*, while we sociologists study *values*" (Stark, 2009). The 'social', by this account, is a domain of knowledge and government, in which individuals act in an uncalculated, norm-based fashion, outside of the 'economic' sphere where they are treated as rational calculators and maximisers of their own self-interest. The problem of 'the social' thereby emerges partly out of a recognition that markets are limited in scope, and generate unintended and undesirable outcomes, that they themselves are unable to calculate or alleviate (Donzelot, 1991). Fourcade has suggested that from the 1890s onwards, welfare economics was a symptom of the British reformist dilemma, of how to marry a commitment to both individual liberty and social welfare (Fourcade, 2009). To this end, the term 'market failure' brackets certain problems as 'social', 'public' and normative ones, creating a justification for public policy which is still used today (e.g. HM Treasury, 2007).

Pigou's *Wealth and Welfare*, which introduced the term 'market failure', identified four categories in which the price mechanism of the market might not function (Pigou, 1912). Firstly, there are 'information asymmetries', in which one party in an exchange knows more about the product than the other. The study of this market failure was developed extensively by George Akerlof and Joseph Stiglitz (Akerlof, 1970). Secondly, there is 'market power', achieved via monopoly, cartel or collusion, in which either the buyer or the seller has no choice but to transact with a particular party, preventing the price mechanism from functioning effectively. Since the late 19th century, this has been the target of competition policy and regulation. Thirdly, there are 'externalities', in which the benefits or costs of an activity (often an exchange, but also production or consumption) spill over and affect third parties. These can be positive: telecom infrastructure and R&D produce positive externalities, because their benefits are enjoyed by more than just the immediate 'users'. They can also be negative: pollution is the classic example of a cost that is not carried by the producer. Fourthly, there are 'public goods', which are externalities which affect an entire society. By neo-classical analysis, a good is public if it is non-excludable (it cannot be privatised) and non-rival (its value is not diminished by having additional users). National security would be an example of such a public good.

A 'market failure', such as an externality, indicates that price is not an accurate indicator of value. This may not imply a reduction in welfare; it may be that value *exceeds* price, and that producers and traders are inadvertently generating more value for society than they are accounting for. A market failure can therefore be normatively desirable, when it is a 'positive externality', such as the atmosphere and security that urban commerce generates. On the other hand, if too much of the value of a good is 'external' to the price (for instance, news reporting) there is the risk of individuals 'free-riding' on the efforts of others, and the good being under-produced. The 'tragedy of the commons' is that all individuals suffer from the incentive to under-invest in shared resources (Hardin, 1968). Some sort of regulation or public provision may then be necessary, to insist that the good is produced or not damaged. Intellectual Property Rights (IPRs), such as patents and copyright, aim to ensure that inventors, creators and publishers have adequate incentive to share the benefit of their discovery or artistic production with the broader public, rather than rely on secrecy or ad hoc privatisation.

One question that the analysis of externalities generates is how public goods might be produced without state or third party intervention or coercion. The geography of externalities suggests that concentration of economic activity in cities and clusters can generate a virtuous circle of economic efficiency and social value. The economics of the public – or the 'commons' – suggests that particular types of externality can be generated without either state or market involvement. As Benkler argues, certain goods (especially information) can resist the tragedy of the commons, so long as they effectively confront three challenges (Benkler, 2002). Firstly, there must be an adequate psychological motivation to contribute positively to the commons, in the absence of monetary reward. Secondly, the common good or project must be amenable to small chunks of contribution of time and effort. Thirdly, there must be efficient ways of integrating these small contributions, and for bad contributions to be identified and eliminated. Open Source software is the almost definitive case of this, while academic publishing is another.

'Externality' is therefore the boundary object between the economic and the social, the private and the public, and economics and sociology. The concept is therefore equally amenable to use by sociologists. Cultural economists have focused on the notion of externality as a construction that is at work within the economy, which contributes towards the delineation of the 'economic' and/or the 'private', as a separate domain of capitalism. Callon understands neo-classical economics as a 'performative' technological device, which, along with accounting and associated techniques, specifies which aspects of an exchange are to be taken into account (Callon, 1998). The various technical artefacts that enable markets to operate, including money, act to distinguish the 'inside' and the 'outside' of a calculated transaction. They help to constitute certain actions, goods and spaces as 'economic' in the first place (Caliskan & Callon, 2009). As Mitchell has shown at a macro-level, state actors employ law and statistics in order to delineate and construct an object known as 'the economy' (Mitchell, 1998, 2002). Yet the specification of a separate 'economic' realm is never entirely successful, because its frame is constantly threatened by the threat of an externality spilling over, and intruding into calculations and models. The world is never absolutely divided into the calculable and the incalculable, not least because experts are at work in performing the separation between the two, and therefore also mediating between them (Mitchell, 2002: 119). From this perspective, an 'externality' is a reminder of the impossible nature of the calculated, rationalist or modernist ideal.

Knowledge is a particularly awkward type of economic good in this respect, because it is both a condition of economic exchange, and also an object of economic exchange. Benkler notes that knowledge is an unusual economic good, not only because it has the properties of a public good, but because it is its own factor of production (Benkler, 2003). The de-materialisation of economic production generates distinctive new problems of public goods and externalities. As Callon argues, "the work of economists is becoming ever more arduous because the actors they are tracking are faced by non-calculable decisions" (Callon, 1998: 263). Knowledge and information are difficult to value in a quantitative fashion and to privatise, or at least, their value is damaged by privatising them. Under what Boutang terms 'cognitive capitalism', externalities may be more valuable (or costly) than whatever goods are being privately produced and priced (Boutang, 2011). This produces a 'crisis of measure', in which capitalism's most valuable asset, and most prized forms of labour, resist the logic of exchange value and calculation, potentially creating the conditions of a new commons as Benkler suggests (Virno, 2004; Hardt & Negri, 2005). Organising urban and environmental governance around the logic of open source peer production has been promoted as a means to tackle endemic negative externalities elsewhere within advanced capitalism (Boutang, 2011).

By definition, externalities are always present, but they only get referred to when they are a *problem*. Within neo-classical economics, 'market failure' has tended to be a coded justification for state intervention, and therefore a far greater concern for public policy-makers than for professional academics. Sociologists and cultural economists recognise that every exchange or price exists in a context of third parties and uncalculated values. As Callon argues, it is only when this 'external' context invades the frame of calculation, creating ambiguity regarding what is being counted and traded, that a *problem* of externalities arises. By evading the logic of market price, externalities also suffer the problem of not being fully visible to the public or policy-makers in quantifiable terms. Pragmatically speaking, the benefit of the price mechanism is that it makes a certain value explicit and unambiguous, according to a certain register of moral worth, thereby facilitating agreement (Boltanski & Thevenot, 2006).

Externalities *can* be quantified and measured in order to render them explicit, but this involves appealing to a non-market concept of moral worth, and a different associated apparatus of measurement. The German tradition of comparative statistics evaluates social and economic performance according to a range of incommensurable values and indicators (Desrosieres, 1998). Dating back to the 1970s, the social indicators movement and national 'competitiveness' benchmarking exercises have evaluated economies in terms of their market efficiency, but also in terms of a range of positive and negative externalities, such as social capital, wellbeing, rule of law, environmental standards and so on. The technical limits of the price mechanism draw social scientists and regulators to consider the normative limits of the market 'order of worth', i.e. because markets cannot accurately gauge the worth of goods such as the environment and knowledge, alternative indexes and measures of value have to be introduced. But this then leads directly towards the problem of incommensurability, or how the measure of external social goods is to be weighed against market prices (Espeland & Stevens, 1998). Techniques for constructing hypothetical market prices for public goods, such as 'willingness to pay' surveys, aim to get around this problem of incommensurability (Fourcade, 2011).

Property rights and neo-liberalism as formalisation

In his 1978-79 lecture series, Michel Foucault draws a number of critical distinctions between the classical economic liberalism of the 19th century and the 20th century neo-liberal ideas of the Austrian, Freiburg and Chicago Schools of economics (Foucault, 2008). Where the former identified markets with the process of exchange, and therefore equivalence of value, the latter identified them with competition, and therefore inequality between persons. (Foucault, 2008: 118-119). Where liberalism set about separating state from market, and society from economy, neo-liberalism sought to refashion state, society and economy according to the market principle of competition. Liberalism was a problematic of de-limiting the scope of the state, so as to enable spontaneous and 'natural' market forces to arise, whereas neo-liberalism treated markets as artefacts which are dependent on constant legal and technical intervention by state agencies. For the neo-liberal, state, society and economy are all institutionally and ontologically integrated, and all equally amenable to economic critique and re-design along competitive principles. As Mirowki argues, this is a manifestly constructivist programme, that treats markets as legal-technical institutions to be defended and expanded, not as emergent spaces of freedom as in the liberal imaginary (Mirowski, 2009).

In its earliest intellectual manifestation during the 1930s and '40s, neo-liberalism identified markets as the guarantor of individual and political freedom. Especially from Hayek's perspective, markets were both uniquely liberal and uniquely honest, seeing as they aggregated a wide variety of values, tastes and opinions (Hayek, 1944). The ordo-liberal Freiburg tradition of neo-liberalism privileged the use of law and an 'economic constitution' to defend market freedoms via active, *de jure* use of anti-trust policy against monopolies and cartels (Gerber, 1994; Norr, 1996; Ptak, 2009). The ordo-liberal and early Hayekian analytic treated markets as embedded in a legal-institutional architecture, which would enshrine economic rights as the condition of political rights. The competitive process of the economy was therefore elevated to the status of constitutional principle, and competitive norms rendered explicit by law. As Foucault argued, under neo-liberalism "the juridical gives form to the economic" (Foucault, 2008: 163).

The Chicago School tradition of Law and Economics is at some variance with the ordo-liberal school. Inspired by Ronald Coase's theory of transaction costs and Aaron Director's critique of anti-trust policy, the Chicago School developed a theory of the competitive process in which hierarchy and monopoly could be more efficient than competition (Van Horn, 2009). Crucial to this move was a pragmatist switch away from a commitment to the price *mechanism* of market institutions, and towards the price *theory* of neo-classical economics (Davies, 2010). All that is presumed is a certain model of economic man, hence this is "no longer the analysis of the historical logic of processes; it is the analysis of the internal rationality, the strategic programming of individuals' activity" (Foucault, 2008: 223). Coaseian empiricism challenged the assumption that markets are uniquely efficient ways of coordinating choices, which he suggested ignored the problem of 'transaction costs' which are associated with all institutions, including markets (Coase, 1937). 'Transaction cost' economics abandons any notion of 'perfect' markets, recognising instead that all forms of socio-economic coordination have some cost attached to them, in terms of the contracts, negotiations and uncertainties that characterise the creation and running of institutions. Sovereign law is just another institution to be criticised in terms of its effects on price.

By applying neo-classical economics widely, to apply to hierarchies as well as markets, to the 'social' and 'political' as well as the 'economic', transaction cost economics subjects all institutions to a single, blanket efficiency audit. In the process, the market loses its exceptional status as a distinctly 'economic' and separate realm, dis-embedded from society until externalities intervene. Instead, it becomes one element in an institutional matrix, which also includes networks and hierarchies, states and firms, constraints and freedoms, and so on. By the 1970s, a new vision of anti-trust had emerged from the Chicago School, that was purely dedicated to the maximisation of efficiency (measured as consumer welfare), and agnostic as to whether this was best pursued by markets or by monopolistic hierarchies (Posner, 1976; Bork, 1978). Politically, this had the effect of generating a new legitimacy around American, managerial corporate capitalism, at a time when it was in a cultural and profitability crisis (Phillips-Fein, 2009). As Arrighi argues, the rise of the US business corporation in the 1890s, and the associated decline of the British model of laissez-faire, stems from the capacity of the former to reduce transaction costs by internalising more functions within the hierarchically integrated firm (Arrighi, 2009a). Highlighting the efficiencies of industrial concentration has been the major contribution of Chicago Law and Economics to US, and subsequently European, competition policy. Chicago neo-liberalism ought therefore to be seen as a vindication for capitalism, but not necessarily for markets.

Transaction cost economics can be seen as a harbinger of 'economic imperialism', inasmuch as it dispenses with the idea of a distinctly 'economic' realm in which neo-classical economics should be applied (Fine, 2002; Fine & Milonakis, 2009). All types of human interactions and institutions can be analysed, criticised and evaluated in terms of their economic effects. There is no 'perfect' or ideal vision of how the economy or market should be structured, but rather a constant immanent critique of the plans, policies and institutional designs of public authorities (Foucault, 2008: 246; Peck, 2010). Hence, what welfare economics terms 'market failure' or 'externality' is, from the Coasian empiricist perspective, the variable but inescapable inefficiency associated with any real-world activities, many of which are overlooked because they are not explicit. Market failure is not an all-or-nothing phenomenon, but something to be measured and costed into industrial design and policy.

Coase re-frames the concept of 'externality' as 'social cost', and asks how it can be most efficiently be handled (Coase, 1960). Where 'externality' implies a suspension of normal market principles, 'social cost' is internal to the overall efficiency calculus, even if it is external to the price mechanism. The price system can become more efficient if institutions are redesigned so as to internalise costs and benefits within prices. Legally defined and enforced property rights are therefore a political construct which enables the market system to work efficiently (Demsetz, 1967). From a Coasian, neo-liberal perspective, markets may not be the most efficient means of co-ordinating economic relations, but often they can *become* such a means, if the state is ready to extend and clarify property rights. As critics of neo-liberalism have argued, it is not (at least in its 'American' manifestation) a program of entrenching and extending markets, but one of entrenching and extending private ownership, especially into intangible realms of risk, organisations, knowledge, creativity and so on (Harvey, 2005). In the area of corporate governance, the development of neo-classical 'agency theory' led to the neo-liberal shareholder value movement, in which a firm was the private property of shareholders, and shareholder value maximisation the sole duty of managers (Khurana, 2007).

Where ordo-liberalism prioritises formalising the rules of the competitive process, Chicago Law and Economics prioritises formalising private ownership of goods, including ownership of the spillover costs and benefits associated with those goods. Both treat the juridical as 'giving form to the economic', but ordo-liberalism formalises norms of competition, whereas transaction cost economics formalises norms of ownership and control. Actions taken on behalf of the 'public', including those by the state on the basis of 'market failure', are typically found to be inefficient, for they too have failed to account for their full social and transaction costs. Instead, the benefit of private property rights is that they are, potentially, unambiguous, and it is from this that their efficiency stems: they can be adequately internalised within economic calculations. In a sense, formally instituted property is simply a very efficient form of monopoly. Neo-liberalism instrumentalises the institution and psychology of *ownership*, so as to place ever more assets, problems, ideas, future possibilities, natural events and policy challenges under private management.

The Hayekian, neo-liberal adaptation of Smith's 'invisible hand' therefore preserves the paradoxical liberal presupposition that individuals serve the public interest when they focus on their own private interests, but adds two co-dependent elements which are carried into Chicago School neo-classical economics. Firstly, individuals are deemed to act most efficiently and freely when they are scarcely aware of what their goals are, that is, when their values and tastes are tacit or even unconscious (e.g. Hayek, 1945; Becker, 1976). Secondly, that the complexity of modern, industrial capitalism is such that considerable work must be done to reduce its semiotic and normative ambiguity. The world must be rendered as explicit and formal as possible, so that individuals can act in a way that is as unplanned as possible. The advantage of property rights is that they support this political phenomenology, creating firm, unambiguous links between choices, things, values and outcomes.

Two sociological rejoinders to this form of neo-liberalism can be identified. Firstly, a 'new' economic sociology emerged in the 1980s to counter the 'economic imperialism' of neo-classical institutionalism. If ‘the social’ is amenable to a calculated efficiency analysis, as it is for Coase (and Coasian institutionalists such as Williamson and North), then ‘the economic’ can also be amenable to a sociological and cultural analysis. ‘Parsons’ pact’ is therefore called off by both sides. The liberal separation of ‘economy’ from ‘society’, which Polanyi saw as an effect of the three ‘fictitious commodities’ of land, labour and money, is replaced with a theory of embeddedness, in which even calculated, atomised and competitive action is a property of social networks and pre-existing norms (Granovetter, 1985; White, 2002; Fligstein, 2001). Methodologically, transaction cost economists assume that activity operates in private dyads, until social cost becomes too great, whereas ‘new’ economic sociologists assume that dyadic market exchange is only facilitated in the first place by the presence of third parties. ‘New’ economic sociology descends from White’s phenomenological assumption that individuals are ‘always already in’ social relationships. However, the Coasian neo-classical tradition and the Whitean network tradition are aligned in abandoning the liberal and Polanyian assumption that markets and society are ‘external’ to one another.

The risk is that ‘new’ economic sociology simply stands Coase on his head, and counters neo-classical reductionism with sociological reductionism, appealing to ‘the social’ to explain market competition, just as Coase appeals to ‘incentives’ to explain co-operation and hierarchy (Caliskan & Callon, 2009). Both, for example, lead towards a constructivist vision of the economy, in which law, accounting and norms perform a crucial role in determining how the competitive and calculative process occurs. Yet ‘new’ economic sociology has rarely highlighted the importance of explicitness, formality and visibility in the neo-liberal rendering of the economy, to the same extent that theorists of risk, accounting and neo-liberal government have done *outside* of the market realm (e.g. Hopwood & Miller, 1994; Power, 2007; Hood, 2011; Muniesa & Linhardt, 2009). Typically, orthodox economic sociology has sought to demonstrate the integration of the unwritten and the written, the informal and the formal, without considering *why* certain experts, interests or actors might want to eradicate ambiguity and the politics of how this is performed. ‘New’ economic sociology has therefore had little to say regarding neo-liberalism, or its distinction from liberalism, perhaps because it has been historically coterminous with it.

Secondly, sociologists have studied the dynamic processes whereby new objects and assets have become amenable to private ownership. These have included the transition economies of Eastern Europe following the collapse of socialism, and the growth of IPRs in scientific, inventive and creative industries. If, as Marxist critics have argued, neo-liberalism is ‘accumulation by dispossession’, the processes whereby previously public assets (such as state-owned assets) become drawn into the market economy becomes a crucial object of investigation (Harvey, 2005; Peck, 2010). Harvey views neo-liberalism as a vehicle for class interests, with privatisations an alternative to accumulation via profitable production.

However, it is important also to recognise the extent to which property rights are a *public* institution and *public* policy solution, via which neo-liberal goals of explicitness and formalisation have been pursued. There is a phenomenological question of how they help to reduce the ambiguity and incalculability of public goods and social costs (or externalities). Analysed in terms of transaction costs, it may be more efficient to regulate public goods through the artificial creation, formalisation and distribution of property rights (thereby allowing distributed, private judgement regarding optimal investment in and use of the goods) than to introduce public regulations. Distinctive neo-liberal policies are therefore those which seek to solve problems of ‘the commons’ through introducing and/or formalising ownership and access rights, as Hernand de Soto has advocated in the sphere of development and a number of governments have introduced in response to externalities such as pollution (de Soto, 2000). The metaphor of intellectual property rights, delineated in such a way as to facilitate *publication* of new knowledge, mutates under neo-liberalism into a more explicit form of ownership as monopoly, in which ‘owners’ of knowledge have exclusive rights to its benefits.

Considerable expert, technical work goes into these policies, especially by lawyers and economists, which itself can be studied empirically. The artificial creation or fomalisation of property rights has been studied in the case of sulphur dioxide emissions in the United States (Levin & Espeland, 2002), fishing quotas in Iceland (Helgasson & Palsson, 1998) and experiments based on de Soto's work in Peru (Mitchell, 2005). Costs and benefits associated with public goods are made explicit in these cases, but the public quality of the goods in question is not unaffected. Securitisation achieves a similar function in the financial system, transforming social credit relations into paper that can be bought and sold, so that 'ownership' of risk can supposedly be distributed to whoever is best placed to carry it. Inevitably, such techniques and policies are never entirely successful – the problem of 'social cost', 'the public', 'externality' or ambiguity is never entirely eradicated – but the politics of formalisation and explication (or 'economisation') is worthy of study nevertheless. Espeland's work on commensuration contributes to a sociological understanding of how tacitly understood values and norms are codified, quantified and then measured, so that they become both mobile and explicit. Just as new public management seeks to replace professional judgement with standardised performance evaluation, so the creation of new property rights standardises rights and responsibilities in ways that makes costs and benefits apparent.

However, economic sociology has rarely confronted a more fundamental question of *what property is*, and *what sorts of norms underpin it*, having been largely distracted by the institution of markets (see Carruthers & Ariovich, 2004). From Locke onwards, the liberal imaginary understands property as that which is earned through labour and effort (Ryan, 1984). This is threaded through the labour theory of value of classical political economy, and hence into Marxism. But while the Coasian critique of law achieves a purely empirical justification for private property rights (hence without any sense of the intrinsic normativity of the private and the public), sociology has scarcely offered an alternative, other than the Marxian critique of 'bourgeois' property rights. One exception to this is Durkheim, who identified property with *exclusiveness*, criticising the liberal Lockean attempt to ground property in ownership of the body and labour (Durkheim, 1991). The capacity for property to exclude was a secularisation of the capacity of sacred objects to exclude, or for individuals to be excluded by taboo:

Around the thing appropriated, as around the sacred thing, a vacuum formed. All individuals had to keep at a distance, as it were, except those who had the required qualifications to approach it and make use of it. (Durkheim, 1991: 143)

Private property, like sacred things, is withdrawn from the public, which is what gives it its definition. Contrary to both Coasian and Whitean institutionalists, Durkheim does not view property as an artificial, human invention. It begins with that which is given in a religious sense, and is gradually subjected to secularisation, via mediating rituals. A religious sacrifice enables a harvest to shift from the realm of the sacred gift, to that of the secular economy; before land can be privately owned, it must first have its ancestral quality recognised and purged (Durkheim, 1991: 156-7). The binary split between the 'owned' and the 'unowned' is not challenged by Durkheim's account, meaning that there is little sense of the leakage, ambiguity or hybridity that might exist between the two.

Ambiguity and complexity after neo-liberalism

The crises of neo-liberalism are of its own making, deriving from the project of rendering all social, political and economic values *explicit*. When drawing his famous distinction between 'risk' and 'uncertainty', Frank Knight did not argue that uncertainty can ever be *converted into* risk, only that quantitative risk calculations and models are one pragmatic response to the existential condition of uncertainty (Knight, 1957). But neo-liberalism forgets this, and sets about seeking to eradicate ambiguity, convert values into value, and replace professional judgement with performance evaluation. Not only does it seek to drive a competitive ethos into all corners of social and political life, but it aims to illuminate institutions using the same apparent numerical clarity as the price system. It rests on what Porter terms 'trust in numbers' (Porter, 1995).

Forgetting residual ambiguity, uncertainty and informality (or what might be called 'externalities') is itself a risky business. In the public sector, the creation of targets and 'new public management' generates the unintended consequence of 'gaming', perverse incentives and inefficient rituals of quantification and verification (Bevan & Hood, 2006; Power, 1997). The 2008 financial crisis, which stemmed from securitisation of mortgage debt, can be partly explained in terms of excessive confidence in the risk models being used by banks, central banks and credit-rating agencies. As MacKenzie has examined, when a single economic model becomes sufficiently powerful within a financial market, it can become 'counter-performative', because individuals start to act on the basis of the model and not what is modelled (MacKenzie, forthcoming). The epistemology underlying financial de-regulation was the Hayekian one that uncoordinated individuals, all acting instinctively in their own interests, would increase the overall security of the financial system, so long as information was unambiguous. Intervention by public authorities could only disrupt this distribution of risk by private traders. Securitisation meant that the uncertainties involved in credit relationships could also be converted into risks, to be bought, sold and owned as private property.

The financial crisis highlighted the fact that private actors have 'soft budget constraints' as well as 'hard budget constraints', but as Zhiyuan argues, these are disguised by a number of hybrid public-private institutions in Western capitalism (Zhiyuan, forthcoming). Private banks were given the freedom to trade and 'own' risks which they could neither fully afford, nor were legally obliged to pay for, should their investments fail. Zhiyuan identifies limited liability, central banking and bankruptcy laws as institutions which prevent risks from being privately owned in Western economies, therefore ensuring that Coasian attempts to reduce social cost through privatisation are bound to fail. He notes that Hayek himself was opposed to central banking, for precisely this reason. The Coasian perspective is therefore turned around *against* the neo-liberal faith in private ownership, to highlight the various social costs which remain tacit and unquantified, even when – or especially when – legal property rights are in place.

Following the crisis of neo-liberalism, and the rise of Indian and Chinese economies operating outside of the 'Washington Consensus', the question is how we might conceive of the relationship between the 'economic' and the 'social' in ways that neither separates them into parallel realms as liberalism does, nor reduces one to the other as neo-liberalism does. Classical liberalism, echoed in welfare economics, sees the possibility of economy being dis-embedded from society, until an 'externality' periodically dissolves the boundary between the two. Neo-liberalism treats the social as an inefficiency, to be rendered transparent and explicit through property rights. 'New' economic sociology counters this neo-classical, neo-liberalism imperialism by re-conceiving market relations as constituted by social networks and institutions. But what alternatives are there for socio-economic analysis, that might be applicable to the 'rising powers'? The perspectives that are of interest here are those which appreciate the inter-penetration of the social and the economic, the public and the private. They treat the informal and the formal as bound to one another, possibly as opposite ends of a single spectrum.

Firstly, an emerging cognitive and regulatory perspective is emerging in the West, which potentially recognises many of the lessons of the financial crisis. This dispenses with Pigou's binary split between market and 'market failure'. Borrowing from complexity theory, systems analysis and ecological metaphors, a number of economists and regulators are trying to understand how financial markets interact with their institutional and cultural environments, to behave as socio-economic systems. Symptomatic of this is the 'adaptive markets hypothesis', which treats financial markets as reflexive, and therefore liable to forms of emergent, systemic behaviour which prices will not reflect (Lo, 2004; Haldane, 2009). The object of analysis is not the market or institutions, but the aggregate ecology of markets and non-market institutions, whose behaviour is studied as a complex adaptive system. Prices are recognised to reflect information that is available to various private parties, but never to reflect on the overall behaviour of the financial system at large, which is how bubbles develop. Regulators therefore acquire 'macro-prudential' responsibilities, to spot systemic behaviour associated with bubbles, and to dampen confidence in the market at these moments. As the adaptive finance theorist, Andrew Lo argues, "market efficiency is not an all-or-none condition but is a characteristic that varies continuously over time and across markets" (Lo, 2005). Private exchanges are neither sealed from the public, nor flooded by it, but rather the boundary between the two varies in its strength.

The type of economic knowledge at play here is aesthetically very different from the neo-classical rationalism of transaction cost economics and agency theory. Models are not offered as quantitative statements of future risk, but as representations of complex adaptive behaviour, whose implications are always ambiguous. Fractals have been used to represent the behaviour of financial systems, even in real time using data-mining techniques (Mandelbrot, 2008), while Lo has suggested that the relationship between economist and economic actors should be treated as analogous to that of therapist and patient (Lo, 2005). As with policy efforts to alter the behaviour of individuals using 'nudges', regulators take on responsibility to improve the architecture of financial markets, to enable more accurate calculation of preference on the part of individual actors, and to represent recent patterns of behaviour. The 'public' therefore re-emerges as a problem, though not as an 'externality' or merely as an unaccounted cost. Instead, it is a variable condition, affecting the capacity for private individuals to calculate their own interests accurately, and which third parties and regulators can influence. This same notion of the public can be seen in efforts to 'nudge' consumer behaviour towards their bodily or environmental interests: the Hayekian, liberal ideal remains, of private actors inadvertently pursuing the public interest, but they may now need assistance to do so. Markets *should* be transparent, but often aren't; prices can tell the truth, but vary in their tendency to do so.

A more radical departure from neo-liberalism occurs where it is not only economic calculation that admits ambiguity, but private property rights that are ambiguous. Sundaram identifies an emergent form of 'pirate modernity' in the markets of New Delhi (Sundaram, 2010). The complexity of the marketplace renders it opaque to rationalist regulation, just as the complexity of the post-colonial city subverts its initially rationalist ideal of urban planning. By bypassing the claims of intellectual property rights holders (in defiance of neo-liberal tactics of WIPO and the WTO, which serve US copyright industries), new socio-economic networks of production and exchange emerged in Delhi over the 1990s, which are impossible to render entirely visible or formal. Just as property rights over media content are rendered ambiguous by the pirate economy, so property rights over urban space are informalised. Instead, the public and the private are enmeshed in one another.

The dichotomy of 'market' and 'externality' fails to capture pirate modernity, seeing as the limits of the market and of private ownership are entirely uncertain. In Callon's terms, it would be very difficult to specify what was internal to the frame of calculation in the markets studied by Sundaram; instead, the frame itself appears permeable, and a spectrum of formality and informality has come to organise how such post-colonial economies are conceived (Hart, 1973). And yet, while informal economies do not operate 'outside' the market, they do, arguably, operate outside of processes of capital accumulation. The absence of formal property rights prevents the possibility of long-term investment or hierarchical integration of production, much as de Soto argues from a neo-liberal developmental perspective.

China's gradual entry into the world market has been heralded as a further alternative to neo-liberalism, resting on hybrid public-private arrangements and ambiguous property rights. Various experiments in shared land ownership demonstrate how the boundary between the private and the public can be blurred, without suspending market mechanisms, as Zhiyuan observes in Chongqing (Frenkiel, 2010). Market competition between state-owned and privately-owned enterprises challenges the neo-liberal commitment to privatisation, or 'accumulation by dispossession', instead focusing on increasing levels of competition in the marketplace (Arrighi, 2009b: 359). The competitive advantage of this model is precisely that it does not pretend to be able to privatise, quantify and explicate all risks, but involves a system of property rights in which the inter-penetration of the public and the private are acknowledged. Many of the most innovative reforms have been those which do not formalise or privatise, but leave rights and responsibilities ambiguous and socio-economic in nature. As a case of this, Arrighi focuses on the creation of Township and Village Enterprises, arguing that this "may well turn out to have played as crucial a role in the Chinese economic ascent as vertically integrated bureaucratically managed corporations did in the US ascent a century earlier" (Arrighi, 2009b: 363). It is via models such as this that Arrighi believes China is developing a non-capitalist system of market liberalism, which potentially exploits capital, rather than labour.

In these instances, the ambiguity of calculation and of property rights becomes a virtue. Externalities become accounted for through abandoning the pursuit of complete transparency, commensurability and framing of the economic. They are not converted into items of property (as in securitisation, emissions trading, privatisation), but nor are they simply the problem of the state. The precedent for this approach to property and markets may lie in the tradition of 'revolutionary' or 'socialist' liberalism, as Zhiyuan acknowledges (White, 2009). Focused on the pursuit of what Meade termed 'agathopia' ('good place') or Wright terms 'real utopias', liberals and 'civic republicans' offer a normative critique of property relations in terms of the public and democratic freedoms that they facilitate (Meade, 1989, Wright, 2010). The creation of 'social property' becomes a means of constraining both capital and the state.

Ownership, by this account, involves a bundle of formal and informal, written and unwritten, rights and responsibilities, which can be pieced together in various combinations. It is not simply a technical and complete monopoly over a certain idea, asset or outcome (not least because such a monopoly is never in practice realised, without considerable coercion). The legal philosopher, Tony Honore, identifies eleven separate characteristics that may be present in property, and argues that there is no definitive characteristic, nor any case of 'absolute' property (Honore, 1987). Hence, as an alternative to the neo-liberal vision of the corporation as the private property of external shareholders, mutual and co-operative models of ownership generate a productive ambiguity regarding the identity of the owner (Davies, 2009). Rendering it impossible to explicate or quantify the ultimate purpose or performance of the enterprise, this model both allows and requires managers to consider 'social externalities' in their decision-making. The firm is ambiguously profit-making, rather than unambiguously profit-maximising. Equally, the critique of 'intellectual property' can point to the fact that knowledge has an ambiguous public-private character, both morally attached to its author or inventor, and publicly available to an audience. The legal licenses which aim to nurture the digital commons never rest on a binary or zero-sum notion of private and public knowledge, but seek to restrict uses of knowledge for public purposes.

Conclusion and future research directions

Optimistic Marxian analyses suggest that economies organised around 'social property' have latent competitive advantages over neo-liberal forms of organisation. Hardt and Negri argue that the de-materialisation of capitalist production means that efforts to privatise value are becoming less and less plausible (Hardt & Negri, 2000, 2005). Arrighi sees a future for China in "self-centred market-based development, accumulation without dispossession, mobilisation of human rather than non-human resources, and government through mass participation in shaping policies" (2009b: 389). Even many neo-liberal theorists now argue that firms will increase private competitive advantage if they seek to account for at least some of the negative externalities they generate (cf. Porter & Kramer, 2011). And sovereign debt crises in Western economies significantly impede the capacity for public goods to be provided via the state. To the extent that it can generate self-sustaining public goods and innovation, ambiguity of purpose and of measurement is an economic asset (Stark, 2009). This does, however, represent an affront to the modern impulse to codify, fix, quantify and discipline.

Within this cluster of themes, there are exciting opportunities for research, regarding how such ambiguity is managed in practice, which build on the insights accumulated over the course of the ESRC Rising Powers network. Firstly, how do alternative, non-neo-liberal or post-neo-liberal property regimes get enacted in practice? What is the role of law in such regimes, and what is the role of unspoken or tacit norm? If law does not exist to provide 'form' for the economic, as it does under neo-liberalism, what is its function? The sociology of property, to the extent that there is one, tends to accept the binary view of ownership, as either entirely private or entirely public. It assumes the efforts to privatise are entirely successful, even while cultural economists demonstrate how efforts to calculate are not. Wright's 'emancipatory social science', which seeks to identify existing forms of non-capitalist ownership and production is an exception here (2010). There are plenty of goods, in neo-liberal and non-neo-liberal economies, which do not fit tidily into formal categories of appropriation, as Zhiyuan's analysis of 'soft budget constraints' highlights. But theorising these may require recognising the multiple formal and informal dimensions of property, and the impossibility of any absolute form of property. Beyond that, qualitative and ethnographic research is required, to understand how the formal and the informal dimensions of property rights and markets intersect in the practices of markets and urban economies. This also requires economic sociologists to pay more attention to the institutions of property rights and ownership, and arguably to be less preoccupied by those of markets and exchange.

Secondly, how does accounting and measurement cope with ambiguity of value, and the ambiguous limits of private property? To what extent do tacit costs – such as 'soft budget constraints' – get accounted for, and how is uncertainty factored into decision-making and accounting? Where externalities are acknowledged, but not fully quantified or priced, managers and public policy makers have to proceed without fully quantifying and commensurating value. Stark identifies this as the definition of entrepreneurship. But it represents a major challenge to instrumental, procedural rationality. The social studies of accounting, plus Mitchell's work on economics as a technology of governance, provide significant examples of how to study the limits of calculation and measurement. But this leaves a further empirical question unanswered (especially in nations such as China and India) of how valuation practices are performed, beyond the limits of neo-classical economics and neoliberal legal regimes. Studying this requires pluralism on the part of researchers, to reflect the evaluative pluralism of the actors themselves. In his influential critique of economic rationalism, *The Romantic Economist*, Bronk argues that "the full solution to many of the problems tackled by economists under the rubric of 'externalities' may require a research interface with the discipline of sociology, as well as with environmental science, engineering and so on" (Bronk, 2009: 126). It is precisely to this end that the Rising Powers network sought to bring economists and sociologists into dialogue with one another.

Thirdly, what are the implications of alternative models for our understanding of organisational and political modernity? The neo-liberal emphasis on transparency, measurement and visibility is, in many ways, merely the acceleration of processes that Foucault traces back to the late 18th century. How do 'pirate modernity' or experiments in non-state socialism affect and resist this trajectory? How can we conceive of the relationship and mediation between the visible and the invisible, the formal and the informal, in non-binary ways, where the latter is in need of rationalisation by government? These are questions that have arisen over the course of the ESRC Rising Powers symposia, which will now be integrated into proposals for future research.

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