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Geography, nature, and the question of development

Eric Sheppard

University of Minnesota, USA

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Abstract

During the last decade, geography has gained new salience as a development factor in the public imagination and policy realms, through the work of scholars located outside the discipline. Jared Diamond and Jeffrey Sachs have popularized the idea that a physical geographic backcloth, first nature, profoundly shapes the conditions of possibility for global economic prosperity or poverty, and sustainability. Geographical economists have built microfoundational accounts of second nature: how uneven geographies emerge on a uniform biophysical backcloth. ‘New’ development economists, now profoundly critical of neoliberal globalization, argue for both Keynesian and Hayekian alternatives. Notwithstanding their differences, these communities of scholarship share a sociospatial ontology that underwrites a stageist, teleological conception of economic development, to be made possible by globalizing capitalism. A geographical, relational/dialectical conception of the relationship between the economy, space/time and socionature, within a broadly political economic conception of societal change, creates space for multiple development trajectories and livelihood assemblages, deconstructing the global North as the natural locus of definitions of the good life and expertise about what constitutes development.

Keywords

assemblage, contestation, development, economics, geography, nature, positionality, spatialities

Introduction

Geography continues to struggle to control its own destiny. When presenting a lecture on trade-led globalization at the Center for Advanced Study in the Behavioral Sciences in 2005, to the most challenging and engaged interdisciplinary social science and humanities audience I have faced, I thought long and hard about how to convey what geographers do. It became clear in the questions posed during and after the talk, however, that the audience already had a strong conception of Geography, namely that publicized by Diamond and Sachs, and wanted me to explain how my work related to theirs. I recalled my service on a funding panel in the late

1990s, which rejected a proposal by economists to study geography and economic development. Any *Schadenfreude* at telling economists how geography should be done was short-lived. Within months, this approach was featured in World Bank discussions on development (cf. Henderson, 1999). In August 2006, the Federal Reserve Bank of Kansas City hosted a symposium on economists’ economic geography addressed by US Federal Reserve chairman

Corresponding author:

Department of Geography, University of Minnesota, Minnesota, MN 55455, USA

Email: shepp001@umn.edu

Ben Bernanke. Now, drawing as much on Paul Krugman as Sachs, the World Bank's *World Development Report 2009*, subtitled 'reshaping economic geography', signals that global policy-makers are highlighting this relationship (World Bank, 2008). Krugman himself was awarded the 2008 Nobel Medal in Economics, in part for his formulations of how geography, trade and development are interrelated.

As these experiences illustrate, a tension has emerged between conceptions of geography and development circulating in society at large, and the dominant forms of knowledge produced within and circulating through academic human geography. The emerging consensus that geography matters to global development has been shaped by the arguments of Krugman, Diamond and Sachs. The publicity that they have brought to geography has been avidly exploited within parts of the discipline, including plenary lectures as 'honorary geographers' at AAG meetings. Nevertheless, these arguments have been repeatedly criticized by leading human geographers for their dated conceptions of geography, for regressing toward what has been described as spatial fetishism and environmental determinism, and for endorsing a Rostowian triumphal vision of the stages of capitalist development (Rostow, 1960). As I argue below, such criticisms are grounded within the relational and dialectical sociospatial ontology framing much of contemporary economic geography. This raises the prospect, once again, that external beliefs about why geography matters not only diverge from but also are in danger of overwhelming geographers' own beliefs.

Yet the issues are more complicated than a simple disagreement about what Geography is and how society should develop. Diamond and Sachs have become prominent in discussions about how to intervene to make the world more sustainable. Beyond this, Sachs, and prominent US 'new' development economists Joseph Stiglitz, Dani Rodrik and William Easterly, offer many of the same criticisms of neoliberal globalization (notwithstanding their earlier complicity with neoliberal interventions) that circulate in human geography, development studies, and alternative globalization social movements. Are mainstream economists more like critical economic

geographers than we are willing to admit? Do such shared political criticisms imply convergent views on geography and development?

In exploring these questions, I critically assess the narratives of geography and economy promoted by these authors, and the development imaginaries that these entail. The answers to these questions are of much more than Ivory Tower, 'how many angels can dance on the head of a pin', import. At the center of these authors' narratives is the notion that nature and space create unequal conditions of possibility for economic prosperity, accounting to a significant extent for the historical persistence of global inequality before and since the era of European colonialism. As the anthropologist Deborah Gewertz has put it, such arguments imply that '[t]he haves are not to be blamed for the condition of the have-nots'.¹ They also reinforce a conception, held by western thinkers and policy-makers at least since colonial days, of development as a teleological sequence of stages, pioneered by wealthy capitalist nations, that all nations should pursue. Human geographic theory has articulated very different geographical narratives, entailing very different views on development.

The paper is organized as follows. First, I analyze Sachs' and Diamond's geographical imaginary. I conclude that their reliance on first nature, when examined through the lens of economic and biological theories of development, leans toward a teleological account of economic development in which 'geography' disrupts the otherwise flattening playing field of globalizing capitalism. Second, I turn to the geographical imaginary mobilized by geographical economists' conceptions of geography and development. This departs from Sachs by focusing on second rather than first nature. I conclude that here, too, a fixed geographical backcloth is presumed, on the basis of which spatial economic patterns are deduced (as equilibrium outcomes from spatial competition): a backcloth generally characterized by isotropic configurations, given transportation costs, and fixed national boundaries (Garretsen and Martin, 2010). A number of geographical economists have pointed to ways in which space undermines the putative benefits of spatial competition, and to the problems of

market triumphalism. Nevertheless, methodological territorialism favors the conceptualization of territories as subject to a common development trajectory, whereas connectivities between places are presumed, on balance and after appropriate intervention, to be mutually beneficial and functional for advancement along this trajectory.

Third, I examine the ‘new’ development economists, whose criticisms of this most recent era of neoliberal globalization are strongly reminiscent of those popular in critical human geography. From this shared critical stance, these economists bifurcate into two subgroups; one advocating for various kinds of Keynesian interventions, with the other taking the Hayekian neoliberal position that states and the development industry need to conform with market principles. Notwithstanding such disagreements, I find that there is a shared belief in universally applicable economic laws, in the capacity of globalizing capitalism to bring prosperity to all, and in a teleological development path. Indeed, I argue that Keynes and Hayek share this view, for all their policy disagreements.

Fourth, I compare and contrast the sociospatial ontologies underlying the conceptualizations of mainstream Economics and Anglophone geographical political economy, and the imaginaries of development that these mobilize. Economics, I contend, is characterized by methodological territorialism, bottom-up scalar hierarchies and ubiquitous economic laws, underwriting a teleological, stageist conception of capitalist development. Geographical political economy has developed a very different, dialectical and relational, ontology, implying a multifaceted and indeterminist conception of livelihood assemblages – one for which the term development hardly suffices. I conclude by reflecting on the problem of engaging between alternative livelihood assemblages and development imaginaries.

Before proceeding, however, I wish to dispel one possible misconception. It is not my intent to suggest that the intellectual community should be divided into geographers and non-geographers, with only the former deemed qualified to produce adequate geographical knowledge. Such boundary-making is, of course, inimical to the health of any discipline, and it is demonstrably the case that

contemporary geographic theory is deeply shaped by, as well as shaping, knowledge production beyond the discipline. Indeed this paper assays an engagement that transcends any such boundaries. I highlight the differences between geographical and economic imaginaries of nature, geography and development as a first step toward what I hope will be engagement between different perspectives critical of neoliberal globalization. Engaged pluralism first requires clearing space for different ‘local epistemologies’ to be taken seriously (cf. Longino, 2002); which is what I attempt, here, through a form of strategic essentialism that highlights epistemological differences.

‘First’ nature, geography and development

As is well known, Diamond and Sachs argue that nature, taken to include both biophysical processes and the morphology of the landscape, has been overlooked as a factor that has long shaped the conditions of possibility for human development, and thereby global inequality. In so doing, they stress geography as ‘first nature’: as a pre-existing uneven geographical backcloth.² Writing as an evolutionary biologist, in *Guns, Germs and Steel* Diamond provides what he terms a short history of the world since 11,000 BC (Diamond, 1997). He asserts that the biophysical environment and the morphology of continents are the ultimate explanation of agricultural productivity, technological dynamism and other crucial aspects of societal change (a set of proximate causes that includes capitalism, mercantilism and science). Two features of the biophysical environment receive particular attention: differences between the tropical and temperate latitudes in the biophysical capacity to produce an annual agricultural surplus; and the shape and directional orientation of continents. Societal innovations and human movements are argued to diffuse more readily East–West, within the same latitudinal zone, than North–South (for a critique, see Blaut, 1999). He concludes that the contemporary prosperity of the global North is rooted in historical environmental inequalities, stressing this environmentalist explanation as an

alternative to Eurasian-centric human histories. Like critical geographers, then, Diamond finds the latter problematic because they explain underdevelopment as due to the cultural idiosyncrasies and inadequacies of non-Eurasian societies.

This causal framework is reprised in *Collapse*, albeit with a different purpose (Diamond, 2005). *Collapse* is a Malthusian morality play: a warning to his US audience that our lifestyles are unsustainable. Examining societies around the world, he argues that the occasional collapse and disappearance of human societies is shaped by a combination of five factors: societal response to environmental problems; damage that humans inadvertently inflict on their biophysical environment; climate change; hostile neighbors; and friendly trading partners. Of these five, only the first ‘always proves significant’ (p. 11) – although Diamond admits to a selectivity in his choice of cases, excluding societal collapses (e.g. the Soviet Union and Carthage) where the environment does not matter. In this view, collapse (whether on Easter Island a thousand years ago, in the Yucatan 500 years ago, or Rwanda a decade ago) is triggered when societies exceed their natural limits.

Jeffrey Sachs takes a different approach, while coming to similar conclusions. Utilizing fine-resolution geospatial data measuring population density, and gross domestic product (GDP) per capita and per square mile worldwide, Sachs and his colleagues compute a regression, in which tropicality and distance from navigable water are statistically significant predictors of levels and rates of growth of GDP (and population density) (Gallup et al., 1999). The regression specification is derived in reduced form from a standard neoclassical single-sector economic growth model in dynamic equilibrium, augmented with possibilities of increasing returns, in which differences in transport costs (measured by distance to navigable water) and lower productivity (measured by tropicality) are hypothesized to reduce equilibrium growth rates, *ceteris paribus*. In Ricardo Hausmann’s felicitous term, countries are ‘prisoners of [their] geography’ (Hausmann, 2001). Differences in natural endowments prevent rates of economic growth from equalizing across places, with the implication that

development institutions and states must intervene in order to level an economic playing field permanently distorted by Geography.³

Diamond and Sachs have each been accused of the heinous crime of environmental determinism (Blaut, 1999; Peet, 2006), since nature plays the significant causal role in their accounts, as society’s *eminence grise*. Nevertheless, apprised of their criminality, each has vehemently pled innocence. Admitting to some initial naivety ‘that [*Collapse*] would just be about environmental damage’, Diamond argues that he has learned otherwise. Exhibit A is his comparative study of Haiti and the Dominican Republic, where ‘environmental differences [are] the smaller part of the explanation. Most ... has instead to do with differences between the two peoples’ (Diamond, 2005: 11, 333). Sachs seeks to ‘banish the bogeyman of geographical determinism, the false accusation that ... geographical disadvantage ... single handedly and irrevocably determines the economic outcome of nations’ (Sachs, 2005: 58).

Neither Sachs nor Diamond accepts the racialized version of environmental determinism of Ellsworth Huntington and Ellen Churchill Semple, popular a century ago: the view, once used to justify colonial rule and the white man’s burden, that climate determines human nature (Hart, 2002). Each believes passionately in the equal capacity of all humans. Diamond’s respect for the indigenous knowledge and skills of inhabitants of New Guinea (a place he knows well from his ornithological fieldwork) matches Blaut’s respect for peasant farmers in Latin America (cf. Blaut, 1987; Diamond, 2005), and Sachs is deeply opposed to those who would blame the poor for their own impoverishment. Further, both Sachs and Diamond accept that humans transform the non-human world (making them environmental probabilists rather than determinists). Advocating a less exploitative relationship with nature is the central theme of *Collapse*, and Sachs has argued that many real problems still faced in societies located near the equator (disease vectors, pests and vermin, poor transportation, limited agricultural innovation) are a result of inappropriate global socio-economic priorities rather than environmentally caused. He notes, for example, how drug

companies have failed to address tropical diseases because lifestyle drugs for well-heeled customers in the global North are more profitable (Sachs, 2001).

Yet their accounts of global development still rely on the idea of first nature: a conceptualization of geography as an exogenous backcloth (so slow-moving, by comparison to the dynamics of societal change, that it can be taken as fixed). In this view, geography is a set of natural features that are 'resolutely external to society' (Castree and Braun, 1998: 7; cf. Krugman, 1993). 'Geography is as exogenous a determinant as an economist can ever hope to get' (Rodrik et al., 2004: 134). For the general equilibrium theory that mainstream development economists aspire to, exogenous variables are as rare as hens' teeth, so this has generated a minor industry of econometric studies seeking to estimate the statistical effect of tropicality and distance to navigable water on mean rates of GDP growth; largely at the international scale, but also at the subnational scale (focusing on access to water, cf. Démurger et al., 2002; Sachs et al., 2002). This has been dominated by a debate about whether exogenous 'geography' dominates institutions as the determinant of economic growth.⁴ Acemoglu et al. argue that institutions dominate 'geography': that the eventual prosperity of more temperate colonies by comparison to tropical colonies, notwithstanding lower urbanization and population density in the former, is explained by the white settlers who dominated (and eliminated) indigenous populations and brought the right (European) institutions with them (Acemoglu et al., 2002). In short, European superiority is the key – an argument that is fraught with, presumably unwitting, stereotypes about Europeans civilizing the backward tropics.⁵ Rodrik et al. (2004) and Easterly and Levine (2003) reach a similar conclusion. By contrast, Faye et al. (2004), Nordhaus (2006), Olsson and Hibbs (2005), and Presbitero (2006) conclude that 'geography' trumps institutions. Przeworski (2004a, 2004b) is compelled by neither position, arguing simply that endogeneity matters, implying that it is logically fallacious to seek one or the other principal cause (he implicitly rejects 'geography' as the cause because he takes it to be exogenous, but without accepting the alternative of institutions).

Thinking about development

The different disciplinary backgrounds that Sachs and Diamond bring to these debates bring with them distinct disciplinary conceptions of development. In Biology, debates about evolutionary theory have revolved around two contrasting conceptions. On the one hand are teleological accounts of evolution, placing humans at the top of an evolutionary trajectory of ever increasing complexity.⁶ On the other hand, Stephen Jay Gould has argued that the fossil record undermines such teleological accounts: that chance, rather than complexity, shapes evolution – that humans' dominance of the globe is not a symptom of their evolutionary superiority – hypothesizing that simple bacteria are evolutionarily more successful than complex humans (Gould, 1989) (for a related argument, see Davis, 1996). In short, evolution has no built-in directionality – although emergent directionality through co-evolutionary interactions is possible or even likely. While the debate about whether evolutionary fitness is correlated with trends toward complexity continues in Biology (cf. Conway-Morris, 2006), current consensus is that evolution is characterized by many branching paths, rather than a teleological sequence of stages. Gould likens evolution to a labyrinthine pathway, akin to a 'bush' of multiple, co-existing variation, rather than a teleological sequence (Gould, 1996).⁷

In this alternative view, development is the unfolding of the potential immanent in an organism's genes, shaped by the environment in which it finds itself (necessarily including interspecies interaction). Whereas teleological accounts of evolution stress a predictable, common development trajectory, with less fit species giving way to fitter ones, these alternative non-teleological accounts are more akin to the dynamics associated with complexity theory, with its path dependencies, bifurcations and unpredictabilities. Richard Norgaard pinpoints an important difference between these two biological narratives of development:

With more emphasis on coevolutionary processes, the directionality of evolution is no longer determined by a steady advance toward perfect fitness

with an unchanging environment. Species are no longer thought to get better and better at anything. And . . . changes in the physical environment are important explanatory variables in evolutionary history. (Norgaard, 1994: 84)

Recognizing that species co-evolve with their environment is central, then, to non-teleological conceptualizations of evolution.

Interestingly, this is not the position favored by Diamond in his world historical narratives. *Guns, Germs and Steel* treats nature as a relatively fixed forcing factor, rather than as co-evolving with society. ‘Geography’ thus is largely ‘out there’, driven by its own biophysical logics, with global patterns whose pace of change can be neglected within the timeframe of human life. Notwithstanding his concern, in *Collapse*, with human-induced environmental change, his comparative place-based case studies are deployed to illustrate what are presented as a common Malthusian environmental dilemma. While he values the variegated indigenous practices that he encountered during his fieldwork in New Guinea, his analysis falls back on a Eurocentric imaginary of development when it comes to places with which he is less familiar (Diamond, 2005).⁴

Indeed, as detailed below, Diamond follows mainstream economists in emphasizing economic interactions (i.e. trade) as a positive relationship (‘friendly trade partners’) enabling development for all places, whereas negative relationships are equated with the political (‘hostile neighbors’). When he conceptualizes conditions of possibility as rooted in place, arguing that success or failure is a choice that societies make, he also adopts the methodological territorialism and voluntarism common in economics (Diamond, 2005). Deploying this geographical imaginary has consequences. It directs attention away from societal causes of uneven development. When nature is conceived of as external and governed by natural laws, it is easy to romanticize it as something pure that humans sully at their peril, and to see humans as constrained by immutable laws – not least of which are those of ‘human nature’, as in Adam Smith’s invocation of ‘a certain propensity in human nature . . . to truck, barter, and exchange’

(Smith, 1776: I.2.1–2). Diamond’s resonance with mainstream economic thinking about development reflects a long tradition of interchange between the two disciplines. Darwin’s own formulation of evolution as being driven by competition, ‘survival of the fittest’, was influenced by his extensive reading in British political economy (particularly Malthus and Smith), and these trajectories of thought remain connected (Hodgson, 2002).⁸

In Economics, teleological accounts of development, as a common series of stages that societies must go through, dominate the mainstream canon.⁹ Rostow’s thesis that all societies follow the USA through a series of stages from ‘traditional’ to ‘beyond mass consumption’ capitalism, his self-styled ‘non communist manifesto’, remains influential (Rostow, 1960). Indeed Sachs explicitly adopts Rostow’s position, and its implication that US-style capitalism is the best available model for economic development, with the implication that other ways of organizing economic systems are inferior and should be abandoned. Sachs notes that he has learned from the immense difficulties that ensued from implementing this imaginary through ‘shock therapy’ for transitioning state socialism into capitalism in the former Soviet Union. He now argues that local conditions can result in very different trajectories from those predicted by free market proponents. Thus the ‘prison of geography’ requires supranational intervention into markets, so that the global playing field can be leveled and competitive capitalism can realize its potential as the ubiquitous tide of development that will lift all boats. Nevertheless, the laws of mainstream economics are invoked to justify a Rostowian imaginary, with shock therapy remaining a valuable tool in the right circumstances, including China (Sachs, 2005: 160).

Notably absent from both accounts is any attention to enduring consequences stemming from the geo-historical legacies of colonialism. Both Sachs and Diamond recognize the negative effects of colonialism at the time, but its ongoing significance as a cause of contemporary impoverishment in the global South is brushed aside. It is, at best, an intervening factor between natural geographies and development. As noted above, in this view, the division of the world into colonizers and the colonized

was itself in good part a consequence of the natural disadvantages of tropical and distant places. Colonialism may have enhanced contemporary impoverishment across Asia, Africa and Latin America, but is not an 'ultimate cause' (Acemoglu et al., 2002, 2003). It is seen as having little relevance in a contemporary world of sovereign nation states, accorded the autonomy, and responsibility, to make choices that will determine their residents' well-being (methodological nationalism).

'Second' nature, space and geographical economics

Recognizing that an important factor shaping how development is imagined in Diamond's and Sachs' accounts of geography and global development is their reliance on first nature, it is important to interrogate the consequences of abandoning this inevitably somewhat determinist account. Second nature, the view that nature co-evolves with, partially constituted through and inseparable from, societal change (hybrid, or more-than-human geographies; cf. Whatmore, 2001), is a far more adequate conception of nature-society relations. Thus it can be readily pointed out that Sachs' principal surrogates of 'geographical' disadvantage, the geographical distribution of malaria (for tropicality) and access to navigable waters, are themselves continually shaped by societal change (the elimination of malaria from subtropical regions of the first world; the colonial geopolitics of transportation systems, navigational improvements and national boundaries). Gaza's temperate and coastal location has hardly been a source of prosperity.

This does not mean, of course, that biophysical processes are irrelevant: temperate climates are better suited for producing grain-based annual agricultural surpluses, third world environmental health problems like malaria receive inadequate attention, and tropical conditions pose very specific conditions that local agricultural knowledge and practices, and cultural norms, have found ways to address (Sheppard et al., 2009a). Nevertheless, recognizing more-than-human geographies implies, in technical terms, that Sachs' and others

economists' statistical models are mis-specified; they fail to account for such reciprocal causal effects by treating 'geography' as exogenous.

By contrast, geographical economists see themselves as incorporating second nature into their analysis. Krugman's paradigmatic neoclassical explanations of why spatial economic structures emerge from a homogeneous geographical backcloth, paralleling the morphogenetic accounts of 1960s location theory on an isotropic plain, are framed in terms of second nature (Krugman, 1993).¹⁰ This is by far the more popular approach among mainstream economists, who see Sachs as tackling the much easier and more mundane task of explaining why geographical inequality begets economic inequality. Utilizing Dixit-Stiglitz mathematical models of monopolistic competition superimposed on a 'flat' world with no locational advantage (e.g. two locations as either end of a line, or points equally separated around a circle), Krugman and his followers show that there are plausible equilibrium outcomes in which some places specialize as industrial clusters whereas others remain agricultural. These have been described as north-south models by analogy to a (once) industrialized global North versus an agricultural global South (Krugman and Venables, 1995). The only uncertainty is which places become industrial: several equilibrium outcomes are possible, depending on small initial differences.¹¹

To précis what is a finely tuned argument, industrial agglomeration happens when transport costs are neither too high nor too low. This theoretical deduction has been applied directly to explaining the long historical geography of global development, as transport costs fall (Baldwin, 2006; Crafts and Venables, 2001; Venables, 2006). According to this narrative, when transport costs were high, there was no specialization. As they fell in the 17th and 18th centuries, during 'globalization 1', specialization became the stable equilibrium outcome. Richard Baldwin puts it this way: 'as history would have it, the North won at the South's expense' (Baldwin, 2006: 13). In this formulation, either region might have 'won' during this period, but for some historical contingencies shaping the equilibrium outcome (Sachs and Diamond stress 'geography'). Now, after

a 'counter-globalization' interregnum between 1929 and 1945, 'globalization 2' has unleashed a combination of further falling communications costs and spatially disaggregated global production networks, with transport costs falling to the point where regional specialization no longer pays. This is why, it is argued, we are currently experiencing the (re)industrialization of the global South, presumably until industrialization diffuses to all regions as the new equilibrium outcome.

This neoclassical theorization of geography, morphogenesis and global development has been repeatedly critiqued within economic geography (e.g. Martin, 1998; Plummer and Sheppard, 2006; Sheppard, 2000), and there is no space here to detail these arguments. Yet two criticisms are vital. First, notwithstanding the apparent historicism of the above account, these models presume that the world always approximates a market-clearing general equilibrium. (Even though these equilibria are notionally stable, computational experiments suggest that the internal logic breaks down when Krugman's model is in disequilibrium, making its equilibria unachievable; Fowler, 2007, 2010.) Second, while the geography of economic activities may be endogenous, its geographical backcloth is not. The exogenous backcloth of a flattened hypothetical world and exogenous transportation costs is inconsistent with contemporary economic geographical theory (Sheppard, 2000). Further, once the sociospatial dialectic is acknowledged, the capitalist space economy is characterized by the unpredictable dynamical complexity and instability described by Norgaard, rather than by equilibrium (Plummer and Sheppard, 2006).

Contemporary mainstream economic policy-oriented accounts of geography, globalization and development are dominated by Krugmanesque 'second nature' accounts, rather than Sachs' invocation of first nature. (In his entry for the *New Palgrave Encyclopedia of Economics*, Sachs persists in trying to persuade his colleagues to integrate agglomeration economics with 'physical geography'; Sachs and McCord, 2008.) Most economists seem as leery of environmental determinism as geographers have been. Thus the *2009 World Development Report* invokes second nature in its subtitle (*Reshaping*

Economic Geography), and stresses the importance of communications infrastructure development at the national and subnational scales, confining consideration of Sachs' discussion to the economic costs of a landlocked nation (Sheppard et al., 2009b). Landlockedness has become a widely discussed determinant of national economic stagnation, to which have been added such geographic measures as population size and ethnic diversity (a proxy for intranational divisiveness) (Collier, 2006, 2007; Sachs, 2005; Venables, 2006). Yet these, allegedly geographical, characteristics again are treated as largely exogenous. Thus, Austrian and Swiss success as landlocked countries is attributed to their proximity to wealthy European markets, part of a given global geography of inequality – whose emergence at the expense of African colonies (landlocked, small and ethnically diverse by dint of European boundary drawing) is not problematized. In discussions aimed at transforming global economic geographies, it seems at best paradoxical to make so much of a geography that is exogenous to the theories utilized to promulgate such transformations.

Although geographical economists differ from Sachs as to how 'geography' matters, they share two positions: that the geographic backcloth can be treated as exogenous to the economy; and that state actions may be necessary to redress the market imperfections associated with geography. Sachs argues for global interventions to compensate for 'bad geography' and level the playing field. The World Bank revisits old-style spatial Keynesian regional planning to redress spatial inequalities (Sheppard and Leitner, 2010). Venables argues that 'geography' implies that 'trade is not necessarily a force for convergence of incomes' (Venables, 2006: 74), an argument even acceptable to the inveterate free trader Douglas Irwin (2006).

Indeed, even as geographers castigate mainstream economists for endorsing neoliberalism, something quite different is underway in Economics. In his *New York Times* columns, Paul Krugman, condemned by critical geographers as the founding figure of neoclassical geographical economics, has become one of the USA's most widely read passionate critics of not only Bush-era neoliberalism, but also Obama-era

economic centrism. Beyond this, even this limited inclusion of geography into neoclassical economics undermines the viability of claims that the invisible hand of competitive capitalism is socially beneficial. As trade theorists and foreign direct investment theorists have begun adding a spatial dimension to their theories (in the form of transport costs and place-based characteristics), it has become increasingly common that their models do not result in the welfare maximizing mutual benefits commonly associated with unrestricted trade and foreign direct investment. For trade theory, general equilibrium deviates from the welfare-maximizing optimum, including scenarios where some regions and countries lose as a result of trade (cf. Behrens et al., 2007; Tharakan and Thisse, 2002; Venables and Limão, 2002). For foreign direct investment, James Markusen develops complex computable general equilibrium models in which countries lose as a result of the ability of firms to engage in unrestricted foreign direct investment (Markusen, 2002). Ottaviano and Thisse (2004) derive what they call the ‘spatial impossibility theorem’, that neoclassical competitive equilibria cannot exist in a capitalist space economy. Recognition that ‘geography’ matters, even in this rather static exogenous form, does at least have the merit of undermining conventional economic justifications for market triumphalism.¹²

Geographical economics and the question of development

Whereas geographical economists have become more cautious about market-based outcomes, this has not catalyzed any significant rethinking of teleological developmentalism. This stems from how territory and distance are treated within this framework.

First, national political borders are taken as exogenous to economic theory, and nation states are commonly presumed to be natural territorial economic units – a position that sociospatial theorists have extensively critiqued as the national territorial trap or methodological nationalism (Agnew, 1994; Brenner, 2004). It would be redundant to rehearse such critiques in detail here, but some aspects are important to underline. For these units of analysis, size does not matter: the United

States and Vanuatu are equivalent. This presumes that as soon as new nation states come into existence, as when Yugoslavia broke up, each becomes a coherent territorial economy. Theoretically, national economies are assumed to be reducible to aggregate production functions, enabling them to be analyzed using the same neoclassical tools as for individual firms, even though it is known that the marginal productivity claims associated with such functions are as logically fragile as the transformation problem associated with Marx’s labor theory of value (Harcourt, 1972; Sheppard and Barnes, 1990; Sraffa, 1960).

Methodologically, there is a strong tendency toward place-based explanations in mainstream macroeconomics: accounting for the performance of each territorial economy in terms of a series of presumed causal attributes of that territory. The regression specifications utilized in the debates about geography and development, summarized above, are of exactly this kind. This has been the case even for much mainstream statistical analysis of subnational regional economies, at least until quite recently, even though economists readily concede that these are not autonomous territorial economies (Fingleton, 2000).

Such methodological territorialism is highly problematic, as quantitative geographers long have pointed out, because it does not account for the many ways in which territorial economies are interconnected and affect one another (not to mention interscalar interrelations). It also has the specific consequence of reinforcing Rostowian stageist conceptions of development. By definition, such aspatial statistical regressions presume that all units of analysis are of the same kind. The task is to account for how a single measure of performance, such as gross national income (GNI), varies across (in this case) national territories, by identifying other attributes of those places that ‘cause’ these performance differences (causality being defined as a significant partial correlation, backed up by a theory that offers its readers a plausible rationale that predicts such a correspondence). The other attributes are regressed on a trend line measuring performance – which amounts to nothing more than a sequential ranking of national economies in terms of this measure, from worst to best (typically, the

West). This, then, represents national economic performance in terms of a single trajectory along which countries are aligned. For example, the (post) Washington Consensus has too often sought to browbeat states into adopting US and UK forms of governance. In such a place-based imaginary, territorial-scale interventions (i.e. national governance reform) become the key to catching up.

Second, notwithstanding predilections toward methodological territorialism, geographical macro-economists now take into account intercountry distance-related effects. Discussions of landlocked countries, for example, note that their performance will depend on a variety of attributes of the neighboring countries through which their imports and exports must be shipped to access the sea (Collier, 2006; Venables, 2006). Such interdependencies have not been systematically incorporated into economists' theories or empirical estimates of the relation between geography and development (but see, for example, Yamamoto, 2008). The principal exception is economists' recent reinvention of an old geographers' trick, the gravity model, to predict trade flows (Evenett and Keller, 2002; Johnston, 1976; Márquez-Ramos et al., 2007; Mitchener and Weidenmier, 2008). Again, geography is an exogenous backcloth; distance is given, a cost of doing business. Treating distance simply as a transactions cost – a barrier to the efficient operation of neoclassical markets – implies that reductions in such costs must level the economic playing field, creating a flatter world in which efficient markets can more readily realize their putative benefits. Shorter distances reduce transactions costs, benefitting all partners.¹³ The more general presumption, also adopted by Diamond, is that unfettered spatial economic interdependencies (trade, foreign direct investment, portfolio capital flows, migration), reducing transactions costs, benefit all the people and places that they connect. It follows that lower transport costs can only accelerate the progress of 'backward' territories along the path to development.

'New' development economists

As noted above, a group of prominent US mainstream 'new' development economists, writing

for broad audiences, recently have sought to distance themselves from neoliberal globalization in ways that resonate with critiques in geography and development studies.¹⁴ Their prominence in global centers of mainstream economic expertise and the broad circulation of their arguments is shaping both public discourses and policy-making norms.¹⁵ These writers' interventions have been catalyzed by the broad impact of counter-globalization social movements. Recognizing that neoliberal globalization has reinforced economic inequality, they are concerned that influential contestations of neoliberal globalization may result in a rejection of capitalist globalization *tout court* – which they feel would amount to throwing the baby out with the bathwater. In short, believing in the overall benefits of capitalist globalization, pointing to the Great Depression as an era of both counter-globalization and global economic crisis, they seek interventions that can redress its unintended negative side effects. These interventions have been discussed in detail elsewhere (Sheppard and Leitner, 2010). Here, I focus on their implications for discourses about trade and development.

Jeffrey Sachs' claim that countries are prisoners of their geography seemingly challenges the free trade doctrine, perhaps explaining why it has not received a warm reception among mainstream economists. A core theoretical claim of mainstream development economics, dating back to David Ricardo, is the opposite: free trade enables every place to take advantage of its geographical peculiarities, whatever these might be, by identifying, and specializing on the basis of, the comparative advantage associated with its place-based characteristics.¹⁶ Yet a close reading of Sachs reveals that he remains as supportive as ever of free trade (Sachs, 2005): His concern is that not all differences in comparative advantage are equal. Sachs' claim that the exigencies of geography require spatial redistribution from wealthy to poor places is a global Keynesian agenda – with his Earth Institute's Millennium Villages initiative acting as a proving ground for this argument.

As noted above, the development economist Dani Rodrik disagrees with Sachs about geography, arguing that the ultimate place-based determinant of

national economic performance is institutions. He has been battling Sachs over the question of institutions versus 'geography' via dueling econometric specifications (Rodrik et al., 2004). Yet he shares Sachs' concerns about neoliberal globalization. The son of a Turkish businessman who benefitted greatly from the policies of import substituting industrialization that came to be vilified under neoliberalism, Rodrik highlights three problems associated with globalization (Rodrik, 1997): workers are disadvantaged by free trade and investment due to their low mobility; there is a failure to acknowledge and accept national cultural preferences and norms (e.g. reluctance to purchase commodities produced under exploitive labor relations or in environmentally harmful ways); and globalization has undermined the nation state. Yet he also finds that national-scale interventions do not suffice. Thus he seeks modifications to the norms governing global trade, such as altering the WTO agreement on safeguards to enable democratic nation states to exert more territorial authority over economic flows crossing their borders, when a national consensus exists about such issues.

Sachs and Rodrik also share the same criticism of attempts under the Washington Consensus to impose ubiquitous 'best practice' neoliberalism on all countries, because this fails to take context into account. Citing the influence of his spouse, a medical doctor, Sachs argues for a 'clinical' approach to economic policy-making, one that defines the healthy economic body in terms of a set of performance indicators, which become the goal that differentiated policy interventions, tailored to the national patient, are designed to realize. Rodrik argues for policy prescriptions tailored to national circumstances. Yet both believe in a single set of (neoclassical) 'laws of economics', to be drawn on in developing differentiated policy prescriptions. Rodrik dubs this *One Economics, Many Recipes* (Rodrik, 2007).

Joseph Stiglitz has been the most vocal mainstream critic of the Washington Consensus (Stiglitz, 2002, 2006; Stiglitz and Charlton, 2005). He received the Nobel Medal for theorizing that information asymmetry undermines the effectiveness of markets, and his service as chief economist for the

World Bank (1997–2000) reinforced this belief. He has castigated the multilateral post-Bretton Woods institutions for their lack of transparency: for making decisions behind closed doors, even as they penalized third world governments for the same lack of transparency (Stiglitz, 2002). He observes that power inequities in the institutions governing the world economy hurt the global South, urging reform on the WTO to redress this. He argues against structural adjustment and biopiracy, and for policies promoting global equity, forgiving national debts and stimulating aggregate demand in the global South. Countries with 'a proven track record' (p. 242) should be given financial aid and the freedom to decide how to use it, instead of being told what to do.

Yet he still believes that fairer trade, achievable by reforming the WTO to eliminate its current de facto bias in favor of the global North, can promote development (Stiglitz and Charlton, 2005). Noting the lack of realism in mainstream trade theory, he and Charlton urge that richer countries be forced to guarantee open access to imports from poorer countries, while poorer countries are accorded the right to restrict imports from richer countries. The Generalized System of Preferences should be adjusted to favor the global South, and the WTO should stay away from promoting unrestricted international capital flows and property rights agreements, such as TRIPS, that favor the global North. Diagnosing a democratic deficit within the WTO (abuse of the market through control over information), he advocates global Keynesianism: tipping the playing field in favor of the global South; enforcing transparency and accountability on institutions that are not subject to democratic control; paying poor countries for the full value of their primary commodity exports and for ecological services they provide to the global system; global rules to prevent corporations from playing one territory off against another and to reduce monopoly power; unconditional debt forgiveness for countries by allowing them to declare bankruptcy; and a global bank that lends to those in need (Keynes' unsuccessful proposal during the Bretton Woods negotiations) (Stiglitz, 2006).

Notwithstanding significant disagreements, Sachs, Rodrik and Stiglitz share the view that the

rollback of the state promulgated under neoliberal globalization has gone too far, catalyzing a concentration of wealth in the hands of global elites, impoverishment, theft of intellectual property and environmental degradation, and catalyzing worldwide social resistance. Their explicit promotion of Keynesian alternatives, at national and global scales, directly challenges neoliberalism. Indeed, in the aftershocks of the 2008 financial crisis discourses about the need for a new New Deal and a new Bretton Woods have become commonplace. Friedrich von Hayek, Milton Friedman, Margaret Thatcher and Ronald Reagan should be rolling in their graves.

Yet William Easterly and Hernando de Soto, while sharing the others' criticisms of the failure of the Washington Consensus, would beg to differ: they argue that Hayek was right. Easterly, a former senior research economist for the World Bank (1985–2001) and participant in the 'geography' versus institutions debate, agrees that the international financial institutions have failed the global South's poor, but reserves just as much ire for Sachs and Keynesian do-gooders of all stripes, as no different than Robert Owens and his 19th-century utopian fellow travelers. He divides the world into planners (Owens, Sachs, the World Bank, etc.) and seekers (the entrepreneurial spirit in us all). In his view, global development policies of all kinds (including the 'Global War on Terror') are Big Push initiatives that are doomed to fail, and infused with the conceit that the global North holds all the answers. 'The White Man's Burden emerged from the West's self-pleasing fantasy that "we" were the chosen ones to save the Rest . . . The Enlightenment saw the Rest as a blank slate – without any meaningful history or institutions of its own – upon which the West could inscribe its superior ideals' (Easterly, 2006: 23).

If Easterly seems to be channeling Edward Said's *Orientalism* or Eric Wolf's *Europe and the People without History* (Said, 1978; Wolf, 1982), he lies much closer to Edmund Burke, the 19th-century English conservative who criticized liberalism for its duplicitous policies toward colonial India. Burke critiqued liberals for trampling on the individual rights of Indians in their zeal to remake them in liberals' own image, destroying rich local cultures in the process (Mehta, 1999; Muthu, 2003;

Pitts, 2005). (Free trader Richard Cobden's anti-imperialism also comes to mind.) Like Sachs, Diamond, Rodrik and Stiglitz, Easterly sees all humans as equally able and creative, with the poor unable to make good on their capabilities. Yet, citing Hayek, he believes that only the free market ('the laws of economics'; Easterly, 2002) can provide the incentives, attentive to local context, that can unfetter the potential of the poor to succeed as capitalist entrepreneurs – who thereby become responsible for their success, or failure. As in trade theory, the capitalist market is conceptualized as recognizing and valuing difference, as a mark of distinction that can be traded on for mutual benefit and profit (Sheppard and Leitner, 2010).

The Peruvian economist Hernando de Soto similarly places his faith in the entrepreneurial acumen of the poorest of the poor. De Soto, credited with converting Peruvian president Alberto Fujimori from Keynesianism to neoliberalism, directs the Institute for Liberty and Democracy (recipient of awards, inter alia, from the Cato Institute and *The Economist*).¹⁷ He sees poorly demarcated property rights as the principal cause of poverty. This is because the homes and businesses of the poor are not legally registered in their own names, and processes of registration are enormously time-consuming, bureaucratic and costly. He argues that the principal source of capital for small entrepreneurs is self-finance, from the equity accumulated in their homes and businesses. The poor in the global South, living in squatter settlements and working in the informal economy, cannot take advantage of such potential sources of capital (which he estimates as being worth over US\$9 trillion worldwide; de Soto, 2000). He argues that the United States experienced the same situation in the late 18th century but was able to overcome it, and should be taken as a model for the global South to follow in order to move from a 'pre-capitalist' to a 'capitalist' property system (de Soto, 2000: 172).

Hayek versus Keynes? Temporality, non-ergodicity and capitalist development

Critical scholarship recently has highlighted the differences separating Keynesian Fordism from

Hayekian neoliberalism, even exhibiting nostalgia for the good old days when Keynesian discourses were hegemonic by comparison to the more brutal 'there is no alternative' era of neoliberalism. These are vital differences of opinion about how capitalism can bring prosperity to all, whose instantiation as development policy prescriptions has had enormous impact on the livelihood possibilities of people in places across the global South. Their ongoing contestation, as described above, remains of enormous import.¹⁸ Yet these are differences about *how* capitalism can bring prosperity, not *whether* it can.

Notwithstanding severe personal, intellectual and political differences, the last of which might be summarized as neoliberalism versus progressive liberalism, both Hayek and Keynes had little patience for the deterministic mathematical equilibrium theories based on microfoundational rational choice models – the hard core of mainstream economics. They both argued that time itself is a radical destabilizing factor, because of irreducible uncertainty about the future. Hayek, the anti-rationalist, believed that knowledge emerges from actions, themselves rooted in habit and tradition, not from our ability to discern how the world works. The only way for rationality to emerge from the habitual nature of everyday behavior, he believed, was through the discipline of competitive markets. This would have the important side effect, for him, of equating social efficacy with individual liberty (Hayek, 1937, 1948). 'In arguing that competition breeds rationality, Hayek is claiming that the filter of profit and loss weeds out those whose habits tend to generate inappropriate responses to market signals' (Butos and Kopl, 1997: 351).¹⁹

Keynes, the rationalist, saw human action as plagued by a radical uncertainty about the future (perhaps never more so than at present), which encourages speculation. 'In such a world action cannot be rational; it must spring from an irrational source, animal spirits ... A Cartesian rationalist may be glad for the impulse to action that animal spirits provide, but he cannot have much faith that the actions so motivated will very often turn out as intended' (Butos and Kopl, 1997: 349). Here, markets cannot provide the necessary information,

inducing individuals to hoard money (dubbed their liquidity preference) in times of uncertainty. This in turn requires state-led demand-side macroeconomic intervention to alleviate unemployment in times of crisis (Keynes, 1936; Weatherson, 2002). Such socialization of investment, Keynes wrote, was not devised as 'a terrific encroachment on individualism, [but], on the contrary ... as the only practicable means of avoiding the destruction of existing economic forms [that is, capitalism] in their entirety and as a condition of successful functioning of individual initiative' (Keynes, 1936: 380).

The Nobel Medal winning American economic historian Douglass North has taken up the question of the relation between irreducible uncertainty and capitalist development, arguing that this must be addressed in any historical account of economic change that is to remain faithful to the laws of economics. 'The study of economic change must ... begin with the ubiquitous efforts of human beings to deal with and confront uncertainty in a non-ergodic world' (North, 2005: 5).²⁰ In his conception, individuals' actions are founded in belief systems, requiring (cf. Hayek, 1952) 'that we delve into how the mind and brain work' (p. 5), and take place within particular national institutional contexts. Individual agents face two kinds of uncertainty (natural, and socially constructed) in their environments. Historically, individuals residing in territorial societies develop institutions (e.g. cultural systems, risk markets and governance structures) to manage the uncertainties they confront (many of which are a consequence of humans and their institutions). His overriding conclusion is that national economies succeed or fail, engendering wealth or poverty for their residents, depending on their ability to develop effective institutions to manage the real-world uncertainties plaguing markets.

By taking temporality seriously, as an unknowable future rather than an equilibrium trajectory, Hayek, Keynes and North pose serious challenges to the adequacy of microfoundational models of the economy. At the same time, however, they share the mainstream paradigm's predilection for grounding economic theory in the choices of autonomous individual agents, its faith in a monistic (capitalist) economics, and its conviction that spatiality is a

relatively minor complication. The fact that the spatial extent of economic systems enhances agents' uncertainty is acknowledged, but is not seen as undermining the capacity of markets, in principle, to be socially beneficial. Like the neoclassical mainstream, spatiality is conceptualized in terms of the location in which individuals find themselves (shaping their endowments, opportunities, preferences and culture). Keynes and North combined these with methodological nationalism: macro-scale features of the economy, and of the institutions governing it, are equated with national territories, taken as the natural units of analysis for the study of development.

Even for a non-ergodic world, these arguments mobilize a teleological conceptualization of development. When North asks why Europe becomes the center of capitalism after 1492, his answer is in terms of attributes of Europe that, in his view, make it better suited to developing capitalist governance systems to manage uncertainty (North, 2005): individualist belief systems that can underwrite 'impersonal exchange' (which he contrasts with Islamic collective action and Soviet collectivism), themselves rooted in 'fundamental demographic/resource constraints that became embodied in religions' (p. 136), combined with a fractured European geography of small territorial economies that enabled competition between different institutional and cultural assemblages. 'The failures of the most likely candidates, China and Islam, point the direction of our inquiry. Centralized political control limits the options ... The lack of large-scale political and economic order created the essential environment hospitable to economic growth and ultimately human freedoms' (p. 137). North concludes: 'Growth has been generated when the economy has provided institutional incentives to undertake productivity-raising activities such as the Dutch undertook. Decline has resulted from disincentives to engage in productive activity as a result of centralized political control of the economy and monopoly privileges' (p. 134).

North's arguments are, thus, remarkably similar to those of the modernization theorists of 40 years ago, who generalized Rostow's teleological economic model to incorporate sociological and psychological aspects (cf. McClelland, 1961; Parsons, 1966): 'the

richer the cultural context in terms of providing multiple experimentation and creative competition, the more likely the successful survival of the society' (North, 2005: 36). Like modernization theorists, North makes three arguments: that northwestern European cultural and institutional contexts are richer than others (at least in terms of their capacities for managing economic uncertainty); that the prosperity of these societies is evidence of their superior cultural/institutional mix; and thus that other societies should emulate this mix if they wish to succeed. Such arguments have been extensively criticized for their unwarranted structural functionalism (the assertion that the presence of certain attributes in places deemed to be successful suffices to prove that these factors are necessary for success); for their neglect of the asymmetrical relational connections between places that may be every bit as important in causing uneven development as territorial attributes; and for their Eurocentrism (e.g. Blaut, 2000). They are, again, rooted in methodological nationalism.

Sociospatial ontologies and development imaginaries

In the three preceding sections, I have examined the contrasting views of different overlapping groups of economists on the question of economics, nature, geography and development. I have noted substantial disagreements about the importance of first versus second nature, the relative importance of institutions and 'geography', and the merits of Keynesian versus Hayekian prescriptions. Nevertheless, these disagreements orbit fairly tightly around a shared belief in the capacity, in principle, of democratic capitalism, US-style, to solve poverty and bring development to all. In this section, I explore how the sociospatial ontology of mainstream economics contributes to this capacity for consensus on the question of development, and contrast this with the quite different development imaginaries that emanate from Anglophone geographical political economy.

The view from Economics

Notwithstanding the potential diversity of Economics, I explore here the hegemonic mainstream perspective.

This has produced the most effective and cohesive paradigm in Anglophone social science of the last century. Imré Lakatos argues that every scientific epistemological community constitutes its research program through the articulation and defense of a set of ‘hard-core’ propositions that should not be questioned, surrounded by a protective belt of ‘auxiliary hypotheses’ that protect this core from being falsified (Lakatos, 1970), and mainstream economists have mastered this. Even what seem to outsiders to be relatively minor deviations within Economics are marginalized by the mainstream’s proponents as ‘heterodox’. Practitioners of such heresies find themselves largely excluded from the canonical journals and departments. Indeed, some have concluded that the mainstream view is simply autistic about such alternatives (<http://www.paecon.net>). The hegemony of this epistemological community during the past century also has had the effect of constituting the world through the enactment of its laws, with the effect of making their plausibility seem self-evident (Mitchell, 2005a).

As conceived within this tradition, the laws of economics are, first, deemed to be ubiquitously applicable, across space and time. Second, they separate the economic from other aspects of socionature. Indeed, some proponents claim that these laws apply to all domains of human action including our relationship with nature (consider, for example, the current popularity of carbon markets) (Fine and Milonakis, 2009). Third, they are grounded in mathematical languages that enhance their status as seemingly scientific. Fourth, they constitute a development imaginary in which the progress of nations is judged by whether and how they deviate from practicing these laws.

The social ontology underlying this shared belief is well known, but its spatiotemporality has received less attention. The social ontology has the following characteristics. The economy is composed of individuals of more-or-less equivalent social capacities, differing in preferences and endowments (usually taken as exogenous to the economy). Markets function as a result of more-or-less well-informed individuals making self-interested choices to buy and sell. Markets are assumed to clear, placing the economy in a neoclassical equilibrium that is argued

to function like Adam Smith’s invisible hand: ‘It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love’ (Smith, 1776: I.ii.2).

There is considerable contemporary debate about the cognitive and even neural aspects of choice-making, about optimizing versus satisficing choices, and about limited information and uncertainty, but these are considered undesirable deviations from a rationally ordered and socially efficacious capitalist space-economy – deviations that should be fixed with a dose of ‘libertarian paternalism’ (Thaler and Sunstein, 2003). Rationality is to be defended at all costs. The rationality of this ontology of capitalism rests on the question of how often individuals actually achieve the intended consequences of their choices through the operation of the market. If this were rare, there would be little reason for individuals to repeat such actions; indeed, the very rationality of choice making would be called into doubt. To doubt the economic rationality of choice-based behavior, then, would be to call the entire set of hard-core propositions into question.

The spatiotemporal ontology accompanying, and reproduced through, this model of capitalism helps reign in the possibility of unintended consequences – at least within its own theoretical confines. One scale dominates: that of the human body. Adopting the principle of methodological individualism, economic processes are reduced to the rational, perfectly informed, self-interested and autonomous choices of individuals (themselves often reduced to ideal types known as representative agents). Without such ‘microfoundations’, a theoretical model has little chance of gaining respect in contemporary mainstream economics – even in network economics where a relational model of human action is now popular. Individual actions in turn are aggregated into territorialized macroeconomic objects (e.g. aggregate production functions, or factor endowments), which are assumed to describe adequately the dynamics of urban, regional and (most commonly) national economies. Each scalar territorial entity is treated as a bounded and homogeneous unit of analysis. Scalar units are given

a priori, and linked together through a bottom-up causal logic, beginning with the individual, that conforms with hierarchy theory in Ecology: objects at any scale are mobilized by actions emanating from smaller scales and constrained by events operating at larger scales (Wu, 1999).

Geographical detail is attached to this scalar ontology as a fixed set of attributes characterizing each scaled unit of analysis (body, region, nation) – a naturalized geography. This set includes place-based attributes (resources, climate, culture, etc.), and relative location (accessibility to other such units, measured on the basis of given communications geographies). If geographical difference creates unequal opportunities, it constitutes a tilted ‘playing field’ on which some actors cannot achieve economic welfare through their individual actions. This would challenge the rationality of microfoundations and thereby the hard-core principles. If such attributes can be commodified, however, as utility functions driving preferences, or as resource endowments driving comparative advantage, then the possibility remains that the market can modulate such differences through the rational choices of its participants (Sheppard and Leitner, 2010).

For most mainstream theorists, this bottom-up, multiscale and methodologically territorial spatiality is combined with a particular (a)temporality: the economy is assumed to approximate a market-clearing equilibrium. Much mainstream economic theory is static, with dynamics typically treated in one of two ways. One approach assumes that the economy is always approximately in equilibrium, with the details of that equilibrium depending on the context: Baldwin’s account of globalization exemplifies this. Here, dynamism is an attribute of the context rather than the economic theory. Alternatively, it is assumed that the economy moves smoothly along a dynamic equilibrium ‘golden’ growth path, where current production exactly matches future demand (clearing the market over time). In such equilibrium models, time is reversible: a shifting parameter rather than an evolutionary historical force. Unintended consequences are less likely and rationality still can rule.²¹

As noted above, economists who stress the irreducible nature of uncertainty are a notable

exception to this minimalist incorporation of temporality – including Hayek and Keynes. A non-ergodic world poses deep problems for those seeking to defend the rationality of a microfoundational approach. When the future is not simply unknowable but plagued with unpredictable twists and turns, how can humans, or even economists, retain faith in their capacity to know and act on the world (Rosser, 2004)? Even here, however, it seems possible to rescue the possibility of rationality, and of a teleological path for capitalist development, as long as the other ontological features are preserved.

Mainstream economics’ development imaginary. Taken together, methodological individualism, naturalized geographies and methodological territorialism underwrite the teleological, neocolonial development imaginary that Rostow pioneered. Within this ontology, aided by a Walrasian auctioneer, capitalism becomes a benevolent and harmonious mechanism of market clearance, in which all participants are equally positioned and empowered to realize their preferences.²² Its ubiquitous principles promise to bring economic prosperity to all. In this imaginary, to be developed is to achieve high levels of median gross national income and the like, which immanent capitalist accumulation is imagined to make possible.²³ A crucial implication of this teleology is that failure to achieve prosperity can be attributed to characteristics of people and places that prevent the market from achieving its potential: to bad latitude, bad attitude (Hart, 2002) or poor governance.

Geography plays a relatively minor role, in the form of place-based characteristics – variations in local context (e.g. endowments, traditions of state-market relations, cultural norms, and geographical advantage).²⁴ Attending to these is acknowledged as crucial to making the appropriate intervention, but the goal of accelerating capitalist accumulation and growth remains the same (Rodrik, 2007). Jim Blaut has dubbed this developmental imaginary ‘diffusionism’: development simply diffuses from advanced to backward countries (Blaut, 1987, 1993). Countries are ranked, then, by how far they have progressed along the path to prosperity, constructing what Dipesh Chakrabarty calls ‘History 1’ (Chakrabarty, 2000) – a historical narrative that

represents the developmental histories of western Europe and North America as the norm against which all are to be judged (and most found wanting).

Crucially, this imaginary locates expertise about development within the global North; those people and places that have prospered are positioned to show others the way. Cowen and Shenton distinguish between immanent and intentional development: that is, between development as an emergent process and strategic efforts to create development (Cowen and Shenton, 1996). (Gillian Hart, 2001, dubs these 'development' and 'Development'.) Within this imaginary, the path of immanent development is given, and a model that wealthy regions draw on to bring intentional development to others. Intentional development becomes necessary when immanent development possibilities are blocked. Developed countries' expertise is necessary to open such blockages, as their own prosperity confirms their successful experience in solving development problems. As both Blaut and Chakrabarty note, this constitutes a Eurocentric development imaginary.

Yet the principles invoked for intended development have proven far from successful. Notwithstanding multiple experiments with different territorial models of governance – spatiotemporally variegated capitalisms that articulate with different local visions of state-market relations and shifting global policy discourses (Brenner, 2004; Peck and Theodore, 2007) – there has been serial policy failure. Neither state-led development nor structural adjustment have been particularly successful in accelerating many countries along the development path. Nevertheless, the hegemony of this geographical imaginary has meant that such serial failures have not seriously undermined the global North's claims to expertise, even as its experts periodically reverse their views about which principles are appropriate (Sheppard and Leitner, 2010). Diffusionism implies that there are no alternatives to what development means or how to achieve it – no legitimate contestations.

The view from Geography

If thinking in Economics can readily be simplified to a hegemonic mainstream view, this is far from the

case in our anti-canonical discipline. Economic geography includes a group of scholars who hew more closely to mainstream economic thinking, but currently is dominated by Anglophone geographical political economy (Sheppard, 2011a). Even this is a very diverse body of knowledge rife with philosophical, theoretical and methodological disagreement (Sheppard and Barnes, 2000). Yet, connecting across this diversity, it can be characterized by a very different sociospatial ontology from that of geographical and development economics, with room for alternative development imaginaries.²⁵

In contrast to the Cartesian ontology of mainstream geographical economics (individuals and territories as hermetic objects of analysis; spacetime as exogenous coordinates), geographical political economists tendentially favor a relational, or dialectical, sociospatial ontology.²⁶ This is so in at least three senses. First, it attends to the co-constitution of society, spacetime and the more-than-human world. Second, it takes a dialectical approach to theorizing the agents and territories of a capitalist space economy. Third, it stresses how economic and non-economic aspects of the social world (identity, politics, culture, etc.) are co-implicated.

It is in the domain of theorizing economic actions that economic geography can be most immediately compared to the economic mainstream, since this is where the mainstream focuses. Indeed, some scholarship in geographical political economy has made the comparison as straightforward as possible through deployment of the mathematical language of theory that economists so value. Summarizing a substantial body of such research (in heterodox economics and economic geography), its focus is on the production of commodities, not market exchange. This entails, first, taking temporality seriously. Markets, as places of instantaneous equilibrating exchange, are replaced by places of production, a process that takes time: the timelag between advancing capital to finance production and the anticipated recuperation (realization) of profits is crucial to profitability.

Second, it conceptualizes economic actors in terms of their positionality within economic processes (shaped by class, gender, location, etc.)

rather than simply as rational autonomous agents. Positionality conceptualizes agents in terms of their differently empowered interrelations, instead of imagining that they are autonomous agents with given endowments and preferences. Third, geographical research takes seriously the shifting connections between firms in a sector and between sectors, including the transportation sector – connections shaped by prevailing technological interdependencies, labor relations and transportation costs. Even without the complications of geography, such a shift in perspective raises serious questions about mainstream macroeconomics (e.g. whether factor prices reflect their marginal productivity or their bearers' political power: Harcourt, 1972; Sraffa, 1960), and confirms Marx's thesis of exploitation.²⁷

This scholarship confirms Marx's intuition that a capitalist economy is generative of social inequality and typically far from equilibrium, with different alignments of agents struggling over the disposition of the economic surplus (Harvey, 1982; Pasinetti, 1981; Roemer, 1981, 1982; Sheppard and Barnes, 1990; Webber and Rigby, 1996). While market-clearing equilibria may emerge as significant orientation points for the dynamics of capitalism, the individual and collective actions of agents generally keep the economy far from such equilibria, with the very real possibility that agents cannot realize the intentions behind their seemingly rational, self-interested choices (Bergmann et al., 2009).

Incorporating the co-constitution or production of spacetime and the more-than-human world further muddies Panglossian mainstream representations of capitalism. Distance is no longer simply a cost of doing business, but is produced by transportation and communications firms shaping how places are connected – firms that commodify space, reshaping accessibility. Production technologies differ across sectors, and regions (cf. Rigby and Essletzbichler, 1997). Places cannot be captured in terms of given attributes or endowments, since their characteristics, and sociospatial positionality, are continually in flux. The uncertainties faced by commodity producers, seeking to realize profits on the capital advanced, are compounded by the difficulties of obtaining inputs from distant suppliers, of having to move commodities from places of

production to those of consumption, of anticipating consumer demand in other places, and of plugging into complex and shifting geographies of finance. Geographers stress the importance of recognizing that geographies are produced through socio-economic processes, if social theory is to avoid spatial fetishism (Sheppard, 1990). Yet it is equally important to recognize that produced geographies have their own distinct effects on socio-economic processes: society shapes geography, and geography shapes society (Plummer and Sheppard, 2006). Attempts to commodify the more-than-human world (e.g. through accumulation by dispossession and ecological markets) are further plagued by the biophysical processes shaping the material world – processes that capitalists seek to align with capitalism via commodification, albeit incompletely and often unsuccessfully.²⁸

Once space and 'nature' are endogenized into theories of capitalism, the dynamics of capital accumulation cannot be reduced to the microfoundations of geographical economics.

Economic actors are neither fully rational nor autonomous. Their interests and preferences are shaped by their sociospatial position, their knowledge is imperfect, and they engage in collective action. Their actions shape, but also are shaped by, the social structures and cultural context in which they find themselves. As Marx quipped, they make the world, but not a world of their own choosing. (Plummer and Sheppard, 2006: 622)

It becomes that much harder for agents to select actions whose consequences can be foreseen, or can be expected (with much confidence) to realize their intended goals, undermining the rationality of a capitalist space economy grounded in the self-interested actions of its agents. Further, uneven geographical development is the order of the day, with some places realizing prosperity at the expense of impoverishment elsewhere (the development of underdevelopment, cf. Frank, 1978; Harvey, 1982, 2005; Smith, 1984).

Over the past decade, drawing on cognate scholarship in feminist studies, cultural studies, post-prefixed philosophy, anthropology, economic sociology and political science, economic geographers have demonstrated that 'economic' processes

cannot be examined separately from, or prior to, more-than-economic processes (conventionally labeled as cultural, social and political) that they are bound up with (cf. Barnes, 1996; Gibson-Graham, 1996; Grabher, 2006; Lee, 2006; McDowell, 1997; Thrift, 2005; Wright, 2006). Rather, each is co-constitutive of the others. Consider, for example, 'culture' – an enduring problematic of development. The most mundane economic practices – indeed the very definition of what counts as economic – are shaped by, as well as shaping, cultural norms, discourses and subject formation. Such practices should be conceptualized in terms of how the situated imaginaries, knowledges and interests of differently positioned and unequally empowered agents give meaning to and shape economic practices. Beyond this, such practices inevitably express the situated identities of their practitioners, performatively reproducing and challenging these – a process that Judith Butler (1990) dubs citation. Geographers' contributions to making sense of these interminglings, and the complex assemblages that they bring forth, have particularly focused on the multi-valent spatialities of positionality, and social and political norms, and how these are co-implicated with those of economic processes. Such complexities are not reducible to rational microfoundations or mathematical theorems, although mathematical modeling can help make their implications more precise (Bergmann et al., 2009).

The development imaginaries of geographical political economy. Geographical political economy, the bare contours of which are sketched above, creates space for alternative development imaginaries. By contrast to the teleological model of capitalist development associated with mainstream Economics' sociospatial ontology, a relational/dialectical ontology envisions no such diffusion of immanent development from north to south. Even deploying such conventional conceptions of development as economic prosperity, very different conclusions are arrived at as to the conditions of possibility for achieving this. In this view, capitalism engenders sociospatial inequality. Differences in sociospatial positionality, a historical legacy of social hierarchies and geopolitical power inequalities mediated

through shifting geographies, tendentially reproduce such inequalities, notwithstanding periodic spatial restructuring (Sheppard, 2002). The fact that this most recent phase of rapid, neoliberal globalization, like that of the 19th century, has been accompanied by persistent and intensifying sociospatial inequalities, culminating in the current global crisis, provides prima facie evidence supporting this claim (Milanovic, 2005; Obstfeld and Taylor, 2004; Williamson, 2005).

Departing from Eurocentric territorial accounts yoked to History 1, a relational/dialectical view stresses sociospatial positionality, not European-ness, as the catalyst for western Europe's capitalist prosperity. Diamond, Sachs and North explain European prosperity in terms of northwestern European territorial attributes (climate, topography, politics, culture, religion). Such explanations cannot adequately account for the 'great divergence' between Europe and eastern and southern Asia after 1492 – after which wealth and economic momentum rapidly moved from one side of the old world to the other (Abu-Lughod, 1991; Blaut, 1993; Pomeranz, 2000). Methodological territorial explanations overlook a key relational advantage that Europe possessed: the good fortune of comparatively easy access to the Americas. This 'new world' proved readily exploitable for resources, land, gold and silver, its plantations became a proving ground for factory labor practices, and the production of cheap sugar, coffee and cotton could be organized for European markets (Blaut, 1993).

European contact with the Americas profoundly altered the more-than-human world, in ways that particularly benefitted Europe. This Columbian exchange (Merchant, 1989) brought European viruses to the Americas, where American indigenous socio-ecological complexes were replaced by European agricultural practices and species. In Europe, diets improved, food and labor costs fell, factory technologies were catalyzed, and the money supply and profit rates increased. In the Americas, depopulation and the depredations and displacements of colonialism undermined indigenous livelihood practices (and military power), creating widespread impoverishment and further opening the

territories to the settlement of surplus European populations. Here, geographical inequalities are explained as a consequence of socionatural relations, connecting places in ways that tendentially benefit certain places and social groups at the expense of others, rather than in terms of territorial differences in natural endowments.

More generally, a relational/dialectical ontology stresses how the economic conditions in a territory depend as much on its shifting connectivities with other territories as on place-based attributes. Connectivities also are acknowledged within the diffusionist imaginary, but are widely presented as mutually beneficial and thus not troubling this imaginary.²⁹ By contrast, geographical political economy theorizes such connectivities as tendentially reinforcing uneven development. As in dependency and world systems theories, the impoverishment of certain people and places co-evolves with globalizing capitalism, rather than being an original condition that immanent capitalist development can overcome (cf. Amin, 1974; Frank, 1967; Harvey, 1982; Wallerstein, 1979).

If a relational/dialectical geographic ontology undermines the diffusionist, territorial History 1 that still plagues mainstream economic conceptualizations of geography, capitalism and development – concluding that capitalist development in the core tendentially undermines that in the periphery – consideration of culture, identity, and more-than-capitalist economic practices further compounds the picture. A narrative that imagines enrolling cultural and geographical difference into the drive for economic prosperity, commodifying it as tradable assets, becomes replaced by one that stresses cultural difference as a shifting terrain of contestation over what counts as living well: a contestation with no determinable outcome.

It is vital to recall that globalizing capitalism's own emergence to global hegemony (a trajectory stretching back to Britain's adoption of free trade in the early 19th century) itself was achieved through its own successful contestation, and marginalization, of alternative imaginaries and practices of the economy, liberty, justice and the good life. Contestations are ongoing. Some that preceded globalizing capitalism persist, such as

tropical subsistence livelihood systems. Others have emerged as alternatives, such as the state socialism that many postcolonial societies experimented with after 1950. As the problems of globalizing capitalism have become particularly trenchant, multivalent contestations are increasingly visible, at a variety of sites and scales (cf. Leitner et al., 2007a). Alternative imaginaries and practices, located in and across civil society and political institutions and entailing various spatialities, exceed the logics and processes driving capitalism. These include: explicitly anti-capitalist national (Venezuela, Iran), regional (Kerala) and local territorial strategies (Escobar, 2008; Moore, 1998); state agencies pursuing non-capitalist agendas; and alternative social movements stretched across space.

As in Chakrabarty's History 2, these alternatives draw strength from a capacity to resist becoming 'forms of [globalizing capitalism's] own life-processes' (Chakrabarty, 2000: 63). Of course, different contestations reflect distinct sociospatial positionalities and are unequally empowered, with questions remaining about their relative efficacy and capacity to realize their particular developmental imaginaries and challenge hegemonic imaginaries and practices. Nevertheless, to dismiss contestations a priori is to cede ground to globalizing capitalism (Featherstone, 2003; Gibson-Graham, 2006; Leitner et al., 2007b; Rose, 2002).

Conclusion: Transcending development teleologies

In this paper, I have analyzed the different narratives of the economy, geography, nature and development mobilized by mainstream economists and economic geographers during the past 15 years. Among the public and in policy-makers' imaginations, economists' imaginaries dominate geographers' – an ongoing challenge for the viability of our discipline. Examining three such influential streams of thought, I note that they conceive the relationships between geography, nature and development in a particular way. Like many geographers, they are increasingly critical of what we have come to call the neoliberal phase of capitalist globalization that characterized the past three decades – market triumphalism.

Nevertheless, they share a sociospatial imaginary, itself rooted in mainstream economics, whose methodological individualism and territorialism, and treatment of space and nature as external to the economy, underwrites a diffusionist, teleological conception of development – an imaginary of globalizing capitalism as capable, in principle, of transferring economic prosperity from the global North to the global South. As a generation of dependency theorists and of postcolonial scholars have noted, this implies that the global North provides a model for all to follow – European history is universalized as everyone's history. In this imaginary, geography plays at best a secondary role: imprisoning disadvantaged locations by blocking this diffusion, or describing a set of contingent contextual place-based features that require differentiated instruments to align different kinds of places onto the same path. A corollary of this shared development imaginary is that the global North remains the repository of expertise about how to achieve development, a role it has asserted for itself since colonial times, because success is taken as the mark of expertise.

Against this, I argue, the relational/dialectical ontology currently dominating Anglophone economic geography makes space for non-teleological, variegated development imaginaries. Emergent unequal geographies are part of the very fabric of globalizing capitalism. Differently positioned places require different strategies even when sharing the same goal, legitimizing a multiplicity of developmental trajectories, rather than a teleology (Amin, 2002; Massey, 1999; Sheppard, 2002). Beyond this, cultural differences about what it means to live well, and how to realize this, are increasingly intermingled and co-constitutive – an ongoing resource for contestation. Couze Venn (2006) puts this well:

Underlying the strategies of development ... one finds ... the idea that 'progress' ... [implies] the erasure or conversion of the previous state of affairs in favor of more efficient and rational stages. Within this perspective, the co-habitation of different spatialities and temporalities is seen as a sign of dysfunction, or a side effect to be managed ... [Yet] cultures are inescapably polyglot ... the interpenetration of the global and the

local at all levels means that the material and the virtual, roots and routes, are now correlated in terms of different spatialisations and temporalities ... in terms of new imaginaries that pluralise belonging in quite new ways. (Venn, 2006: 43–44)³⁰

Rather than a teleological trajectory, development is imagined as an assemblage of possibilities that are struggled over by differently situated and located groups of actors in shifting alliances and rivalries. Sociospatially differentiated conceptions of what it means to live well, of how differentiated economic practices are valued and how to improve livelihoods, cohabit the earth, merging into, and being transformed through, one another.

Of course, contestations are unequally empowered. Inevitably, more powerful and widespread livelihood assemblages seek to superimpose their development imaginary on others. Such struggles long precede the moment when the term development gained its current doctrinal usage in European colonial societies (Cowen and Shenton, 1996). Nevertheless, such attempts at intended development, driven by sociospatial processes of power/knowledge, persuasion, emulation and governmentality, are always incomplete and vulnerable to differently positioned contestations – contestations over development imaginaries and practices, and over development itself (Escobar, 1995; Sachs, 1990; Santos, 2008; Sidaway, 2007).

Imaginaries of capitalist development as a common, economic path to the good life, eventually deliverable and acceptable to all, have never been adequate to the task that they set themselves. Irreducibly differentiated livelihood practices come together in provisional and shifting assemblages, with particular spatiotemporal footprints and effects. Such assemblages are 'always heterogeneous; ... mutually constitutive within and across scale; ... the human and non-human are intimately related and co-implicated; ... change is the only constant; ... spatiotemporality is an emergent but influential aspect; and trajectories are contingent and uncertain' (DeLanda, 2006; Sheppard, 2008: 2609).

In a relational/dialectical ontology, these are not simply multiple trajectories co-existing with one another, from which each chooses their preferred

alternative. They are interbraided, shaping one another in shifting, geographically complex and unequal ways. Geographical trajectories of societal development are more akin to Steven Jay Gould's intertwining branches than Rostow's stages. This opening up, while generative of variegated imaginaries, is potentially plagued with problems of differential empowerment and the danger of slippage into relativism. On the one hand, for all its failures and slippages, the performative success of the mainstream capitalist imaginary must be acknowledged. Its taken-for-granted status and propagation through the vectors of postcolonial geopolitics has enabled it to masquerade as universal, quasi-scientific knowledge about geography and development. Yet, like all such monistic knowledge systems, it emerged as a local epistemology, carved out of a particular context (18th-century British Lockean liberalism sutured to European colonialism). Thus, before accepting this ontological and theoretical framework on faith, it is important to interrogate how it has fared as it has globalized beyond its time/place of origin.

On the other hand, for all their multifaceted and potentially transformative possibilities, it cannot suffice to simply celebrate every one of those contestations that still seem, from the mainstream perspective, particular, parochial, and local.³¹ Creating space to take alternatives seriously cannot be a license to do so uncritically. Indeed, all such assemblages must be subjected to a reciprocal critical engagement with one another, whereby each is challenged to defend its norms in light of others' criticisms. Each must be assessed critically in terms of its impact on both the livelihood possibilities of those pursuing it and those living otherwise (and elsewhere). Political and moral grounds, the implicit bases for critique, must be laid bare for debate (Barnes and Sheppard, 2010; Olson and Sayer, 2009). Finally, this cannot be restricted to the realm of intellectual disagreement; critical assessments of grounded livelihood practices undertaken in the name of one or another imaginary are at least as important.

Such mutual critical engagement between livelihood assemblages and development imaginaries implies that the locus of expertise, conventionally

associated with the global North, metastasizes to all those participating in such exchange. If such engagement could be realized, it is unlikely to result in agreement (Longino, 2002). The purpose should not be framed in terms of realizing a consensus about development and the good life – something that is likely to be as undesirable as it is impossible. Rather, it should be seen as an open-ended process of mutual learning – during which each potential development imaginary is subject to the most rigorous challenge and revision. Such a normative vision is difficult to implement and fraught with risk. Even-handed engagement between global-scale powerful, seemingly universal assemblages and more local and heterogeneous alternatives (between, say, the World Economic Forum and the World Social Forum) will be impossible without finding ways to empower the latter. Further, the co-existence of different assemblages and imaginaries will require developing alternative modalities of interaction and coordination – tasks conventionally given over to the market and the state; alternative assemblages cannot simply exist side by side but will be interconnected. Yet the current status of the world is hardly one that endorses any complacency about the adequacy of the currently hegemonic development imaginary. Indeed, the essence of geographical reasoning should be an open-minded acknowledgement of the differences across, and a rigorous interrogation of the possibilities of, our world, wherever this may lead.

Notes

1. Quoted in 'A question of blame when societies fail', George Johnson, *New York Times*, 25 December 2007. Available at: <http://www.nytimes.com/2007/12/25/science/25diam.html>.
2. I take a very broad-brush approach to nature, reducing the incredibly complex interminglings of a more-than-human geography to two contrasting narratives about the relationship between the human and non-human world: first versus second nature. I leave it to others to judge whether and how this simplification compromises the arguments made here.
3. These arguments remain controversial in Economics, as will be discussed in the next section.

4. Throughout, I place geography in quotes when it refers to the particularly limiting conception disinterred by Diamond and Sachs.
5. Diamond's explanation of why Haiti is largely deforested (a mark of its unsustainability), unlike the Dominican Republic, is very similar. Adopting the unfamiliar domain, for him, of social rather than environmental analysis, he argues that the Dominican Republic benefitted from European immigration and cash crop exports, and thus was able to mobilize considerable local expertise of European origins about forest management. By contrast, he suggests, Haiti (whose population of largely African origin fomented a famous anti-slavery rebellion) did not attract European immigrants, engaged in subsistence agriculture instead of cash crop exports, and now requires external expertise to manage its forests (Diamond, 2005: 339–41). (He leavens this account with the Malthusian specter of overpopulation in Haiti.) Like Acemoglu et al., he associates expertise, here, with (white) Europeans rather than Africans, and equates development with specialization and international trade.
6. Social Darwinists such as Herbert Spencer drew on this conception in their arguments that human and societal competition inevitably favors those who are superior – using such arguments to legitimate the success of Europeans and the privileged classes (Peet, 1985).
7. I am grateful to Marion Traub-Werner for drawing my attention to this.
8. Evolutionary economics is a popular subcurrent of heterodox (i.e. non-mainstream) economics, where biological debates about evolution still are revisited (e.g. Boschma and Martin, 2007).
9. Heterodox economists, including Marxists, dependency and world system theorists and feminist and ecological economists, as well as economic geographers, emphasize non-teleological conceptions of development (or, on occasion, other teleological trajectories).
10. Hugh Goodacre offers a similar comparison of Sachs' and Krugman's approaches, noting a relative neglect of Sachs by economic geographers that reflects their 'absorption ... in theoretical and methodological issues, at the expense of a focus on the struggle for development' (Goodacre, 2006: 264).
11. Indeed, the very idea that there could be more than one equilibrium outcome was quite controversial in mainstream economics, until recently.
12. This has long been recognized (Harvey, 1999; Lösch, 1954 [1940]; Ottaviano and Thisse, 2004).
13. This is exemplified by mainstream trade theory, where the benefits of free trade are presumed to outweigh any costs for a minority, who can be compensated in order that all can gain from trade (Sheppard, 2011b).
14. The United Nations Research Institute for Social Development organized a conference on 'The need to rethink development economics' in September 2001 (Hart, 2002).
15. The shaping influence of this cluster of economists is such that a distinct, explicitly radical 'new development economics' (Jomo and Fine, 2006) has received little attention.
16. For a critical assessment see, for example, Peet (2009); Sheppard (2005).
17. Timothy Mitchell has traced how de Soto's trajectory, via Geneva, to become the representation of indigenous third world economic expertise with considerable influence over World Bank policy was shaped by the same forces that made the neoliberal thought collective of the West (Mirowski and Plehwe, 2009; Mitchell, 2005b).
18. *The Economist* now views state capitalism as important for years to come (*The Economist*, 2010).
19. These arguments, formalized by Eugene Fama as the Efficient Markets Hypothesis (EMH), were broadly criticized given their central role in the 2008 implosion of global finance markets (Buiter, 2009; Fama, 1991; Mackenzie and Millo, 2003). Yet any reports of EMH's death are greatly exaggerated.
20. In ergodic systems, distributions of future possibilities are well defined and do not depend on the history of the system. In non-ergodic systems, the opposite is the case. These include systems exhibiting dynamical and computational complexity: non-linear dynamical systems of the kind popularized under the rubric of complexity theory.
21. Drawing on complexity theory, some economists have sought to treat the neoclassical economy as an 'evolving complex system' (Anderson et al., 1988; Arthur et al., 1997). Nevertheless, the power of equilibrium thinking is such that the destabilizing

- potential of this approach for mainstream hard-core propositions is repeatedly shied away from (Krugman, 1996; Markose, 2005; Plummer and Sheppard, 2006).
22. Uncertainties about how market-clearing prices can actually emerge, even under conditions of perfect competition, are often resolved by resorting to Leon Walras' notion of deputizing the task to an auctioneer.
 23. Although measurement of development is currently subject to debate (Stiglitz, 1993).
 24. This is much like Andrew Sayer's realist account of the difference that space makes (Sayer, 2000).
 25. It is impossible, of course, to accurately represent the diversity of economic geography here, or the richness of the empirical research on globalizing capitalism that it has generated. I offer my particular, situated perspective on geographical political economy, in the belief that its broad lineaments are broadly shared across the subdiscipline. This common ground includes the propositions that agency and structure are mutually constitutive, that spacetime shapes and is shaped by the economy, that relational connectivities between places and across scales are crucial, that economic processes are bound up with and inseparable from politics, culture and identity, and that capitalism produces sociospatial inequality.
 26. Notwithstanding attempts to distance the recently dubbed 'relational turn' in economic geography from political economy (Boggs and Rantisi, 2003; Ibert, 2009), I regard the two as sharing an ontology that focuses on the relations between entities rather than on the entities themselves. Like David Harvey, I regard this as dialectical in inspiration (Harvey, 1996; Sheppard, 2008).
 27. The 'Fundamental Marxian Theorem' shows that profits can only be made when the socially necessary labor contributed by workers to commodity production is greater than the labor for which they are compensated (Morishima, 1973).
 28. Similar arguments apply to labor, because human actions are never fully reducible to economic calculation (Polanyi, 2001 [1944]).
 29. Promoting unrestricted trade, investment, knowledge and labor flows is supposed to close the 'gap' between rich and poor countries, accelerating the convergence of the latter on the former.
 30. Of course, this is not a uniquely geographical insight; other disciplines have been at least as active in

prosecuting such an imaginary. Yet the sociospatial ontology described here certainly helps underwrite such imaginaries.

31. Of course, the mainstream development narrative is also particular, parochial, and local; its success lies in a capacity to elide this.

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