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Trade, globalization and uneven development: Entanglements of geographical political economy

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Abstract
Mainstream geographical economics propagates the free trade doctrine, presenting capitalism as entailing, but capable of overcoming, uneven geographical development. Geographers have failed to engage with the international trade theories that rationalize this, or develop alternatives. Beginning with the entanglements through which trade happens, I examine how theories rationalizing the free trade doctrine isolate trade, mobilizing a narrow sociospatial ontology. Marxisant trade theories offer important critiques, but are similarly marred by limited sociospatial ontologies. By contrast, attending to the entanglements of trade, geographical political economy can decenter the free trade doctrine, creating space for taking seriously alternative trading imaginaries and practices.

Keywords
free trade doctrine, geographical economics, international trade, political economy, uneven development

I Introduction

> Comparative advantage is the best example of an economic principle that is undeniably true but not obvious to intelligent people. (Samuelson, 1969)

> In a word, the free trade system hastens the social revolution. It is in this revolutionary sense alone, gentlemen, that I vote in favor of free trade. (Marx, 1848)

Since the mid-18th century practically every self-styled economist or political economist of global repute has found it important to examine the free trade doctrine (the claim that unrestricted international trade is beneficial, in principle, for all participants). Samuelson's view has trumped that of Marx, as is evident in geographical economics (economics' 'new economic geography'). Thus Richard Baldwin utilizes Paul Krugman's theory of geography, trade and development to conclude that a historical downward trend in transportation costs accounts for both the historical polarization in economic well-being between north and south, and its current putative (re)convergence. In this narrative, prior to the 17th and 18th centuries high transport costs prevented global divisions of labor. Between 1846 and 1914, 'globalization 1' lowered transportation costs to the point where a geographical specialization of manufacturing, in the first world, was the stable global equilibrium outcome: 'as history would have it, the North won at the South's expense' (Baldwin,

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2006: 13).[1] After a 'counter-globalization' interregnum between 1929 and 1945, 'globalization 2' has further lowered communications costs to the point where a geographical specialization of manufacturing is no longer the equilibrium outcome. This is why, he argues, we are currently experiencing the (re)industrialization of the global South – toward the new equilibrium. The 2009 World Development Report makes essentially the same argument: that all territories follow a common Kuznetsian path of economic development (Kuznets, 1955, 1966; World Bank, 2008): Sociospatial inequality initially increases under capitalism, only to reconverge toward sociospatial equity as development proceeds. Key to this are free trade, falling transportation costs, and eliminating spatial bias in state policy.

Geographers have had remarkably little to say about global trade, however. Beyond being a gap in the literature, this aversion is complicit in reproducing the hegemonic discourse that free trade can overcome uneven geographical development. Mainstream international trade theory rationalizes an account of globalizing capitalism's capacity to make prosperity ubiquitous that few economic geographers endorse: geographers generally assert that neoliberalization exacerbates uneven geographical development. It is thus remarkable that Anglophone economic geographers, who have invested much into studying other vectors of economic globalization, have had so little to say about the quintessentially geographical processes of international trade. In a 1986 survey, James McConnell already lamented 'how puzzling it seems that so little attention has been given by geographers to this important topic', although 'we can be somewhat optimistic about the attention geographers are likely to give to international trade' (McConnell, 1986: 477, 481). By 1994, Richard Grant was able to document increased attention, although 'few have been able to specify an overall theory and framework for geographical inquiry' (Grant, 1994: 299, seeking to articulate such a theory himself). Yet, a current survey still finds international trade to be a 'relatively unexplored topic by economic geographers' (Andresen, 2010: 94).

Using the 'broadest definition of international trade' Grant (1994: 299) counted some 50 articles by geographers between 1980 and 1994; Andresen lists 19 further articles since. The ISI citation database includes 27 geography articles between 1986 and 1994 whose title, abstract, bibliography or keywords contain the string 'international trade', growing to 151 between 1995 and 2009 (tripling from three annually, on average, to ten). Temporal trends in citation counts are inevitably plagued by the shifting scope of and detail contained within the ISI database, making ratios a more reliable measure of influence. Comparing numbers of articles published containing 'international trade' in economics and geography journals, on average economists have published 95% of the total. Indeed, during the very period when trade economists, following Krugman (1991), took to including 'geography' in their analysis, the ratio of geography to economics articles fell (Figure 1).

Examining this geographical literature of the last two decades, four publication clusters dominate: (1) those who take up various propositions emanating from mainstream international trade theory, seeking to determine whether a consideration of geography complicates or confirms these propositions (e.g. Hanink, 1988, 1991; Hanink and Cromley, 2005); (2) those who have followed Johnston's (1976) lead in seeking to trace geographical patterns of trade and their relation to broader geopolitical trends (e.g. Gaile and Grant, 1989; Gibb and Michalak, 1996; Grant, 1993; Michalak and Gibb, 1997; O'Loughlin, 1993; Poon, 1997; Poon and Pandit, 1996; Poon et al., 2000; Shin, 2002); (3) those who shift the resolution of trade analysis from nation states to subnational localities, seeking to determine how subnational geographies articulate with international trade (e.g. Andresen, 2009; Baldwin and Brown, 2004;

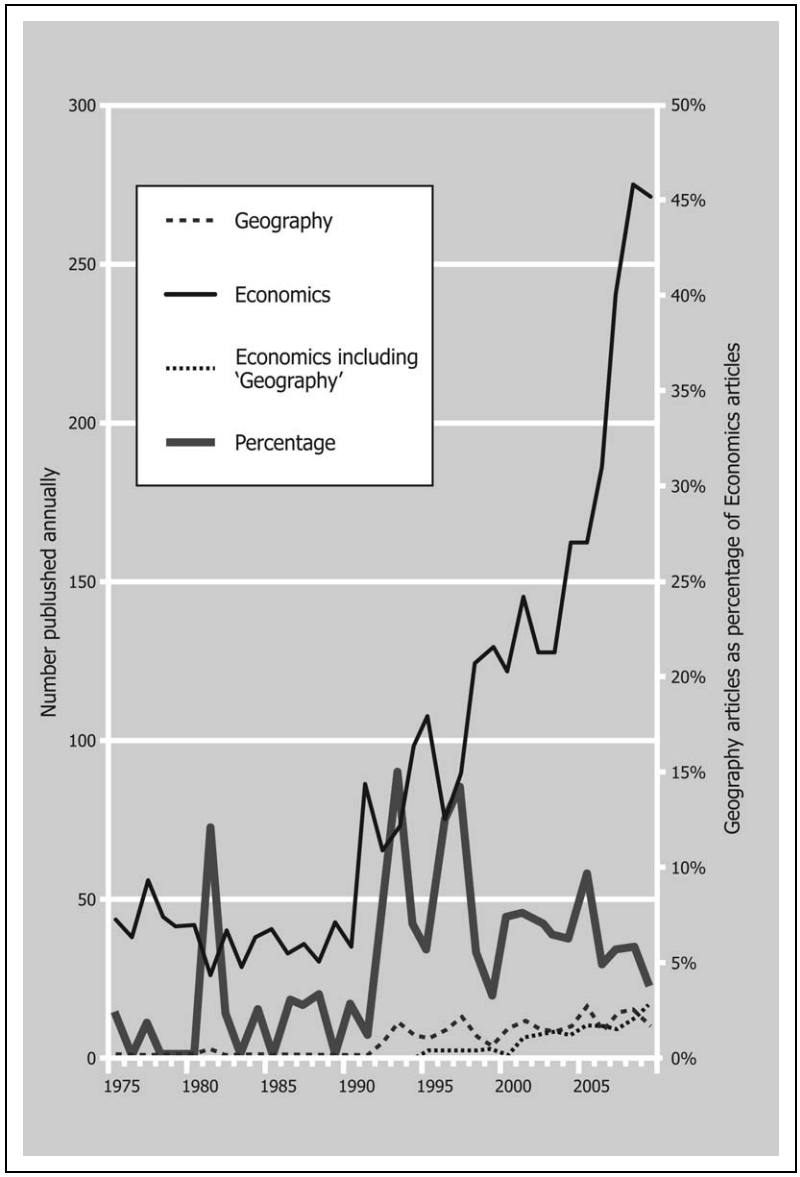

Figure 1. Articles containing 'international trade'
Source: ISI-Thompson database

Boschma and Iammarino, 2009; Breau, 2007; Erickson and Hayward, 1992; Hayter, 1992; McConnell, 1997; Rigby and Breau, 2008; Storper, 1992); and (4) those who discuss international trade without addressing mainstream trade theory at all (e.g. Coe and Yeung, 2001; Hughes, 2006). These are small literatures when compared to the efflorescence of conceptual case studies examining various aspects of the international movement of commodities that never discuss trade theory. These range from analyses of commodity chains (e.g. Cook et al., 2004), to fair trade and alternative food networks (e.g. Whatmore and Thorne, 1997),

and foreign direct investment and global production networks (Coe et al., 2004; Hess and Yeung, 2006; Liu and Dicken, 2006). Trade theorists no doubt regard such case studies as offering interesting local color, of little relevance to their core theoretical propositions (cf. Overman, 2004).

What accounts for geographers' strange silence on the theories and discourses of international trade? No doubt it partly reflects a desire to avoid becoming sucked into the strange attractor created by trade theory. Theories justifying the free trade doctrine have been subject to almost two centuries of criticism, inside and outside economics, criticism that is absorbed as cautionary tales, exceptions that prove the rule, without undermining the consensus surrounding the doctrine (Irwin, 1996; McGovern, 1994; Sheppard, 2005). As Amin and Thrift (2000: 8) argue, 'we need to think seriously about whom we as economic geographers want to play out with'. Second, the relentlessly mathematical and statistical nature of the literature on international trade is a source of discomfort, given a (mistaken, in my view) tendency to see quantification as incompatible with critical theory. A third, obvious criticism is that the empirical data available for analyzing international trade are plagued by the deep problem of all 'state-istics': methodological nationalism (Agnew, 1994; Brenner, 2004; Taylor, 1996).

There is a cost, however, to avoiding engaging with mainstream international trade theory, particularly now that it is integrated into a geographical economics that has gained unprecedented attention for 'economic geography' among global policy-making elites (Brakman et al., 2009; Fujita et al., 1999). No matter how quixotic it may seem to challenge mainstream trade theory, our collective failure to do so unintentionally reproduces its hegemony. In this paper, I take steps toward a geographical theorization of global trade that makes possible very different conclusions about trade, globalization and uneven development than those offered in mainstream economics. My argument proceeds in four stages. First, I tease out the many entanglements of trade, which mainstream trade theory slices through in order to draw its conclusions. Second, I summarize the genealogy of the mainstream theory, identifying its 'hard-core' propositions and limited sociospatial ontology, and discussing how geography has entered into this scholarship during the past two decades (and its implications). Third, I summarize attempts to articulate Marxian and post-Keynesian critiques from within political economy.

Fourth, I lay out some principles for a theory of global trade that is consistent with the sociospatial ontology of geographical political economy, and how this provides grounds for the proposition that capitalism characterized by unrestricted trade reproduces, rather than resolves, conditions of uneven geographical development.

II Slicing through the entanglements of trade

The movement of commodities across space is, of course, an incredibly complex entanglement of the (more-than-) capitalist space economy. If we could visualize and animate these flows, they would flicker across the landscape, interconnecting bodies, firms, markets, neighborhoods, cities, regions and countries in ways that reflect, reproduce and transform the connectivities of economy and their place-based imprints. The genius of mainstream trade theory (and economics) has been its willingness to cut this Gordian knot, disentangling trade from its relational determinants with the effect of rationalizing the free trade doctrine. In order to highlight the impact of this disentanglement on how trade is envisioned (Buck-Morss, 1995), I summarize here some salient entanglements, conspicuous by their absence from or marginalization by mainstream theory.

First, there are the *entanglements of economy*: the complex ways in which various economic

activities are interlaced through commodity trade. François Quesnay envisioned this as the *tableau économique* in 1759, an idea central to Marx's puzzling about how capitalism can create value and reproduce itself in volume three of *Das Kapital*. Wassily Leontief formalized these as an input-output table, given spatial expression by Walter Isard (Isard, 1951; Leontief, 1928; Marx, 1896 [1972]; Quesnay, 1753–1758). This conception of the production of commodities by means of commodities has caused all manners of headaches for neoclassical (and Marxian) theories of growth, distribution and value (cf. Barnes, 1996; Harcourt, 1972; Sheppard and Barnes, 1990; Sraffa, 1960). Second, there are the *entanglements of space*. The complex spatialities of commodity trade are reduced to international flows, aggregated by national economy and sector, and measured by state-istics. Generally, this is reduced to a theory of just two point-like countries of equivalent status, with no transport costs. Subnational interregional trade has received occasional attention, but almost always as a minor subtheme within international trade.

Third, there are *entanglements with other global flows and connectivities*. Commodity trade co-evolves with foreign direct investment, global production networks, international financial trade, migration, and movements of information and knowledge – all largely excluded from international trade theory.[2] Fourth, there are trade's *entanglements with the more-than-economic*. One widely discussed aspect is governance. The horizontal connectivities of international trade are co-implicated with complex multiscalar territorial governance structures: local initiatives to advance global competitiveness, national attempts to influence cross-border flows, and public and private global governance regimes (The Bretton Woods institutions, the World Trade Organization, Trade-Related Aspects of Intellectual Property Rights agreements, corporate governance networks, etc.). Beyond this, a hallmark of geographical research has become examining the many ways in which culture, emotion, discourse, and more-than-human materialities are co-implicated with the economic.

Fifth, there are capitalism's *entanglements with non-capitalist economic logics*. An elementary example is how the production and exchange of commodities for profit is always accompanied by other modalities of production and exchange (e.g. Gibson-Graham, 2006; Gudeman, 2008). These range from Local Exchange Trading Systems (LETS), to global fair trade and international barter (US$12 billion in 2008, www.irta.com; local barter has boomed during the current world economic crisis).

Cutting through these entanglements involves a heroic feat of simplification, much lauded in mainstream economics, in the name of scientific parsimony, with the effect of legitimating the free trade doctrine. This disentangled envisioning of trade is illustrated in Figure 2, a representation of cutting-edge trade theory from *The New Introduction to Geographical Economics* (Brakman et al., 2009).

III Mainstream trade theory

The mainstream theory has a voluminous literature, but a monolithic genealogy: from Adam Smith to David Ricardo, then Heckscher, Ohlin and Samuelson, and most recently Helpman, Grossman and Krugman (cf. Wong, 1995). Four principal developments have marked this trajectory. First, Smith argued that free trade is always desirable as it extends the market (Smith, 1776). Between two nations, trade would be mutually beneficial if each had an absolute cost advantage in a different product. This was not good news for England, however, where wages and prices were higher than many other nations – and Smith was an ardent proponent of state action to enhance England's terms of trade (such as the Navigation Acts requiring the use of British ships for moving goods through its

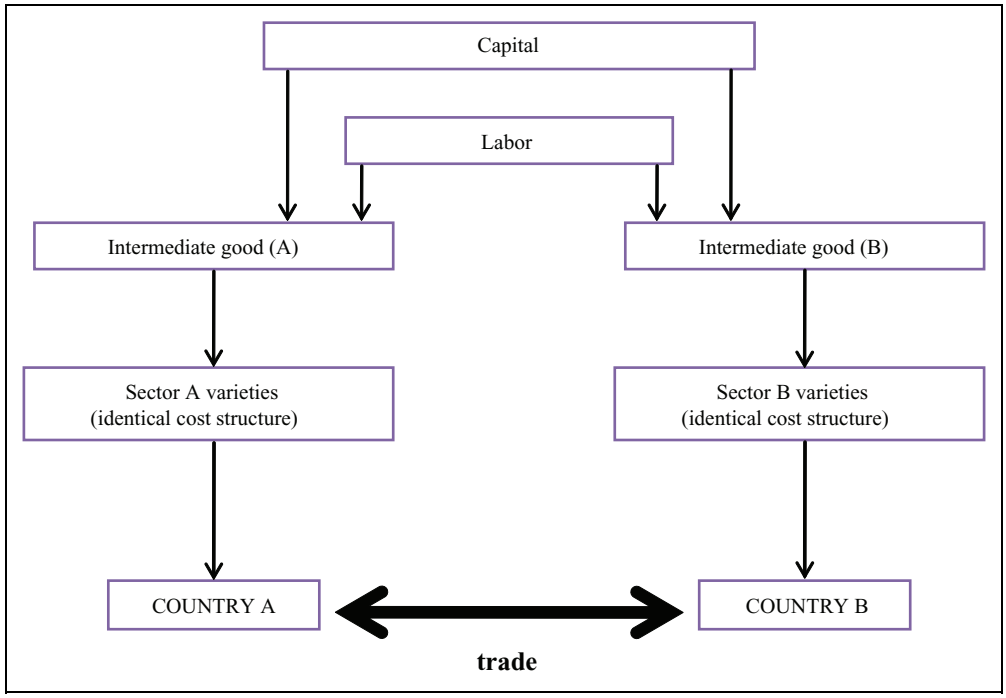

Figure 2. Disentangling global trade
Source: Brakman et al. (2009): Figure 9.8, p. 374, reproduced by permission

Empire). Second, David Ricardo's theory of comparative advantage finessed this problem, creating the orientation point for all subsequent theory. With given national differences in production technologies, and no international migration, it is advantageous for two nations to trade as long as each specializes in a commodity that they are relatively more efficient at producing, by comparison to the other. This made the potential of mutual gains from trade much more generally applicable: Every nation was seen as having something it could produce relatively efficiently as a result of its particular endowments, with potential gains from trade thus available to all. Ricardo's theory served as much to propagate Lockean liberalism as it did to 'prove' a free trade doctrine that already had become a core liberal principle by the end of the 18th century (cf. Sheppard, 2005). His stylized empirical example, trade between England and Portugal, falsified the historical record of a trading relationship that consistently enriched England and impoverished Portugal (Peet, 2009; Sideri, 1970). Yet it is arguably the most influential argument in mainstream economics (Samuelson, 1969).

Third, in the 1930s Heckscher and Ohlin founded the 'modern' theory of international trade (formalized by Samuelson), incorporating Ricardo into neoclassical economics (Heckscher, 1919; Ohlin, 1933). Here, comparative advantage is determined by a nation's relative abundance of production factors, rather than production costs. Assuming the validity of aggregate neoclassical production functions, when a production factor is abundant in a nation, its lower marginal productivity makes it cheaper relative to other production factors, implying that specializing in activities that draw heavily on the locally abundant factor will realize national comparative advantage. For example, nations with abundant labor should

Table 1. Hard-core propositions of mainstream trade theory

Proposition	Description
1	Trade patterns are determined by differences in comparative cost of production ratios between countries
1a	Intra-industry trade is explained by the differentiation of products across countries and consumers' preference for variety
2	Where there are different relative prices across countries, there will be gains from trade in exchanging goods at intermediate price ratios
2a	Even in the absence of comparative cost differences, there may still be gains from intra-industry trade, in terms of consumer choice, if traded goods are differentiated, or if economies of scale stimulated by international trade generate comparative cost differences
3	Free trade (with appropriate compensation) increases the welfare of all trading partners

specialize in and export labor-intensive products, whereas those with abundant capital should specialize in capital-intensive products. Since any profit-maximizing capitalist would presumably seek to use more of what is cheaper, this also had the compelling implication that the rational choices of individual capitalists match the national interest; they conform to comparative advantage. Thus free domestic and free international trade complement one another.

Fourth, the 1990s' 'new' theory of international trade developed a further modification, seeking to account for what was dubbed 'intra-industry' trade. This referred to reciprocal trade in manufactures among the industrialized capitalist countries, which economists finally sought to address. Based on recently developed theories of monopolistic competition (Dixit and Stiglitz, 1977), this theory sought to account for where, across two countries, industrial clusters would emerge (Grossman and Helpman, 1991; Helpman, 1990; Krugman, 1990). Overall, each stage of theorization is presented as a revolutionary advance on the previous one. Yet they are sutured together by their capacity to reproduce and reconfirm a set of Lakatosian hard-core propositions that rationalize the free trade doctrine (Lakatos, 1970; McGovern, 1994) (Table 1).

As is well known, these propositions rely on a series of heroic assumptions that inter alia disentangle trade from everything else. Quasi-perfect competition drives profits to zero (net of fixed costs): 'assumptions of free entry and exit by firms that are ex ante identical, are infinitesimal in scale, and compete non-strategically' (Neary, 2009: 2). Representative economic agents act rationally, on the basis of perfect information. The international economy is in equilibrium: trade balances, markets clear, and all production factors are fully employed. Geography is practically non-existent: typically, there are two countries of equal size and influence, with no internal spatial differentiation, and transportation costs associated with trade are ignored. Under such assumptions, it can be deduced that appropriate specialization and trade enhances international output, and that each country can be better off (obtaining more commodities for the same effort) with trade than in autarchy.

The implausibility of these assumptions has provided much grist for criticism. Beyond this, empirical tests have not been kind to the theory. Leontief's paradox (the USA, with the world's highest capital-labor ratio, exports commodities whose capital-labor ratio is *lower* than that of its imports) remains a stubborn thorn in the eye of trade theorists, as it is the opposite of what the 'modern' theory predicts (Leontief, 1956). Confirmation of the Prebisch-Singer hypothesis, that primary commodity exporters face historically declining terms of south–north trade in exchange with manufacturing commodity exporters, undermines the 'win-win' predictions of the free trade doctrine. Finally, the failure of

global differences in the prices of labor and capital to dissipate over time undermines another central prediction of the 'modern' theory: factor price equalization (Samuelson, 1948). Such empirical negations, utilizing positivist standards for truthfulness adhered to by mainstream economics, have had to withstand repeated challenges within economics. They have not been refuted, but the theory stubbornly survives (Helpman, 1999; Ocampo and Parra, 2006; Subasat, 2003).

Theoretical critiques of the mainstream theory also have been prominent at times. In *Against the Tide*, Douglas Irwin (1996) painstakingly recounts these debates: infant industry arguments, the terms of trade, increasing returns, high wages, welfare considerations, and strategic trade policy. Each of these counter-arguments can be shown to have logical validity, but nevertheless is dismissed (by free trade proponents at the time, and by Irwin) as not crucially undermining the free trade doctrine: they are constructed as exceptions that only prove the rule.

IV Adding geography

The 'new' trade theory has incorporated geography into the mainstream theory, adding nuance and improving empirical performance. Krugman linked imperfect competition with transportation costs and labor migration to explain intra-industry trade (Krugman, 1991). Typically, transportation costs are treated as an 'iceberg': a deduction that melts productivity away as goods are transported. With such transportation costs, and by integrating the Ricardian, 'new' and 'modern' theories into a single two-country model, the standard results of Ricardo and Heckscher-Ohlin are replicated (Brakman et al., 2009: Chapter 9).

Yet the iceberg specification is profoundly empirically unrealistic: it implies that freight rates do not fall with distance (Fingleton and McCann, 2007). Geographical economists thus experiment with a variety of other transport costs specifications, and different geographies. They have treated transport costs as a fixed charge rather than an iceberg (Cukrowski and Fischer, 2000; Ottaviano and Thisse, 2004; Tharakan and Thisse, 2002). They have explored 'density dependent' transport costs, where the freight rate falls as the amount shipped increases, also embedding two equally accessible regions within two countries trading with on another (Behrens et al., 2003). They have examined spatial differentiation within a country, dividing it into regions that trade with a spatially undifferentiated second country (Courant and Deardorff, 1992; Crozet and Koenig-Soubeyran, 2004; Hanink and Cromley, 2005; Krugman and Livas Elizondo, 1996; Mansuri, 2003; Paluzie, 2001). In 'A spatial theory of trade', Rossi-Hansberg (2005) reinvents a much earlier geographical research program on location, specialization and trade across continuous space (Beckmann and Puu, 1985; Curry, 1970, 1989). They have explored uneven international geographies, the clustering of countries into continental world regions and preferential trade areas, and differences in national endowments (Cukrowski and Fischer, 2000; Davis and Weinstein, 2003; Rauch, 1999; Venables and Limão, 2002; Villar, 1999). Occasionally, they integrate foreign direct investment with trade, dubbed 'oligopolistic general equilibrium' (Markusen, 2002; Neary, 2009). Such geographical complexities lead to a variety of conditions under which the derived general equilibrium deviates from the free trade doctrine, including scenarios where regions and countries lose as a result of trade. '[T]here is a sense in which the new developments in mainstream trade and growth theory have eliminated the centre of trade theory. There are no core propositions that can be embraced without strong qualifications' (Darity and Davis, 2005: 164).

One geographical issue receiving particular attention during the past decade has been the question of how mainstream trade theory can be reconciled with the empirically compelling

gravity model. In 1976, Ron Johnston showed that the gravity model, whereby trade correlates positively with the size of the national economy but negatively with distance, provides a good empirical fit to international trade statistics (Johnston, 1976). Without acknowledging Johnston, economists have come to the same realization. Indeed, transport costs have been elevated from a minor complication that can be readily ignored, to the cause of the 'six major puzzles in international macroeconomics' (Obstfeld and Rogoff, 2000). Formulations consistent with the gravity model provide a much better fit with empirical trade data than those that neglect distance. Thus a powerful ex-post strategy for reinforcing the empirical status of mainstream theories – and thereby the free trade doctrine – would be to show that they are consistent with the gravity model: the fewer the exceptions, the stronger the rule. Significant success has been achieved by duplicating strategies used to offer a rational choice theoretic theory of human spatial interaction in the early 1970s that is consistent with the gravity model (cf. Domencich and McFadden, 1975; Sheppard, 1978, 1980). Jacks et al. (2009: 2) are now able to conclude that 'all micro-founded trade models produce a gravity equation of bilateral trade'. Ricardian, 'modern' and 'new' theories of trade, alike, have been reconfigured to make them consistent with the gravity formulation (Chaney, 2008; Deardorff, 1998; Eaton and Kortum, 2002; Melitz and Ottaviano, 2008).

As with spatial interaction theory three decades earlier, heterogeneity becomes the key to forcing the square peg of a microfoundational equilibrium theory into the round hole of the gravity formulation. Heterogeneity of preferences and firms within a particular territory rationalizes why apparently identical agents would undertake spatially heterogeneous actions, in terms of where they buy from and/or ship to, as predicted by the gravity model. Not only this; virtually all of the puzzles that spatial scientists sought to solve in the 1970s with respect to the gravity model – how to specify the distance friction effect, how to handle 'zero' distance (within territories), how to incorporate direct and indirect connectivities between locations, why the distance coefficient varies so much from study to study – vex trade economists today (Anderson, 1979; Anderson and van Wincoop, 2004; Bosker and Garretsen, 2007; Disdier and Head, 2008). These unacknowledged parallels send a shiver down this recovering spatial scientist's spine. Yet two issues central to the earlier geographic literature have been ignored by trade economists: the difficulty of accurately estimating distance coefficients in the presence of spatial autocorrelation (i.e. when economies of similar size are proximate to one another; Curry, 1972; Griffith, 2007), and the use of entropy maximization to estimate trade models (presumably, because it does not force spatial interaction into a tightly specified theory).

I have summarized these recent developments in order to indicate how and why mainstream trade economists have taken up the role of geography in trade theory, and to what effect. Without doubt, such elaborations have moved this body of scholarship some way from the two-country, two-characteristics, two-commodities disentanglement that Ricardo brilliantly pioneered, and challenge aspects of the free trade doctrine. Nevertheless, the socio-spatial ontology underlying this framework drastically simplifies the spatial and other entanglements stressed by geographers, limiting the degree to which mainstream propositions are challenged. There is no space to rehearse all such simplifications here (Plummer and Sheppard, 2006; Sheppard, 2011a), but some salient aspects are worth noting.

(1) *The economy, only*. Processes of commodity production, market exchange and accumulation are treated in isolation from the more-than capitalist and more-than economic processes with which they are co-

implicated. Economic interdependence (the first entanglement of section II) is generally neglected.

(2) *Methodological territorialism*. Two scales of actors are envisaged, each as contained spaces: autonomous, equally empowered individuals with given resources and preferences, and autonomous equally empowered (national) territories with given endowments. The body is the determinant scale: economics' obsession with microfoundations implies that national-scale phenomena are determined by bodily-scale rational actions. This eliminates relationality and unequal power relations, conceptualizing countries as subject to identical laws, conditional on contextual differences in place-based characteristics, aligning them onto a teleological capitalist development trajectory (catalyzed by trade).

(3) *Exogenous geography*. All geographical features, place-based characteristics and distance metrics, are exogenous: 'Geography is as exogenous a determinant as an economist can ever hope to get' (Rodrik et al., 2004: 134).

(4) *A flat world*. It is usually presumed that each country is equally positioned within the global system; that no cores and peripheries exist. (Recent research has introduced unequal, exogenous geographies, but as a variation on the flat world ontology, rather than as an alternative starting point for theorization.)

(5) *Limited temporality*. With the economy presumed to approximate general economic equilibrium, time is not only separated from space, but collapsed to a fixed point. It is assumed that the economy is self-regulating (close to a stable equilibrium), and that any losers from trade can be fully compensated by those who gain (Stolper and Samuelson, 1941). There is no space for history: how endowments come into existence (e.g. as England deindustrialized Asia in the 18th century), or how countries fared under the free trade doctrine (Sideri, 1970).[3]

V Alternative trade theories: stillborn heterodoxies

A remarkable feature of international trade theory has been the paucity of alternative theorizations from radical political economists, notwithstanding their extreme skepticism about mainstream theory.[4] These can be subdivided into Marxian theories, and post-Keynesian approaches haunted by Marx.

1 Marxist theories of unequal exchange

Examining two countries and neglecting transport costs, Arghiri Emmanuel argued that when two countries exchange products at equivalent prices of production, this does not generally result in the exchange of equivalent labor values (Emmanuel, 1972).[5] He termed this net transfer of labor value between countries unequal exchange. He argued that two general conditions cause a country to suffer a net loss of labor value through international trade. Unequal exchange in the 'broad' sense occurs if the country's specialization entails a lower organic composition of capital, and in the 'narrow' sense if it pays lower wages. The latter case was of particular interest to Emmanuel. A net loss of labor value means that surplus value is transferred to the other country, favoring capital accumulation in the latter. Thus he concluded that lower wages in the periphery favors capital accumulation in the core, enhancing uneven geographical development.

Anwar Shaikh sought to explicate what Marx's theory of international trade would have been, by extending his law of value to the international scale (Shaikh, 1979, 1980).[6] He finds that absolute advantage is more important than comparative advantage (cf. Milberg, 1994,

2002). Shaikh also uses the two-country case with no transport costs ('developed and underdeveloped regions of the capitalist world economy'; Shaikh, 1980: 57). He assumes that prices of production adjust internationally, so that rates of profit equalize across sectors and countries, and that labor values are set globally (in terms of globally socially necessary labor time). He argues that differences between Marx's and Ricardo's theories of money entail different conclusions about trade between an underdeveloped and a developed region.[7] In Ricardo's theory, if one country has absolute advantages in both commodities, then gold must flow from the more expensive to the cheaper region (from England to Portugal, in his example), to pay for the trade deficit with the cheaper country. An increasing quantity of gold in Portugal would drive up prices there relative to Britain, until Britain can export the commodity in which it has a comparative advantage at a lower cost than it could be produced in Portugal.[8] At this point trade would equilibrate.

Marx's theory of money does not tie price levels to the quantity of money in an economy. Shaikh argues that this implies that international flows of specie do not allow England (underdeveloped, because less productive in both sectors) to become competitive in its comparative advantage. Instead:

> eventually the £ must collapse, and with it the level of trade between England and Portugal ... England must eventually succumb to the consequences of its backwardness and restrict imports to the level consistent with its capacity to export ... [I]n the case of Ricardo's extreme example England has no capacity to export ... [However,] even an underdeveloped capitalist region ... may nonetheless produce certain commodities in which it has an absolute advantage. (Shaikh, 1980: 38–39)

Thus trade between core and periphery systematically disadvantages the latter. When trade occurs between countries with similar technologies and levels of productivity, however (i.e. within the developed or the underdeveloped region), 'factors such as climate, location, availability of resources, experience, innovations, and above all the competitive struggle between capitalists, became decisive in determining the pattern of absolute advantage' (Shaikh, 1980: 41) – and thereby specialization and trade.

Dependency and world-system scholars argue that global inequalities between core and peripheral world regions are due to unequal exchange. The Latin American Keynesian economist Raul Prebisch (1959) first attributed poverty and economic stagnation in Latin America to the unequal effects of international trade. His argument was based on: a higher rate of growth of productivity in manufactured than primary commodities; elevated wages in industrialized capitalist countries (reflecting struggles there between organized labor and capitalists, that could be passed on to primary commodity exporting former colonies as higher prices because of unequal global political and economic power); and stagnating prices for primary commodities in the absence of wage struggle in the periphery (benefitting industrialized countries). As a consequence, the bulk of the gains from trade accrue to industrialized core countries, exacerbating global uneven development (Sarkar and Singer, 1991; Sheppard et al., 2009; Spraos, 1983).

The African Marxist Samir Amin offers a theoretical explanation. Constructing a two world region model – advanced capitalist core and third world periphery – he argues that the third world has a 'natural advantage (abundant supply of ore and tropical products)' (Amin, 1974a: 13). Capital flows to the third world to finance extraction of these, because lower wages in the periphery make production more profitable than in the core: 'The products exported by the periphery are important to the extent that – ceteris paribus, meaning equal productivity – the return to labour will be less than it is at the centre' (p. 13). Geopolitical processes emanating from colonialism, reinforcing the

periphery's dependence on the core, are a precondition. Wage rates in the periphery will be 'as low as the economic, social and *political* conditions allow' (p. 13), resulting in small and distorted peripheral domestic markets. At the same time, the emergence of domestic, comprador peripheral elites creates a limited market for luxuries, served (when he was writing) by import substituting industrialization.

Dependency and world-system scholars offer historical accounts to complement Marxian analytics (cf. Amin, 1974b; Amin et al., 1982; Frank, 1978; Wallerstein, 1979). Unequal exchange between a powerful core and a dependent periphery created a global division of labor between industrial and primary commodities, with organized labor in the core negotiating higher wages, subsidized by low wages in a disempowered periphery. Low wages result in a domestic market that is too small to support domestic peripheral capitalism, perpetuating what Frank dubbed the development of underdevelopment. Peripheral elites support this pattern of global dependency because they benefit from it (Galtung, 1971).[9]

A variety of criticisms can be offered of these theories from within the Marxian tradition. Emmanuel's empirical argument is based on wages, but his theoretical basis for unequal exchange in the narrow sense depends on differences in the rate of exploitation, not wages (Sheppard and Barnes, 1990: 170). Further, Emmanuel's formulation erroneously assumes that Marx's original solution to the transformation problem between value and exchange value is strictly correct. If prices and labor values are correctly calculated, then, while unequal exchange is possible, no predictions can be made about the direction of inequality (Gibson, 1980; Mainwearing, 1974). Shaikh (1980: 52) agrees: wage differentials 'in and of themselves ... do not necessarily give rise to a transfer of surplus value'. Thus a higher rate of exploitation and lower organic composition in a country need not imply that it loses labor value through trade. Yet Emmanuel's and Shaikh's theories share difficulties rooted in their dependence on Marx's value theory (less clearly for Amin, who draws more loosely on the labor theory of value).[10] Within geographical political economy, labor values are geographically variegated in ways that are elided in Marxian value theory. Further, labor value can no longer be regarded as independent of (i.e. the basis for) prices of production when rates of profit equalize, raising significant questions about the applicability of Marx's essentially non-spatial value theory to a capitalist space-economy (Sheppard, 2004). Dependency theory can be criticized for its inability to account for the rapid industrialization and economic growth in selected third world countries that have transformed global trade and production during the past two decades: uneven development within the postcolonial world.

2 Post-Keynesian theories

Post-Keynesian theorists are skeptical of Marx's value theory, but nevertheless theorize capitalism in ways that are consistent with the economic interdependencies, uncertainties and contradictions of capitalism emphasized by Marx (e.g. Holt and Pressman, 2001). Inter alia, post-Keynesian theory has demonstrated that neoclassical macro-economic theory, fundamental to the modern trade theory that mainstream economists still utilize to explain north–south trade, is logically inconsistent. This generated a post-Keynesian theory of international trade.

Piero Sraffa, iconoclastic economist, confidante of Ludwig Wittgenstein and supporter of Antonio Gramsci (Roncaglia, 2000), pioneered this fundamental critique of neoclassical aggregate production theory (Sraffa, 1960). In a neoclassical world, a country with abundant labor relative to capital will specialize in and export commodities requiring labor-intensive technologies, whereas a country with abundant capital

will specialize in and export commodities requiring capital intensive technologies. Sraffa showed that there is no necessary equivalence between factor abundance and factor intensity; 'capital reswitching' is possible. A national, economy-wide 'capital intensive' production technology can replace a 'labor intensive' technology as wages increase, as in neoclassical theory. However, as wages increase further it is possible that the labor-intensive technology will become more profitable again – the opposite of neoclassical theory.[11] If wages are high (and capital cheap) in one country, with the converse holding in another, then the former may export *labor*-intensive commodities in exchange for more capital-intensive exports from the latter (Steedman and Metcalfe, 1979).[12]

This poses two deep problems for how the modern theory of trade explains comparative advantage (Jones, 1956–1957). The possibility of what Kar-yiu Wong (1995) calls 'factor intensity reversal' (i.e. capital reswitching) means that (1) the Heckscher-Ohlin theory is not universally valid, (2) the factor price equalization theorem is undermined (although weaker conclusions are possible, that average factor prices converge across countries), and (3) the Rybczynski theorem, providing the micro-economic foundation for comparative advantage, does not hold (Wong suggests it is not even meaningful).

Utilizing the example of a single 'small open' economy, Ian Steedman (1979) explored the implications of Sraffa's critique for the Heckscher-Ohlin-Samuelson theory. He concluded that comparative advantage could be resurrected, by the direct method of simply comparing the prices of production for different commodities. A country should specialize in the commodity whose relative price of production is lowest under prevailing technologies, irrespective of how it is produced or whether this is consistent with micro-foundations. Wong similarly concludes that comparative advantages can still be determined, although it depends also on the trade equilibrium (Wong, 1995: 94). Yoshinori Shiozawa (2007) recently generalized this to the case of M countries and N (>M) commodities, neglecting transport costs, to show that an international pattern of specialization exists that minimizes production prices and thus maximizes global production. Theodore Mariolis (2004) shows that the widely neglected phenomenon of joint production (when a single production process creates two commodities, e.g. wheat and straw) further undermines comparative advantage.

There is a second critique at the heart of Sraffa's analysis, which undermines any attempt to conceptualize production factors as exogenous inputs. Recognizing the importance of exogeneity, Ohlin devoted a chapter to trying to conceptualize factors of production in this exogenous sense, in terms of kinds of labor (skilled, unskilled, technical), natural resources, and capital (long and short, safe and risky) (Ohlin, 1933: Chapter V). Sraffa showed that capital goods are produced using other produced commodities, not from some exogenous homogeneous 'putty-clay' stuff called capital.[13] Indeed, all 'production factors' – money capital, labor, land, bio-physical resources – are increasingly commodified (Harvey, 2003; Polanyi, 2001 [1944]). Yet some post-Keynesian trade theory still treats production factors and technologies as fixed, place-based characteristics.[14]

3 Assessment

Attempts to construct Marxisant alternatives to mainstream trade theory – alternatives with the potential to deconstruct the free trade doctrine – have had remarkably little purchase, even within radical political economy.[15] They emerged as a cluster of intellectual innovations in the 1970s, but only world-systems analysis received sustained attention and now also is out of fashion. There is also little consensus – heterodoxy is the rule within these marginalized heterodox alternatives: Marxian value

theorists disagree on the nature, degree, and causes of unequal exchange, whereas post-Keynesians are critical of value theory tout court. This has left the field open for mainstream theory, still framed such that the free trade doctrine remains the rule. Beyond this, these alternatives tend to reiterate aspects of mainstream economics' problematic, disentangled sociospatial ontology: the economy, only; methodological nationalism; no, or exogenous geography (reduced to fixed, place-based characteristics); and limited temporality. Geographical political economy has the potential to do better.

VI Toward a geographical theory of global trade

Geographical political economy resists the disentanglements characterizing mainstream economics (Sheppard, 2011a). Attending to entanglement implies distinct theorizations of trade, challenging the free trade doctrine. Such theories are at best nascent. Thus, to explore this claim I examine two of the five entanglements of trade: spatial (temporal) and more-than-economic.[16]

1 Entanglements of space

I begin within the confinements of the capitalist economy, disentangled from the more-than-economic and more-than-capitalist. This has opportunity costs, but enables me to interrogate how attending to the co-constitution of economy and spatiality departs from the disentangled mainstream and heterodox economic theories of international trade. Consider the case of defined spatial territories (e.g. nation states), within which a variety of interdependent economic sectors, with technologies that vary by sector, firm and location, evolve. When such interdependencies transcend national borders, they are recorded as international trade. Three entanglements of space are of particular import: connectivity, methodological nationalism and spatiotemporality.

Consider, first, connectivity. A critical but neglected economic sector in trade theory is that of transportation and communications – sectors that commodify accessibility. Inclusion of these means that transport costs are no longer a fixed cost undermining productivity (cf. the iceberg model), but co-evolve with the capitalist space economy. This has two crucial implications (Sheppard and Barnes, 1990). First, capitalists (and workers) face genuine uncertainty about the consequences of their actions: they cannot know whether these will realize their intentions. Indeed, the economy's endogenous spatiality reduces the likelihood that intentions will be realized.[17] Second, intersectoral interdependencies are fungible. Every shift in prices and location patterns, even when technological interdependencies remain unaltered, can alter spatial interdependencies (i.e. trade flows). Uneven geographical development can evolve, then, in a variety of ways (Bergmann, 2011).

Elsewhere, we have explored the implications, for mainstream and radical economic trade theories, of this entanglement (Sheppard and Barnes, 1990). Marxisant theories demonstrated how the entanglements of economy undermine modern trade theory's factor-abundance based principle of comparative advantage. Yet this critique remains incomplete, because it presumes that geographies are fixed (and that labor and capital are exogenous to the economy). If no unambiguous basis for comparative advantage can be established except in equilibrium (of which, more below), then the possibility that trading territories each benefit from specialization and trade is further compromised.[18]

Such complications would need to be teased out in Marxist theories of international trade before making definitive judgments, but they do imply:

> *Proposition 1*: incorporating transportation as an endogenous sector of commodity production can

undermine central claims of existing mainstream and Marxisant trade theories.

A second entanglement of space is territoriality. The world is not flat. Nation states are neither equally empowered, nor are they homogeneous, sovereign territorial units with well-defined interests and goals. Yet the inclination in international economics, like realist international relations, is to reduce territoriality to just such units, a territorial trap that Brenner dubs methodological nationalism (Agnew, 1994; Brenner, 2004). By treating nation states as separate units of analysis, methodological nationalism also has the effect of aligning them onto a single teleological development trajectory along which free trade lifts all boats (Sheppard, 2011b).

Nation states differ vastly, of course in size and internal coherence, itself a difficult problem for methodological nationalism. Beyond this, they are differentially empowered with respect to one another. One way of conceptualizing this unequal relational power is through sociospatial positionality (Sheppard, 2006). Sociospatial positionality is relational, reminding us that locational (dis)advantage cannot be reduced to an exogenous geography – e.g. tropicality or landlockedness – redolent of environmental determinism (Sheppard, 2011b). Differences in positionality form the basis for distinct interests, perspectives, identities and strategies. Positionality is continually socially (re)constituted, in ways that often reproduce, but on occasion reconfigure, these differences and inequalities (Leitner et al., 2008).[19]

Nation states are differently positioned within the global economy, in ways that reflect, reproduce, but also contest existing power relations. Trade theories that do not take this into account make the same mistake as microeconomic theories in which all economic agents are presumed equal – price takers but not market makers. It creates a convenient fiction – a flat ontology that allows questions about inequality to be set aside. Such positional differences are assumed away in the bulk of mainstream and post-Keynesian trade theory (except for north–south models, and recent mainstream work incorporating geography as fixed relative location).

Two examples suffice to show how sociospatial positionality matters. England's hegemonic position within global capitalism in the 18th century enabled it to destroy India's well-developed cotton textile industry, relocating textile production to the Manchester region and turning India into a provider of raw cotton. Its Methuen Treaty with Portugal similarly undermined Portuguese manufacturing. Turning these countries into primary commodity exporters, as if this were their 'natural' comparative advantage, generated asymmetric trade relations that systematically advantaged industrializing England relative to increasingly dependent trade partners. After adopting free trade in 1846, England tried to convince other European countries, and the USA, to accept their position within this international division of labor that concentrated manufacturing in England. Yet Germany and the USA developed industrialization and tariff policies that eventually enabled them to surpass England (which then abandoned free trade). After 1944, a newly hegemonic USA has promoted the free trade doctrine – now facing similar problems to those plaguing Britain a century ago.

Marxist trade theorists presuppose a binary positionality, separating core from peripheral world regions. This fixed sociospatial positional differentiation provides a fixed datum for their quasi-equilibrium analyses of unequal exchange. Consider, however, the emergence of selected manufacturing powers within the third world. Thus South Korea and Taiwan came to occupy favorable positionalities by comparison to other formerly colonized countries, due to their geostrategic position in Cold War struggles in Asia and the pursuit of state-centric policies of 'getting the prices wrong'

(Amsden, 1987; Wade, 1990; Webber and Rigby, 1996), shifting from primary commodity to manufacturing commodity exporters. China currently is transforming itself (and global trade flows) through a similar strategy, taking advantage of its size, and the power and determination of its central state, to not only attract low-wage export assembly but also now undertake technology-intensive production, both for global markets and the domestic market (if wages are indeed permitted to rise).

Marxist trade theorists tendentially stress one aspect of unequal sociospatial positionality: how powerful nations historically have used that power to turn international trade to their advantage, creating asymmetries and dependencies that fly in the face of the free trade doctrine. Yet, as this last example demonstrates, sociospatial positionality can reconfigure as well as reproduce positionalities: on occasion, the multiple gaps and contingencies underlying all power relationships enable a broader power shift. Given their complex dynamical nature, such possibilities and contingencies remain unpredictable, but their conditions of possibility can be theorized:

> *Proposition 2*: By attending to the sociospatial positionality of territorial units geographical political economy can contribute to theorizations of periodic restructurings of trade relations and uneven geographical development.

The entanglements of connectivity and territoriality entail a third aspect: space/time. Marxian theories of the capitalist space-economy fundamentally question the utility of examining potential equilibrium outcomes – the dominant predilection in mainstream economics (where even the possibility of multiple equilibria has been controversial). Agents cannot be presumed to know equilibrium outcomes and act on the basis of such knowledge, particularly given the additional complexities and possibilities of unintended consequences in a spatially differentiated economy (Sheppard, 2011a). Even in geographical economics, seemingly rational actions taken far from equilibrium need not drive the space economy toward equilibrium (Fowler, 2007, 2011), and individuals frequently do not act on the basis of perfectly rational calculation of their self-interest anyway (cf. Thaler and Sunstein, 2003). Beyond this, conflicts of interest about the distribution of the economic surplus among different classes of economic agents (workers' wages, capitalists' profits, resource owners' rents) have the potential to destabilize any equilibrium outcome that is serendipitously reached (Sheppard and Barnes, 1990). In the real world, trade is not in balance, markets do not clear, labor and capital are often underemployed, and profits are positive (e.g. Fletcher, 2009; Subasat, 2003; Unger, 2007). It is thus strange that even Marxisant trade theories have focused on equilibrium outcomes.

Attempts to theorize trade as an evolutionary process, often far from any potential equilibrium, remain rare. Marxisant approaches occasionally narrate accumulation dynamics mathematically, to determine the conditions under which equilibrium is an emergent feature or what kinds of out-of-equilibrium dynamics result (e.g. Bergmann et al., 2009; Duménil and Lévy, 1993; Foley, 2003; Webber and Rigby, 1999). Yet none of these have incorporated spatiality, addressed commodity trade, or attended to destabilizing struggles over the economic surplus.[20]

> *Proposition 3*: Entanglements of economy and space require an out-of-equilibrium theorization of trade and uneven development, incorporating evolutionary and historical perspectives (e.g. Smith and White, 1992).

2 Entanglements with the more-than economic

Consider, first, governance. It is necessary to conceptualize the multiscalar context shaping the national territories whose boundaries define

what is counted as international trade. Nation states' actions are embedded within shifting supranational frameworks (the United Nations, the World Trade Organization, international financial institutions, the Group of 77, transnational corporations, global finance markets, ATTAC, the World Social Forum). This constitutes a geopolitics of trade, which nations are unequally empowered to influence and which unevenly shapes actions at the national scale (cf. Gibb and Michalak, 1996; Grant, 1993, 1994; Hughes, 2006; Poon et al., 2000). Nation states also are territorially and socially differentiated into subnational, and transcended by transnational, regions, which also shape, and are shaped by, national-scale trade and industrial policy. Geographical political economists have contributed to a powerful theorization of the production and politics of scale (cf. Brenner, 2001; Collinge, 1999; Delaney and Leitner, 1997; Leitner and Miller, 2007; Swyngedouw, 1997) that has yet to be applied to global trade. As for sociospatial positionality, interscalar relations are shaped by unequally empowered agents, with contestation making possible reconstitutions of scales and hierarchies. Power need not emanate from the top (contra Marston et al., 2005), or the bottom (as micro-economic theory asserts), and occasionally is up for grabs.

I turn now to the ways in which the economic is entangled with culture, emotion, identity, discourse and materialities. Notwithstanding the centrality of such entanglements to contemporary scholarship, geographical political economists have had very little to say about how these are co-implicated in the production processes associated with the transfer of commodities from place to place (i.e. commodity trade). This has left aside important theoretical and empirical issues. Theoretically, as discussed above, trade is bound up with the production of a quintessentially geographical commodity: accessibility. Even the most diehard value theorist must accept that transportation produces value (Marx, 1885 [1972]: Chapter 6; Sheppard, 1990, 2004). Empirically, logistics remains a sector of major economic import, particularly in our heavily globalized world. One of the most immediate dramatic impacts of the 2008–2009 global crisis was on freight transportation: around the world, containers piled up in ports, ships were idled outside harbors, logistics companies faced crises of profit realization, and economies based heavily on logistics (e.g. Singapore) were thrown into a particular kind of crisis. Yet this peculiar, mobile, arena of commodity production and profit realization remains largely neglected – a most unfortunate lacuna that has left transportation geography somewhat adrift from geographical political economy. Here, I can only gesture toward how such entanglements with the more-than-economic can be incorporated into a geographical theory of global trade.

Commodity trade has always been entangled with culture. From the earliest days, traders have acted as cultural brokers – embodying the mobility of cultural difference between places, and posing problems for societies that seek to take advantage of their space-transcending proclivities while retaining already-existing cultural norms. A persistent strategy was to confine 'foreign' traders to peripheral spaces in receiving societies (cf. Curtin, 1984; Sjoberg, 1960). The process of trade itself is encultured. Forms and norms of exchange resonate with cultural difference (cf. Gudeman, 2001, 2008). Participants in those places through which trade is realized – ships, trucks, airplanes, and markets – find their economic activities bound up with their (often) itinerant identity as traders (cf. Berndt and Boeckler, 2009; Casale, 2007; Hughes, 2007; Robins, 1995). Traded commodities also are entangled with culture – many of the cultural debates about contemporary globalization have revolved around the question of the degree to which global vectors of trade constitute a stalking horse for western cultural hegemony, or are productive of cultural hybridity and difference. With respect to gender and

sexuality, as particular aspects of identity, there has been considerable research into the gendering of places of both trade and transportation/communication. Marketplaces, real and virtual, are highly gendered, in ways that vary geographically and often are contested (cf. McDowell, 1997; Mandel, 2004; Mintz, 1971; Seligmann, 2001; Wright, 2004). The same is true within vehicles producing the accessibility that makes trade happen (cf. Bunnell, 2007; Fajardo, 2008; Norling, 1996).[21]

Entanglements of trade with the more-than-human world fall into two overlapping but somewhat separable themes.[22] First, there is the question of how trade is entangled with 'nature'. A number of geographers have examined this with respect to particular commodities: the ways in which the materialities of, particularly, primary commodities co-mingle with the trade and commodity chains that bring them to first world consumers (e.g. Cook et al., 2004, 2006; Whatmore, 2001; Whatmore and Thorne, 1997). There are, of course, much larger questions about how global trade vectors, and the processes driving these, are entangled with nature at broader scales. What is the carbon footprint of global trade; how is this distributed geographically; whose responsibility is it? How does free trade compound the ecological unsustainability accompanying capitalism's accumulation imperative (Harvey, 1996; O'Connor, 1998)? Is local trade more sustainable, and if so how can it be encouraged and what are its implications? There has been considerable theoretical and empirical research into these questions outside geography (Hertwich and Peters, 2009), but their complex spatialities remain under-researched (Bergmann, 2010).

Second, the entanglements of trade with materialities connect with questions of science and technology (cf. Latour, 1987; Pickering, 1995; Stengers, 1997). Contesting attempts in mainstream trade theory to treat technology as a malleable capital input whose evolution is either treated as exogenous to the economy (a time trend), or endogenously as 'human capital' (e.g. the new growth theory: Romer, 1990), geographical political economists have taken up the insight from science and technology studies that technology is neither exogenous to nor reducible to political economic processes. The pressure for new trading, transportation and communications technologies is central to capitalism; they accelerate the production and circulation of commodities (shortening turnover times and thus increasing profit rates) and extend the geographical reach of trade and production networks (enhancing capitalists' and states' capacities to eke out the economic opportunities associated with geographical inequality and difference). Technologies co-evolve with, helping constitute, trading practices and possibilities in marketplaces – enhancing and disrupting market functionality (Callon, 1998; Mackenzie, 2009; Mackenzie et al., 2008). This is also the case for the vehicles transporting commodities, whose functionality and capacity depend on geographical knowledge, and emergent geographical technologies of navigation, transportation and communication (particularly, today, electronic trade and commerce) (Dodge and Kitchin, 2004; Latour, 1993; Law, 1996; Zook, 2005).

> *Proposition 4*: Entanglements with the non-economic profoundly complicate theorizations of trade, in important, ill-understood ways.

VII Conclusion

Trade theory, as developed within mainstream international and geographical economics, has been constructed in a way that supports the free trade doctrine. Recent work, sometimes invoking geography, has posed important questions about the doctrine, albeit framed as exceptions to it. I have argued that this has been possible through a conceptual framework that disentangles trade theory from multiple processes that are, in fact, entangled with trade in practice: spatiotemporality, politics, culture, identity, nature, technology. This disentanglement

makes it possible to present free trade as superior to its alternatives (free trade good; protectionism bad).

By refusing such disentanglements, Anglophone geographical political economy can decenter the free trade doctrine. Careful attention to entanglements of space, particularly connectivity, suffices to call into question mainstream trade theory's hard-core propositions (Table 1). Taking into account the (often difficult to realize) attempts of differently positioned agents within a capitalist space economy to realize individual gain confirms what has become a consensus position within geographical political economy: capitalism is generative of the very sociospatial inequalities that mainstream theorists expect it to overcome. The entanglements of geopolitical positionality and temporality clarify that the postcolonial global south was not simply a victim of historical circumstance. Rather, these regions have been compelled into disadvantaged specialization, historically in primary commodities and now in low wage export-oriented assembly production, as a result of the actions taken by the firms and governments, and at times organized labor, of wealthy powerful capitalist countries – often in the name (if not the practice) of free trade. Certain postcolonial countries have fought their way out of this trap, through state-led actions to alter the terms of their 'comparative advantage'. A consequence of this has not only been deindustrialization and lowered working conditions in parts of the global north, but a polarization between emergent manufacturing economies, particularly in east, southeast and south Asia, and the remainder of the global south.

Re-entangling trade with the more-than-economic further complicates these processes. Other than confirming that unequal sociospatial positionality affects the ability of people and places to shape and gain from global trade vectors, and that these vectors will inevitably be shaped by more than economic processes in complex ways, few broad conclusions have been drawn. Perhaps this reflects the shortage of global-scale geographical scholarship examining the broad contours of these entanglements of trade, notwithstanding many illuminating local case studies.

There are profound consequences associated with replacing the sociospatial ontology of mainstream international economics (i.e. microfoundations, methodological territorialism, and flat or exogenous geographical backcloths) with the relational and dialectical sociospatial ontology of geographical political economy. First, as others have argued, this shift fundamentally calls into question modernist teleological accounts, in the spirit of Walter Rostow (1960; Sachs, 2005), of development as a universal sequence of stages that all countries can and must pass through to attain prosperity – emulating the USA and other 'advanced' capitalist countries (Blaut, 1993; Massey, 1999; Sheppard, 2011b). Rather, the produced geopolitical and socionatural geographies of uneven development that inevitably have accompanied globalizing capitalism require that peoples and territories of the global south break the chains of the free trade doctrine, if they are to escape impoverishment.

The free trade doctrine, mobilized by narratives of capitalism's capacity to conquer poverty, concludes that free trade is always better than its alternatives. Geographical political economy's narrative of capitalism as continually (re)creating sociospatial inequality undermines this claim, implying that the variety of alternatives is worthy of exploration and examination. Some are narrow forms of protectionism: state-led interventions into territorial trade policy that seek to tweak capitalism when it undermines the constituted interests of a territory. Protectionism can be venal, seeking to enhance the interests of territorial elites or powerful states at the expense of others.[23] Yet it also may be used to protect disadvantaged groups and territories from the ravages of uneven development (Fletcher, 2009; Stiglitz and Charlton, 2005).

Turning to entanglements with more-than-capitalist logics, a variety of other alternatives lie beyond such state-led interventions. Geographical political economists have examined such alternatives as fair trade initiatives, alternative food networks, and LETS (Hughes, 2005). There was also the Soviet Union's Council for Mutual Economic Assistance (COMECON), and now Chavez's Bolivarian Alternative for the Americas (ALBA; Harris and Azzi, 2006). These resonate with more-than-capitalist exchange and production (Gibson-Graham, 2006): barter, Ithaca hours, exchange values incorporating living wages and environmental protection, and the politics of trading Cuban doctors for Venezuelan oil.

There are no panaceas, of course: 'The best-laid schemes ... Gang aft agley' (Burns, 1786). Others have documented how alternative logics can become absorbed into capitalism (e.g. Walmart marketing fair trade coffee; Nestlé selling organic baby food), or compromised by the conflicting interests and unequal power relations of participants in trade (cf. Fridell, 2006; Raynolds and Long, 2007). Yet the answer to the deep problems of the free trade doctrine cannot be a ban on trade. Instead, geographical political economy can and should contribute to creating an intellectual space that acknowledges and critically assesses alternative trading movements and initiatives, rethinking and decentering this foundational doctrine of free market capitalism.

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Notes

1. Other economists acknowledged that colonialism played a role in the polarization, albeit primarily in terms of how it imposed poor governance on the colonies (Acemoglu et al., 2002).
2. But see Neary (2009).
3. Garretsen and Martin (2010) examine the implications of points (4) and (5) for both geographical economics and economic geography.
4. Çagatay (1994) provides a concise overview of the differences between mainstream, post-Keynesian and Marxian trade theories.
5. Marx's critique of capitalism is based on the divergence of labor value (the socially necessary labor time to produce a commodity with dominant technologies) from prices of production (the market prices that enable equal average profit rates in all sectors/regions). This divergence creates exploitation, and struggles over the distribution of economic surplus between economic classes.
6. The abstraction that forms the basis of Marx's theory of value was implicitly conceptualized at the scale of a national economy. Even his notes for a fourth volume of *Das Kapital* offer few clues about how Marx would have theorized value, trade and production at the supranational scale (Marx, 1862 [2000]: Chapter 17).
7. I replicate Shaikh's problematic, developmentalist, terminology to be faithful to his account.
8. In fact, gold flowed from Portugal to England. Portugal's deteriorating terms of trade meant that much of the gold exported from Brazil to Portugal ended up in England (Sideri, 1970).
9. The emphasis in Emmanuel, Shaikh and Amin on core-periphery issues has been taken up by other development economists as 'north–south' models. Indeed, Krugman's initial foray into international economics was such a model, producing results that are 'reminiscent of the Hobson-Lenin theory of imperialism' (Krugman, 1981: 149). These approaches have had no significant impact, however, on mainstream theory (Darity and Davis, 2005).
10. Shaikh criticizes Amin for the 'crucial error' of assuming that intra-industry profit rates will equalize, instead of reflecting interfirm differences in efficiency and technology.
11. The neoclassical parable is only guaranteed under the unrealistic presumption that there is no intersectoral independence (a widely adopted disentanglement) –

or every sector of each economy uses the identical mix of inputs from other all other sectors. Ironically, under these unrealistic conditions, Marx's solution to the transformation problem, foundational to value theory, is also immune to mainstream critiques (Harcourt, 1972; Sheppard and Barnes, 1990).

12. Sraffa also shows that wages and profits are not determined by marginal productivity: it is impossible to determine wages, profits and commodity prices endogenously. Sraffa's hypothesis, like Ricardo and Marx, is that the distribution of the economic surplus is determined through social and political struggle.
13. Joan Robinson (1953–1954) had already pointed out the impossibility of independently measuring the quantity of capital.
14. It is worth noting that developing a feminist approach to trade theory has been an active area of recent research (Elson et al., 2007; Van Staveren et al., 2007). To date, this has involved incorporating issues of the gendered division of labor, care, and gendered inequality into existing theories.
15. Examining networks of ISI-Thompson citation analyses with histcite.com reveals little in the way of rich threads of discussion catalyzed by these early writings.
16. The entanglements of economy are already incorporated in Marxisant theories, and thereby here. Those with more-than-capitalist economic logics are reserved for the conclusion.
17. Harvey (1982: 176–189) regards this as the equivalent, for capitalists, to Marx's thesis about the tendency of the rate of profit to fall.
18. The implications of this approach for the 'new' trade theory remain unclear. Note, however, that the latter neglects intersectoral interdependencies (cf. Figure 2), assumes that all firms (and thus sectors) use identical technologies, and presumes a zero-profit (net of fixed costs), balance-of-trade equilibrium. Geographical political economy has the capability of analyzing 'intra-' and inter-industry trade without making such assumptions.
19. Here, I restrict discussion of sociospatial positionality to the macro scale, mindful of how any territory is riven by heterogeneities that reflect the different sociospatial positionalities of its inhabitants.
20. Bergmann (2011) analyzes the first two.
21. Interestingly, the limited geographical scholarship on gender and transportation has tended to focus on short distance personal commuting and daily travel; to date, the study of identity and long distance freight transportation has been dominated by non-geographers (Goetz et al., 2009).
22. I do not discuss discourse here: a central aspect of the extensive literature on neoliberalism concerns the shifts in discourse bound up with the propagation of free trade imaginaries and practices since 1980.
23. For example, US, Japanese and European Union protectionist subsidies for their farmers, or Chinese policies that advance the interests of capitalists over those of workers.

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