4 Embedded Local Growth: A Theory Taken too Far?

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4.1. Introduction

Currently, economic geography, along with many other areas of the social sciences, is firmly linked to a theoretical approach that seeks to explain local economic growth in terms of the embeddedness[1] of business enterprises in small-firm social networks. These networks are conjectured to mobilise knowledge, stimulate innovation and create competitive advantage through enhanced productivity. Variants of the approach are labelled as 'regional innovation systems', 'innovative milieu', 'learning regions' and, of course, 'clusters' (Porter, 1998, 2000). These increasingly self-referential, institutionalist literatures emphasise the social construction of economies, the importance of social capital and the fundamental role of institutional structures in shaping and driving those economies. The layers of reasoning in these approaches amount essentially to a 'soft' version of the endogenous growth theory that economists have built around the stylised facts of 'local human capital', 'specialisation', 'competition' and 'agglomeration' (Glaeser 1995, 2000). The 'embeddedness' approaches, however, use a different but equally stylised set of facts as explanators; 'institutional thickness', 'trust', 'learning' and 'social capital', for example. It can be suggested that what has been created is an institutionalist theoretical straightjacket, a complex edifice that is weakly and selectively grounded in reality.

The straps of this theoretical straightjacket are pulled ever tighter by the strong policy appeal of this embeddedness explanation of local economic growth. Now incarnated as 'cluster' policies in many developed economies (DTI 2000, Bergman *et al* 2001, Porter and Ketels 2003) and as World Bank development policies in developing countries, the policy appeal of the theory stems from its underlying contention that local economies are the authors of their own fates. Current wisdom is that, with the right local networks, local levels of trust, learning, competencies, social capital, and institutional support, a place can generate local social capital and can become innovative, productive and internationally competitive within a global mosaic of economic activities. Set the right conditions in place, it is implied, and growth and local prosperity

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will follow. However, if no growth occurs then obviously that 'place' did not set the conditions appropriately and growth will only be achieved when those settings are right. By inference, therefore, globalisation has marked the end of exogenous economic exploitation since even transnational corporations, it is argued, must necessarily be as locally embedded as their Small- and Mediumsized (SME) counterparts, and must be somehow 'less foreign' (Yeung 1998): would mean that planning was so simple, or business so naïve.

As this 'embeddedness' model has been transformed into a mantra, a major question that has not yet been asked is whether the model provides a reasonable explanation and understanding of local growth processes. Or is it, instead, an explanation built on a small number of exceptional case studies overlain by layer upon layer of interpretation, re-interpretation, conjecture and extrapolation? The purpose of this chapter is to begin to address these two questions. The approach is to elaborate the major shortcomings of the model that severely limit its usefulness, even as a heuristic. The argument of the chapter is that the embeddedness model of local economic growth is significantly over-drawn, and over-drawn to the point of being functionalist.

4.2. 'Embeddedness': The model in brief

The institutionalist theory of embedded local economic growth recognises successful local economies as islands of superior productivity, integrated into a global mosaic of production that brings the reward of sustainable local accumulation. That productivity, it is argued, stems from complex processes of 'embedding' - the incorporation of firms into place-based networks involving trust, reciprocity, loyalty, collaboration, co-operation and a whole raft of untraded interdependencies (Storper 1997, Cooke 1998). These are processes that create 'social capital'. They are socially constructed relationships that generate information, ideas, products, services and processes that are, in turn, shared within the system rather than being appropriated by any one individual (Leborgne and Lipietz 1992). They are in this sense the home of classically defined local external economies. The whole is a system of heightened place-based capacities for learning, information and knowledge exchange, technological change and innovation (Maskell and Malmberg 1999, Bergman *et al* 2001). Here, tacit knowledge is exchanged, extended and blended with codified knowledge. The resultants are places of networked knowledge and 'soft capitalism' (Thrift 1998) involving specific assemblages of competencies. They are regional innovation systems driven by intense local processes of

Schumpeterian creative destruction that endow locally networked firms with commercial resilience and the ability to cope with constantly shifting factor mixes (the 'ubiquification' of Maskell *et al* 1998).

However, the secret of local economic success is seen not only in networked inter-firm relationships, but also in the reinforcing of those socio-commercial relationships by a '... supportive tissue of local institutions' (Powell and Smith-Doerr 1994, p. 370). 'Appropriate' institutions, it is suggested, can ease and facilitate network relationships and foster knowledge exchange and learning. They are said to add to and sustain the Marshallian 'atmosphere' of an economically successful place (Amin and Thrift 1994a, 1994b).

This is no more than a very brief caricature of a model that is constantly acquiring new layers of meaning, interpretation and embellishment. Indeed, as a model, its complexity seems to grow exponentially as processes of learning are elaborated, concepts of social capital and intellectual capital and competencies are added synergistically to the stylised facts of trust, reciprocity, proximity and institutional thickness on which it was built and which lie at its core. The purpose of this section has been simply to lay out the main elements of the model as a backdrop to the criticisms that can be levelled against it. Those criticisms are elaborated in the remaining sections of the chapter.

4.3. The questioning

It is argued here that the frenetic publication that currently surrounds the elaboration of the institutionalist model of embedded local economic growth, in all its variants, needs to be tempered with caution concerning both the assumptions on which it is built and the policy outcomes it can achieve. In essence, it is a model developed on the basis of a particular interpretation of a set of apparently successful case studies that has been inappropriately universalised.

The model is now being questioned on a number of accounts. That criticism is challenging the nature and extent of local embeddedness as the foundation of local economic growth. The symmetrical properties of trust, reciprocity and loyalty in buyer-supplier relationships are argued as being either temporary or even illusory and as being fundamentally at odds with the existence and impact of power asymmetries within and between firms (Bresnen 1996, Pratt 1997, Baker 1996, Taylor 2000). The model is seen by some as an a-historic, idealised and romanticised view of inter-firm relationships that inappropriately extends notions of flexibility, is policy driven, functionalist and is perpetuated by selecting case studies 'on the independent variable' (Bianchi 1998, Hudson 1999, Staber 1996, Lovering 1999). What is more, the qualitative research on which the model is built appears capable only of accreting layer upon layer of added complexity without ever questioning whether the conjectured processes are necessary or sufficient, essential or trivial (Plummer and Taylor 2001a, 2001b, 2003).

In this chapter, the model is questioned on six grounds. It is argued that its shortcomings have been created both by omission and commission. By omission the theory is over-drawn in the sense that it fails adequately to consider: (1) the imperatives of capitalism; (2) the impact of unequal power relations and (3) the exigencies of time. It is argued that these parameters impact strongly on the operations and performance of individual firms and enterprises. By commission the model is over-drawn in the sense that it: (1) fetishises proximity; (2) promotes the chaotic concept of '*institutional thickness*' and (3) labours under the limitations of the equally chaotic concept of '*social capital*'. These purportedly key drivers of local economic growth are all open to question. Each of these six areas of criticism are explored in the remaining sections of the chapter.

4.3.1 Neglect of the Imperatives of Capitalism

Principal among the limitations of the embeddedness model of local economic growth is its neglect of the imperatives of capitalism (Hudson, 1999). Fundamental to the operation of the capitalist system is the generation of profits to achieve a rate of return on investments in order to accumulate capital. Something that is essential to the generation of those profits is the operation of the price mechanism that mediates between firms' inputs and outputs and the relationship between capital and labour.

Profits might not be the precise motive for executives' actions in corporations or for the business operations of owners and partners in SMEs. That motive is perhaps now best seen as 'personal wealth creation', in much the same way that Starbuck (1971), amongst others, recognised over 30 years ago that the principal correlate with firm growth is not profits but levels of executive remuneration. Judging from the reports of corporate financial scandals in the US and Europe perpetrated in the past ten years, there is little of the altruism in this motivation that matches with the co-operative communities of interest built on trust that lie at the heart of the embeddedness model of local economic growth. Indeed, the only communities of interest evident in the past decade have been collusive communities of self-interest that have fuelled the excesses of corporate enterprise, commercial banking and financial services throughout the 1990s (The Economist 2003).

It might have been fashionable in the dot.com era of the 1990s to see the 'burn-rate' of capital as more important than profits themselves and to see trust, loyalty and reciprocity as the foundation stones of business and the commercial transactions between firms, especially for e-commerce and e-business. That may well have been the case for at least some of the time during the last decade's period of global economic buoyancy, but the workings of the price mechanism are just as imperative to capitalism as are profits. A number of studies suggest, in fact, that the level and persistence of trust in inter-firm relationships might be rather more illusory than real. Studies as different as investigations of the garment industry in New York (Uzzi 1996, 1997) and business services in provincial cities in the UK (Search and Taylor 2002) suggest that price considerations are always a shadowy presence behind the trusting, embedded and loyal relationships that the embeddedness model promotes. What these studies suggest is that trust and loyalty are important in business only as long as the price is right. Thus, in a period of economic buoyancy, embedded ties may seem paramount. However, in a period of recession, when the chips are down, the primary role of price becomes clear.

Equally central to the capitalist project are capital : labour relationships and the control of labour. At one extreme, these relationships refer to mechanisms for the extraction of surplus value. Put differently, they reflect attempts to control costs in order to maintain profits. Advocates of the embeddedness model, however, emphasise paternalism in labour markets to mobilise labour's tacit knowledge, to enhance learning and innovation and to promote local growth (Brusco 1996). In so doing, they choose to ignore the long-standing processes involved in the New International Division of Labour, the long history of corporate down-sizing and job loss, the history of union struggle, the casualisation of labour, heavy handed workfare schemes, labour's fight for wages, and the self-exploitation of labour associated with new project forms of production and working.

4.3.2 The Underestimated Impact of Power Inequalities

An implication of the embeddedness model is that inter-firm relationships within collaborative networks are benign. However, there is longstanding evidence that this has rarely, if ever, been the case. Power inequalities impact significantly on the way firms do business, a situation recognised in economic geography over 20 years ago in Taylor and Thrift's (1982, 1983) enterprise segmentation model (Dicken and Thrift 1992, Taylor 2000, Bathelt and Taylor 2002). That impact can take at least four forms. First, it has the ability to restrict firms' freedom of action, cementing subordination in buyer-supplier relationships and restricting opportunities for capital accumulation. Second, it can create lock-ins and the ossification of transaction relationships (Grabher 1993b, Glasmeier 1991). Third, it has the capacity to generate uneven spatial development and place-specific spatial divisions of labour (Hudson 1999, Massey 1984). And fourth, it can restrict the skill base and information pool that informs strategic decision-making in business, in particular through class-based appointments to boards of directors (McNulty and Pettigrew 1999).

The variants of the embeddedness model, especially the 'learning regions' variant, treat capital : capital as well as capital : labour relationships as benign. It is cooperation and collaborative equality between firms in industrial districts that is reckoned to mobilise knowledge, induce learning, generate innovation and produce local growth. What is downplayed is the impact that power inequalities have on the way firms do business (Bathelt and Taylor 2002). There is now mounting empirical evidence that suggests that large sections, if not most, of the business environment are far from benign. Instead, asymmetries of power within and between firms are used to exclude, exploit and control network relationships so that the powerful can extract monopoly rents from the powerless.

The use of power to exclude businesses from enterprise networks has been demonstrated recently in relation to business activity in Fiji (Taylor 2000, 2002) and Israeli Arab entrepreneurs (Sofer and Schnell 2002, Sofer et al 2001, Schnell et al 1995, 1999). To achieve rates of return set by overseas parent firms, transnational corporations (TNCs) in Fiji were willing to develop what would otherwise be called 'embedded' relationships, involving trust, loyalty and repeat business with only larger local businesses. The smallest local firms were excluded from this form of business and were restricted to cash-only, single transactions. In Israel, Jewish business has been shown to exclude Israeli Arab businesses from their buyer-supplier networks (Sofer and Schnell 2002), leaving Israeli Arab business to become 'over-embedded' in the Arab community in order to cope and subsist. Indeed, embeddedness as 'coping', as it is found in developing countries, is hard to reconcile with the embeddedness model and the processes that are supposed to generate social capital.

The use of power to exploit is evident in studies of the nature of employment in the burgeoning cultural industries, including advertising and marketing, publishing and popular music (Ekinsmyth 2002, Grabher 2001) that have most fully embraced the emerging 'project' approach of production. Pulling together short-lived project teams to advertise, publish and create music, for example, can be interpreted as the self-exploitation of labour. The creation of those teams depends on friendship networks, word-of-mouth recommendation and proximity, coupled with insecurity, impermanence, a reluctance to turn down work and a need always 'to be there'. This current variant of self-exploitation is just as much a treadmill as sweat-shop production and subcontracting in the garment industry, but one that forces people to ratchet up their own work rates in a way that Taylorism was never able to do. This same self-exploitation of labour born of enterprise embeddedness was also evident in Openshaw and Taylor's (2002) exploration of UK electronics subcontractors, where agency workers and homeworkers are used as mechanisms to bring flexibility to the labour market and to facilitate the avoidance of sunk costs in business.

The use of power to control business relationships is a well-established and important business tactic. It condemns businesses to performing tightly defined roles in enterprise networks in the manner outlined by Taylor and Thrift (1982a, 1982b, 1983) in the enterprise segmentation model they proposed twenty years ago. Empirically it has been shown that the subordination of firms within enterprise networks limits who they can deal with, the contractual arrangements under which they can do business and the sources of capital available to them (Taylor 2000). Nowhere is this control of business relationships clearer than in buyer-driven commodity chains. It has been demonstrated by Wølneberg (2002) in relation to Argentina's tanning industry and by Taylor (2002) in relation to Fiji's garment industry, though Gereffi (1994, 1999) and others would argue that network relationships also have the potential to stimulate learning and technological upgrading in commodity chains.

4.3.3 Time and the 'Institutional Instantaneous'

At the heart of the embeddedness model of local economic growth is the implicit assumption of what might be termed the 'institutional instantaneous' - the unproblematic and atemporal translation of socially networked inter-firm relationships into structures of instant knowledge mobilisation and exchange, learning, innovation and social capital. The 'institutional instantaneous' is, in this sense, the equivalent of the assumption of the perfect mobility of capital in economics. Its effect, however, is to all but deny the path-dependent, sequential development of socially constructed economies, notwithstanding the significance of those mechanisms as they have been recognised in evolutionary economics.

Staber (1996) has remarked that studies of embedded local growth have tended to select case studies 'on the dependent variable'. In other words, they have selected localities, like the Third Italy or Baden Württemberg, which are considered to be 'successful'. That success is then attributed to the nature of the current business and social environments of that place and the network relationships that link firms locally. In short, these types of study extrapolate cross-sectional analyses to conjecture dynamic relationships. The key question is whether the revealed relationships between businesses in a place are:

- the currently prevalent relationships that can create growth;
- relics of past relationships that once created growth, but are now being superseded; or
- portents of future business relationships that might bring a very different local economic outcome?

Empirical studies suggest that any of these situations might be the case. For example, embedded ties might currently be creating local growth in Spain (Pallares-Barbera 2002). However, in South Hampshire, in the UK, embedded ties have been interpreted as no more than a relic of a successful past (Openshaw and Taylor 2002).

This ambiguity surrounding the role of time in the model undermines some of its key elements. A central plank of the embeddedness model and the cluster policies it has spawned is that the 'local engagement' or local networking of businesses (what was once called 'local linkage' (McDermott and Taylor 1982)) is the key to local economic growth. Cross-sectional studies and the implicit assumption of the 'institutional instantaneous' do nothing to challenge the plausibility of this assertion and there are few longitudinal studies to challenge its veracity. One of the fullest sets of evidence on this issue is from the West Midlands in the UK. The evidence draws on re-surveys of a panel of firms. It suggests, however, that growth at firm level is associated with their disengagement (disembedding) from the local economy, with the corollary that those that do not disengage fail (Taylor 1978, Taylor and Thrift 1982b). When added to Curran and Blackburn's (1994) exploration of 'the death of the local economy', there is every reason to suggest, therefore, that the inadequate treatment of time in the embeddedness model has the potential to be seriously misleading.

4.3.4 The Fetishising of Proximity

The assumption implicit in the embeddedness model is that 'embedded' equals 'local'. Oinas (1997, p. 29) has argued that there is no reason why this should be so and that entrepreneurs and business people can be embedded in social relations at different spatial scales. As she has argued (p. 30), we need to know how firms are locally embedded, whether being locally embedded helps or hinders change in both firms and localities and whether extra-local embeddedness can encourage or inhibit change under different circumstances.

The results of empirical analyses allow no clear-cut conclusions to be drawn. The weight of cross-sectional studies supports the need for proximity to achieve growth (see Maskell *et al* 1998, Braczyk *et al* 1998). However, a number of recent studies add caveats to the importance of proximity as a driver of local growth. Search and Taylor's (2002) study of non-metropolitan business services in the UK shows that proximity is important but only for small firm solicitors and accountants. A study of the UK electronics industry (Openshaw and Taylor 2002) also supports this interpretation. However, the support it gives is strongly time-dependent. In this study, the strongest embedded local business relationships persisted only as long as government policy continued to invest heavily in the defence industries of southern England, where the case study was conducted. However, proximity need not be spatial, it can also be emotional. This point has been made forcefully by Hardill *et al* (2002) in a case study of Asian businesswomen in the UK. The study showed strongly that the connections of these businesswomen were with an imaginary and emotional 'home' extending beyond the UK to the Indian subcontinent, not a 'home' based on juxtaposition and proximity in a narrow geographical sense.

What these studies suggest is that 'proximity' is in some cases necessary for the creation of embedded business ties and local growth, but it is rarely a sufficient condition to achieve those goals. Time, social relationships and institutional support are seemingly intimately intertwined with the issue of proximity and, together, they are just as likely to generate economic ossification and 'lock-in' as growth.

Indeed, does learning within business networks require proximity and 'locational integration'? Gereffi (1994, 1999) and others have argued strongly that the transnational organisational linkages of global commodity chains have the potential to facilitate knowledge transfer and 'learning' that is not dissimilar to the processes identified as economic drivers in 'clusters'. Notwithstanding the power asymmetries in these commodity chains, it has been suggested that these learning processes can foster 'industrial upgrading' in the lower levels of the commodity chain (Gereffi 1999, Hsing 1999). This upgrading can involve firms engaging in product elaboration and a shift to complex, expensive, large volume, high end products, a shift to flexible production, beginning with original equipment manufacturing (OEM) and original brand manufacturing (OBM) and, at a regional scale, the development of a locally integrated production system (Gereffi 1999, p. 51-52). Whether the world is always so simple is open to debate, but the suggestion is quite clear that 'learning' in economic systems and the creation of social capital need not always involve proximity.

4.3.5 Institutional Thickness

'Institutional thickness' is a frustratingly imprecise and profoundly unhelpful concept that appears to have grown, amoeba-like, in meaning to accommodate ever-changing interpretations of this 'supportive tissue' which is said to lie at the heart of embedded local economic growth. It is argued here that it is a chaotic concept that obscures more than it illuminates.

For Amin and Thrift (1994a), the economic success of a locality is heavily dependent on its "proven institutional capacity" (p.16). Moreover, that capacity or 'thickness' is said to derive from: (1) a numerous and diverse mix of institutions (local firms, public initiatives, private institutions and so on) (2) frequent interaction to promote collaboration and knowledge transfer (3) structures of coalition to control behaviour and (4) a common agenda among those local institutions. These factors are reckoned to create institutional persistence and flexibility, heightening trust and reciprocity and local inclusiveness.

However, appealing as this specification might appear, it does not stand the test of empirical scrutiny. A growing number of studies suggest that 'institutional thickness' does not always bring economic success to an area or endow it with resilience when hit by recession. It can also serve to exclude rather than collaboratively include enterprises in a local economy. In this respect, interesting questions arise as to whether 'institutional thickness' pre-dates or post-dates economic growth or whether institutions always remain supportive.

MacLeod (1997), working in the Lowlands of Scotland, has described the area as having "... a strong institutional presence, a commitment towards partnership, governance sociability and the sense of a common enterprise (p.302). However, this had not been sufficient to bring economic success to the region. The region had developed as a low-wage manufacturing region and jobs created by inward investment had been associated more with quantity than quality. The subsequent drive by localist and central state institutions to increase the innovative capacity of the area was at odds with these existing institutional arrangements and led to 'institutional overkill' (MacLeod 1997).

In Turkey (Eraydin 2002), the institutions of government and civil society appeared to create 'institutional thickness' along with local enterprise networks, learning and information exchange. However, recession and the almost immediate retreat of firms to long-established cost-cutting strategies showed that this 'supportive tissue' in fact provided no economic resilience.

Wølneberg (2002) has shown, in the context of the Argentinean tanning industry, that not only can local institutions be ineffective in generating self-sustaining local growth, but the actions of international institutions (in this case the World Bank and the EU) can erode what little local benefit they might have created. MacLeod (2001) has identified this same scalar conflict in the actions of institutions in his study of Lowland Scotland. And, Raco (1998) has identified a similar situation in Cardiff, not least because in this case "... localist and central state institutions may promote very different objectives" (p.989). Indeed, the failure to consider the impact of state decisions has been viewed by MacLeod (2001) as a major flaw in the institutional thickness concept.

Nevertheless, there is also evidence that in some cases 'institutional thickness' can marginalise and exclude some groups within local economies. This tendency has been shown in Sheffield by Raco (1998) and Fiji by Taylor (2002). Indeed, as Raco (1998) has shown for Sheffield and Hudson (1994) has shown for the Northeast region of the UK, 'institutional thickness' can ossify local social, economic and political relations and divisions, stifling mutual co-operation and halting progress.

Further undermining the usefulness of the concept is the question raised in some empirical analyses as to whether 'institutional thickness' actually post-dates economic growth rather than pre-dating it, as is usually assumed. Henry and Pinch (2001) have raised this complication based on their research on Motor Sport Valley. Growth in this specialised engineering cluster was based on institutional *thinness* rather than thickness - two core institutional configurations, the network of firms and the knowledge pool of the labour market. Success came from a process of churning of staff, firms and linkages. Economic success in the absence of thick institutional structures has similarly been identified in Cambridgeshire's hi-tech cluster (Keeble et al 1999), Bristol's natural history film industry (Bassett et al 2002) and the British high fidelity industry in South East England (May et al 2001).

Compounding this awkward issue of whether institutional thickness is a cause or a consequence of local economic success is the additional complication that the motivation and goals of an institution may change dramatically over time. This situation has been spelled out in detail in Leonard's (2002) examination of training provision in London, and it serves to underline the complexities of time inherent in the institutional thickness concept.

However, at the core of the concept of institutional thickness is the issue of what exactly are institutions? Are they simply organisations by another name as Jessop (2001) has complained, or are they something more subtle and as yet imperfectly understood.

4.3.6 Social Capital

An equally problematic and chaotic set of ideas that plays a central role in the embeddedness model of local economic growth is the concept of social capital. Social capital relates essentially to networked social and business relationships in a place based on trust, reciprocity and loyalty. It has been defined by Putnam (2000) as the, "connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them." (p.19). According to the World Bank (2002), "social capital refers to the institutions, relations and norms that shape the quantity and quality of a society's social interactions". For Bowles and Gintis (2002), "social capital generally refers to trust, concerns for one's associates, a willingness to live by the norms of one's community and to punish those who do not" (p.1).

These quotes, however, serve to illustrate Durlauf's (2002) contention that this is a confused and chaotic concept because it mixes both causal and functional elements. The functional element is evident in the set of norms and values social capital is said to provide which facilitate co-operation and efficiency. In this sense, social capital can, for example, reduce networked firms transaction costs. The causal element of social capital emerges because the co-operative behaviour of others makes the co-operative behaviour of individuals a rational choice. Woolcock (1998) has expressed this same concern in different terms. While, on the one hand, social capital can be understood as the ties and norms that bind individuals in and across groups it can, on the other hand, act as a moral resource used to define different status groups in a community. Defined so widely, it is difficult to identify whether social capital is the infrastructure or the content of social relations - it becomes impossible to separate what it is from what it does.

Nevertheless, even in a causal context the concept of social capital has been challenged. While rational choice theorists regard it as an interaction between rational agents resulting in mutual benefit (Glaeser *et al* 2002), network theorists see social capital as social ties that can be non-rational

(Woolcock 1998). Here, a further element of confusion appears because it is unclear whether that choice is made because of altruism and fairness in a community, or because of fear of retaliation. Just to add more shades of complexity and confusion, there is no reason why social capital should only be positive and not negative (or 'perverse') - as with the activities of the Mafia or the restrictive social structures of some societies and immigrant groups (Portes and Sensenbrenner 1993). Indeed, there is an instrumental bias in the social capital literature that highlights its positive impacts while neglecting or ignoring the 'free-rider' and opportunist potential of network relationships.

It is hardly surprising, then, that social capital is difficult to measure. It is theoretically vague and has the potential to both enhance and destroy human and physical capital. It is difficult to know whether it is a causal or a functional concept and whether it refers to the infrastructure or the content of social relations. Is it the product of rational choice or irrational decision-making? Indeed, it can be argued that the meaning of 'social capital' is so vague that it is, in fact, meaningless. Perhaps Arrow (2000) is right and the term should be abandoned in favour of exploring alternative forms of social interaction.

4.4 Conclusion

Quite clearly, the currently fashionable theory of embedded local economic growth and 'clustering', and associated 'cluster' policies, have significant disabling limitations.

The theory neglects the imperatives of capitalism, ignoring or downplaying issues of profits, prices and control of the means of production. It is blind to the role of inter-firm power inequalities in shaping business relationships, choosing to privilege collaboration over competition. It inadequately incorporates issues of time, change and path dependence into an understanding of local economic dynamics, and remains transfixed by the 'institutional instantaneous'. It fetishises proximity, and neglects the subtleties of place, space and spatialities in the functioning of businesses.

More worryingly, the theory has at its heart two chaotic concepts that bring to it a level of indeterminacy that has the potential to render it meaningless. The first is 'social capital', which has been criticised for simultaneously embracing functional and causal elements (Durlauf, 2002). The second is 'institutional thickness' that is plagued with the same issues of ambiguity and indeterminacy, and is a concept lime 'social capital' that might best be abandoned.

Against the backdrop of this critique it can be suggested that what is needed is a fuller, deeper, more nuanced and less ideologically driven understanding of the processes of local economic growth. At least eight issues need to be unpacked. First, there is a need for a better understanding of the nature (both economic and social) of inter-firm and enterprise/institution relationships and second, the interplay between 'structural', 'cognitive', 'cultural' and 'political' embeddedness needs to be more fully theorised. Third, it is important to recognise more adequately the exclusionary as well as the inclusionary tendencies associated with embeddedness local business relationships, and fourth, the relationship between firm embeddedness and labour market conditions needs to be more fully developed. Fifth, the pivotal role of corporate power and power inequalities in both global commodity chains and local networks need to be more fully theorised, along with a sixth issue, the interplay of power and reciprocity in complex economic systems. Seventh, there is an urgent need to refine ideas on the processes of institutionalisation as they shape local economic growth and finally, our understanding of the spatialities of embeddedness and the spatialities that operate within firms' actions needs to be refined.

However, embeddedness theory and the model of growth it has spawned needs not only to be unpacked, it needs to be more thoroughly tested against appropriate empirical evidence. Only through testing will the theory shed its conceptual obesity and the layers of contingency it continues to accrete. Qualitative analyses seem mainly to add to those layers and there would seem to be a good case for the application of the theoretical scalpel of theoretically informed empirical modelling.

Notes

1 Embeddedness has cognitive, cultural, political, and structural forms (Zukin and Di Maggio 1990, Grabher 1993a,b; Heidenreich and Krauss 1998; Glasmeier 1991). Cognitive embeddedness identifies economic actors' bounded rationality and place-based knowledge. Cultural embeddedness refers to the importance of shared collective understandings amongst businesses in a place. Political embeddedness recognises firms' struggles with non-market institutions that can both help and hinder them. Structural embeddedness refers to the incorporation of firms into place-based commercial networks that facilitate and promote information exchange and learning. It is recognised as having four essential characteristics; reciprocity, interdependence, loose couplings and asymmetric power relations (Grabher 1993a, pp. 8-12).

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