Competition and cooperation between cities in globalization

Peter J Taylor

1. Introduction: debunking the competitive presumption

My subject is inter-city relations. Such relations are usually assumed to be competitive in nature: there is a large literature on 'competitive cities'. The purpose of this paper is to argue that this is not a useful way to approach the question of inter-city relations.

The source of the competitive presumption appears to be twofold. First, the prime 'theory' that has been generally used for understanding inter-city relations is central place theory as expanded into national urban system models (Berry and Horton 1970). The resulting 'national urban hierarchies' were interpreted as inter-city competition. This was directly translated into global-scale studies by Friedmann (1986) as 'world city hierarchy', which he subsequently argued encompassed enhanced city competitive processes (Friedmann 1995). His 1986 diagram of the 'world city hierarchy' was reproduced in several forms for the next two decades (Taylor 2004). In addition, the argument for competition was further bolstered by Sassen's (2001) hugely influential work on global cities, special cities astride the top of worldwide urbanization.

Second, there has been a strand of thought that has cities challenging, and perhaps ultimately replacing, states as a result of contemporary globalization (e.g.

Knight and Gappert 1989). In this view cities are encompassed in 'international relations' thinking with city mayors taking on the traditional competitive role of state presidents/prime ministers. A new political purpose is given to city governments: to devise plans to make their city a successful world or global city at the expense of rival cities. The question they ask of urban academic researchers is simple: 'tell us how can we climb Friedmann's world city hierarchy and become a bona fide global city'. If only the world really was that simple …

2 .The generic nature of inter-city relations

Let me make one point clear at the outset of my argument, I do accept that cities compete with one another. My concern is for the presumption that such competitive behaviour exhausts the possibilities of inter-city relations (Taylor 2009; Taylor et al 2010). The key point is that inter-city relations are more complex than this; in the more sophisticated studies of competitive cities, it is accepted that the competition exists alongside cooperative relations (e.g. Begg 1999; Sassen 1999). If it is accepted that both relations exist, there are two basic topics to discuss: definitions of each, and the way in which the two processes relate to each other

There is a very good literature on distinguishing competitive and cooperative processes between actors (Powell 1990; Thompson 2003), which has been applied to inter-city relations. In short, competitive city relations derive from hierarchical processes; cooperative city relations derive from network processes (Taylor 2004).

Competition and hierarchy. All hierarchies involve asymmetric power relations between members at different levels; those above impose their will on those below.

This is a particular process and must be specified for identifying a hierarchy – Lukermann (1966) makes this precise point for settlement hierarchies. In other words, listing cities by rank order does NOT define a hierarchy unless the relevant power relations are given (Taylor 1997). For instance, in most lists of contemporary cities in globalization London ranks higher than Paris, but this does not indicate a hierarchy à la Friedmann unless it is shown that London, in some sense, is imposing its will upon Paris. Without evidence of 'London telling Paris what to do' there is no hierarchy, just a ranked list of cities. However, there are processes that indicate London as capital city has power over Manchester and this may be used to define a national urban hierarchy. It is in this manner than hierarchies are implicated in competitive relations; for instance, Manchester competing with Birmingham for government largesse from London.

Cooley (2005), following Chandler (1969), has suggested a further refinement. For the field of international relations he suggests two organizational forms of hierarchy. The description above he terms unitary hierarchy, whereby the lower layers are closely controlled from the centre. An alternative organization, multidivisional hierarchy, provides for more autonomy away from the centre. His examples are state formation for unitary hierarchy and imperial organization for multidivisional hierarchy. In terms of inter-city relations this translates as national hierarchies and dependency relations. The latter, famously described by Frank (1969) as metropole-satellite relations, is an autonomy within an extreme asymmetric relation: power is held at the centre without the need for overt domination. This is consistent

with Jacobs (1984) description of the power of cities over places far away but which service its needs.

Cooperation and networks. Networks can only operate on the basis of mutuality amongst nodes (Thompson 2003). In city networks, cities need each other and all contribute to the wellbeing of the network (Taylor 2004). Importantly, although she does not explicitly refer to city networks, this process is consistent with Jacobs (1969, 1984) theorisation of cities as sites of economic expansion derived from inter-city relations. One way of thinking about networks in relation to hierarchies is that the former focuses upon 'horizontal' links across all cities whereas hierarchies are dominated by 'vertical' links between cities at different levels: this has been theorised as a new 'central flow theory' that complements traditional central place theory (Taylor et al 2010a). The former is based upon the interlocking network model (Taylor 2001, 2004) whereby firms link cities together through their multi-location office networks.

The question of how these two aproaches, encapsulating cooperation and competition respectively, relate to each other is a theoretical issue. The traditional 'city origins' answer is very place-based with individual cities arising when they are productive enough to produce an economic surplus to support non-productive city functions (Childe 1950). Competition between cities based upon relative surplus production will therefore be reflected in city hierarchies (Renfrew 1976). But Jacobs (1969) argues that cities do not arrive singly, rather than come in 'packs', in other words as city networks. She defines cities as a process in which these horizontal

inter-city relations are central. In other words, cities are generically networked; that is their nature. It follows that hierarchical relations are contingent.

3. Contingencies of inter-city relations

If city networks are generic and hierarchical processes are contingent, the question arises as to when contingent pressure for hierarchy occurs. In other words, all cities are networked but under certain circumstances there are hierarchical tendencies that create competition between select cities. There are three specific situations where competition between cities is created.

Process: political over economic. The interlocking network model is an economic process but we live in a political economy world. This means that in certain circumstances political process can dominate the generic mutuality of cities to produce powerful hierarchical tendencies. The classic example is in the modern world where nation-states territorialise social space resulting in strong national urban hierarchies in the twentieth century. Although this is the period when most of the literature on inter-city relations was produced, we should recognise that this urban knowledge was created in quite unusual circumstances of fragmented space. With contemporary globalization such fragmented pressures towards multiple hierarchies are lessened. This does not mean that the current world city network is devoid of hierarchical tendencies – London and New York clearly dominate (Taylor 2004) – but the evidence is that the network is becoming more horizontal over time (Derudder et al 2010).

Place: gateway battles. There can certainly be competition between cities within

a specific and restricted area. This is a situation where there is only really economic capacity for one major city so that all local cities are in competition for this position. Such a situation is often referred to as a gateway city, the one place that links a region to the rest of the world (Andersson and Andersson 2000). Such city/regional relations are traditionally related to transport hubs (Pain 2008). In contemporary globalization Friedmann's (1986, 1995) work treats cities below the top level of his hierarchy in this sort of way: key world cities 'articulate' their national or regional economies into the world economy. In this way, there have been some interesting competitive resolutions: Sydney replacing Melbourne, Sao Paulo replacing Rio de Janeiro, and Toronto replacing Montreal as leading cities in their respective national economies. However, in Castells (1996) network society it is perhaps not quite so easy as this. In the informational age based upon electronic communications it is easy to by-pass so-called 'gateway cities': this appears to be happening to some degree to Sao Paulo for some Brazilian links direct to Europe and the USA (Rossi and Taylor 2006).

Time: cyclical effects. All economies appear to be cyclical in nature: there are periods of growth that result in over-production that are consequently followed by periods of contraction/stagnation with under-production. These occur at different time spans and the longer spans will most definitely impinge on inter-relations. Put simply, in the good times cooperation will be seen as beneficial as the economy produces a win-win scenario but with the downturn prospects of losing will generate a more competitive relation between cities. Arrighi (1993) describes just such a situation in late medieval northern Italy wherein economic mutuality between cities gave way to

political competition so that by the mid-fifteenth century only four main cities survived as independent entities: Florence, Genoa, Milan and Venice. Such a process is to be found also in the rise of contemporary globalization. In the economic downturn of the 1970s and 1980s cities fared badly – they were universally seen as sources of problems in a competitive downward spiral – but their fortunes turned around with later globalization so that by the 1990s they were perceived as economic solutions with their mutual interests finally modelled as a world city network in 2000s (Taylor 2001).

These three circumstances induce a competitive process that creates strong hierarchical tendencies within city networks. But these are not 'inevitable tendencies', both generic and contingent processes are reliant on agency: it is the activities of agents that produce networks and hierarchical tendencies?

4. The question of agency

In something as complex as cities there are innumerable agencies that contribute to making inter-city relations. Here I focus upon the two main agencies that are directly involved in network formation: one political, the other economic.

Government agency – mayors, urban policy makers, and city planners. In the argument developed here, city government agencies are the not the reason why cities in networks are considered to be generic. From at least the early twentieth century, city governments have formed policy links with each other and these have sometimes evolved into formally organised city networks (e.g. Eurocities). Although these connected governments can claim to represent their respective cities, such networks

are pragmatic and essentially 'simple'. I mean this in the sense that they are the result of a single decision (to join a network) that can be easily rescinded with a change of mayor or party administration. This is not to say that such networks are trivial, they are especially important in diffusing 'best practice' ideas resulting in inter-city flows of policy information. But this is not what cities as generically networked are all about.

City governments have had a longer-term importance in city network formation. Almost by definition, all successful cities eventually out-strip their existing infrastructure resulting in a threat to their future growth. To right the situation typically requires large capital projects and these are carried out or underwritten by public authorities. Whether it is enlarging harbours or building new airports, dredging rivers or building canals or railways, or attracting airlines or smart electronic connections, such infrastructure, at the least, requires a public subsidy to make the huge new investment viable. But what is important for my argument is not the public supplier but the private agents who create the demand for the infrastructure, and who will be the prime users of new infrastructure.

Commercial agency – trading houses, international banking, and business service firms. In the interlocking network model it is private agencies that are the 'interlockers' of cities. They do this through carrying out their everyday commercial business. Where this business covers large geographical distances there has always been a twin problem of trust and information: to carry out distant business you need a presence in a faraway city that you can trust, and who can also take advantage of a

particular commercial knowledge's ongoing development in that city. Traditionally this has been accomplished through using extended family links across cities leading to both large-scale trading houses and international banking. In contemporary globalization the key interlockers are business service firms (financial, professional and creative) that provide advanced transnational knowledge products that enable global capitalism to operate. Typical examples are law firms that sell their inter-jurisdictional legal knowledges, and advertising agencies that produce 'global' advertising campaigns. In order to service their clients in this way such 'advanced producer service' firms have opened offices in numerous cities across the world. It is the business they carry out through their office networks that links the cities together in a world city network (Taylor 2001, 2004). The inter-city relations are constituted by the information, instruction, specialized knowledge, design, planning, strategy, ideas, teleconferencing, and face-to-face meetings that flow between city offices when implementing servicing projects for clients.

The amalgamation of everyday work carried out by large numbers of business service firms through the myriad flows above generates a world city network that is immensely complex. This is part of what Thrift (1999) calls the blizzard that is the global space of flows. It is possible to discern some geography within the blizzard by studying numerous firms engaged in this process. Thus firms become the subject of study, even though it is cities that remain the object of the research in terms of understanding the process that is the world city network. Such researches have been pioneered by GaWC (Taylor et al 2002) and have been more lately the basis of

collaboration between GaWC and GUCP (Taylor et al 2010b). Some results from this work will be reported below but before then the theoretical importance of the work needs emphasizing.

5. Primary inter-city relations

The inter city relations described above are considered to be the primary relations of contemporary cities. This relates to the earlier claim that they are representing the contemporary representation of generic city networks. This is because world city network formation equates to Jacobs (1969, 1984) classic modelling of the economic expansion of cities.

The world city network and Jacobs' process of economic expansion. The key theoretical argument concerning the explosion of worldwide office networks in contemporary globalization is as follows. Every time an advanced service firm opens an office in a new city it replaces imports it previously had to rely on. For instance, if a major law firm opens a new office in Vancouver, then previous legal services obtained from Toronto can now be produced locally. This is an example of new work for Vancouver based upon import replacement, the basis of economic expansion in Jacobs' (1969, 1984) ideas on how cites grow. Thus the world city network is a multiple process of import replacements across the world. For Jacobs (1969) import replacement is an immense economic force, producer of dynamic cities that rapidly expand economic life. Therefore it follows that the world city network has been an immense force in the massive growth of economic globalization through the last quarter century.

Jacobs (1969) says relative little about city networks beyond her premise, inherent in the import replacement process, that cities need each other. Her focus was what went on within city economies and she is generally appreciated in economics as a pioneer of cluster theory (Glaeson et al 1992, Krugman 1995). But this is really one mega-process of city-ness: without city clusters there would be no city networks, without city networks there would be no city clusters. This needs exploring further since the literatures on clusters and networks have developed largely independent of each other, post-Jacobs.

Clusters/agglomeration and networks. Cities provide knowledge-rich contexts in which different sectors often cluster together and which overall provide agglomerations of work. All major cities have their financial centres plus, typically, a close grouping of law practices, creative zones in which advertising agencies will be found, and many more local clusters. But even more important, is the general agglomeration effect of large size (Glaeser et al 1992). These make cities very special places of enhanced communication for development and transfer of ideas within and across clusters. In addition, the agglomeration constitutes a complex division of labour in which new work continually adds to the variety. This provides firms with access to a wide range of employment skills that is necessary when developing new work.

Clusters and agglomeration link with networks because it is the leading firms in the former whose everyday work creates the latter. But it is not a one-way effect; through their work in the net, firms bring new ideas and knowledge into the city thus

enhancing the knowledge-rich environment. Further, the knowledge they bring from their other offices is non-local, better known as cosmopolitan knowledge. In other words business in the network brings knowledge that makes the clusters and agglomeration all the richer in ideas. In fact most new work derives not from innovation but rather imitation of other city's innovations. This diffusion process is as true a hundred years ago when all cities electrified their economies (a New York/Newcastle innovation of the late nineteenth century) to today when all cities have their advertising agencies (an early twentieth century innovation emanating from New York).

Cluster/agglomeration and network externalities and assets. The basic reason why these processes are important is because they provide externalities, advantages to firms outside the market. Locating in a city provides a firm with access to unique knowledges, especially tacit knowledge and special 'know-how', which are essential to competing in a sector. This is called a cluster externality. But there is also a network externality that provides a similar advantage. This derives from specific cosmopolitan knowledge based upon the nature and density of a city's intersections within wider city networks. Between them these two externalities making city locations essential to many firms if they are to keep abreast of their rivals. Quite simply, cities are the place to be.

Each city's externalities are, therefore, also its assets. This means that every city has both internal (cluster/agglomeration) and external assets. However, most policy making is directed at internal assets because this is where city policy makers have

jurisdiction. This is one of the conundrums of contemporary city planning in globalization: the latter has seen an enhanced role for flows in Castells (1996) 'network society' while policy making remains very place-based. As mentioned previously, it is with infrastructural policy that city governments can make their mark in contemporary globalization.

6. Case studies

The argument so far has been quite abstract and I want to take the discussion further by providing three case studies to illustrate the theory. Specifically, each shows that transcending the competition presumption in inter-city studies ise necessary for understanding the contemporary world city network.

London, Frankfurt and the euro. In 1998 the EU Council of Ministers decided to locate the new European Central Bank, resulting from agreement to launch the new euro currency, in Frankfurt. This was interpreted as a victory of Germany over the UK in European affaires, which was translated into competition between Frankfurt and London: in some circles this was interpreted as the spark that would enable Frankfurt to overtake London and become Europe's premier financial centre. In fact this was a classic case of translating inter-city relations as international relations and getting a completely wrong answer.

In a GaWC project on Frankfurt-London relations at the launching of the euro it was categorically found that there was no evidence whatsoever of Frankfurt displacing London (Beaverstock et al 2001). Through interviewing practitioners in financial and other services we were able to show that in both Frankfurt and London

there was a consensus: the embedded financial context of London – its internal and external assets – meant that this city would remain Europe's leading financial centre for the foreseeable future irrespective of the UK not being in 'euroland'. There was no competition; rather London and Frankfurt complemented each other. All firms in our sample had offices in both cities and therefore had a vested interest in both cities being successful. They were located in both cities because they used each city in a different way: the London office was the global platform for each firm; the Frankfurt office covered European business. In other words they were complementary: success in one office was expected to feed into activities in the other office. Put simply, our respondents thought that what was good for London was good for Frankfurt, and vice versa. Locating the European Central Bank was very peripheral to this network process.

New York advertisers and new centres of creativity. Advertising is the archetypal American service industry and New York, with its famous Madison Avenue cluster, was the main hub throughout the twentieth century. As advertising diffused to other parts of the world, New York became a 'world hub' leading to global campaigns designed and executed in this one city for the rest of the world to consume.

In another GaWC project we have interviewed advertising practitioners to examine this service industry's changes in use of cities in the twenty first century (Fauconbridge et al 2010). The initial 'internationalization' of advertising, as described above, has been termed the imperial model. The firms carrying out worldwide advertising for clients would focus all advanced work from planning

through creative design to financial organization on their New York headquarters. Other offices across the world, sometimes derogatorily termed 'post-box' offices, simply took the New York product, made language and minor cultural adjustments, and simply sold it on to local TV stations. This highly hierarchical framework has not survived; it appears as a temporary evolutionary phase to a network process. With recognition of the need for more nuanced messages reflecting changes in audiences – becoming more reflexive – there has been a transformation to a more cooperative arrangement between offices and thus cities. Different offices are understood to be composed of different varieties of skills and these have to be brought together for the client. New creative ideas are accepted and expected from offices in certain non-US cities such as Bangkok and Sao Paulo deriving from their very different cultural contexts. And New York is no longer the automatic lead office; it might be part of a project team led, say, from Los Angeles. The end-result is a multi-nodal network approach that harnesses internal and external assets from around the world. Why else, we might ask, would agencies invest in setting up a global network of cities?

Beijing and Shanghai's complementary hinterworlds. As mentioned previously, contemporary globalization has been associated with gateway processes that have been associated one leading city in a country outstripping its main rival (Sydney's rise over Melbourne is often seen as a classic case.) But such a competitive process need not be the outcome of economic globalization. Rather than wasting the internal and external assets of the second city, it is surely preferable for the cities in a country to complement each other in their respective roles in the world city network. This seems

to be the case where one of a country's two leading cities is the capital city as with Milan/Rome, Mumbai/Delhi and Shanghai/Beijing.

In our current GUCP/GaWC project we have produced data that can be used to show just such complementarities between two leading cities (Taylor et al 2010b). I will illustrate this by computing the hinterworlds of Beijing and Shanghai to show that advanced producer service firms use the cities in different but complementary ways. Hinterworlds are the non-local (i.e. beyond a city's hinterland) links cities have with other cities. Using data on the office networks of 175 leading business service firms, estimated working flows between pairs of cities are computed. In Table 1 the inter-city links between Beijing and Shanghai are compared directly showing where each city has the stronger connections due to the firms with offices in each agglomeration respectively. The political and commercial roles of the two cities are reflected in this listing. Beijing is strongly connected the New York (United Nations HQ) and major neighbouring Pacific Rim cities (plus neighbouring Eurasian Moscow). Taipei is, of course, a special case with its commercial links to Shanghai but without political links to Beijing. The contrast between Beijing's links to Italy's capital city Rome compared to Shanghai's links to Italy's 'economic capital' Milan is particularly noteworthy. In fact, Rome (also with UN functions) is the only western European city where Shanghai does not have the stronger links. Other Asian and American cities, all are important commercial centres such as Chicago and Mumbai, have closer connections to Shanghai. Thus do the hinterworlds of Beijing and Shanghai complement each other in the world city network.

7. The world city network in 2008

GaWC measured network connectivity of cities in 2000 and in 2008 (with GUCP). This enables changes to be measured for how cities fared in the world city network from 2000 to 2008. The key result is that the top two cities gaining in connectivity are Shanghai and Beijing in that order (Derudder et al 2010). Let us explore this result.

World city network connectivity: what does it mean for Beijing and Shanghai? The first point to make is that both cities have risen to top ten positions in the world city network from outside the top 30 in 2000 (Table 14.2). What does this mean? Connectivity measures the degree of integration of a city into the world city network. At the basic empirical level, since the network consists of estimated world flows between cities by leading service firms, the increase in connectivity derives from both cities gaining more firms with large office networks than all other cities in the data. Important business service firms have made the locational decision to add an office (or augment an existing office) in Beijing and Shanghai between 2000 and 2008.

From the perspective of the firms this is quite straightforward: obviously the firms moving to Beijing and Shanghai are doing so to enhance their competitive position in their global service markets. But from the perspective of the cities there is an important theoretical process being generated. As noted previously, a new office means new work, which in turn means no longer having to leave the local city-economy for vital advanced business services. According to Jacobs (1969) this creates very powerful economic expansion. Thus this is not just about firms adding to

their office networks to service their clients better, the new advanced producer services are directly contributing to the explosive city growth that both Beijing and Shanghai have experienced in the early twenty first century.

Sector network connectivities: are there complementarities? The data upon which the connectivities are computed consist of five service sectors: financial services, legal services, advertising, accountancy, and management accountancy. Thus the overall connectivity can be broken down into these five component parts. When this is done we find that there are interesting differences between Beijing and Shanghai: in no cases are both cities ranked in the top ten, rather one city maintains or advances its top ten position while the other drops out of the top ten (Tables 14.3 to 14.7). This means that the two cities are integrated into the world city network through different patterns of sector workflows. The implication is that once again the two cities are more complementary than competitive in their relations.

Shanghai rises in the top ten for financial services and advertising. These are the modern core commercial services. Shanghai's highest ranking (7th) is as a global financial centre (Table 14.3) even though Beijing is the headquarters of the leading Chinese banks. In transnational financial terms, Shanghai is the place to be in China. Similarly, in advertising, Shanghai as China's leading commercial city is chosen by transnational advertising firms for their new offices resulting in 8th position (Table 14.4). In this case Beijing drops to a lowly 18th – it seems that in China today, government is not as big a market for advertising as it has been in western countries.

Beijing remains in the top ten for the other three services. Its highest ranking is 8th for accountancy (Table 14.5) for which Shanghai drops to 14th. For management services and law Beijing maintains its overall 10th ranking (Tables 14.6 and 14.7) but for these services Shanghai fares very differently: its lowest ranking is for the former (a lowly 23rd) but it is nearly level with Beijing for law (in 11th position). It would seem that at this time firms offering these services are attracted by government (and the market it provides) to make Beijing more of a global priority than Shanghai. The key point is that firms in different sectors tend to use Beijing and Shanghai in different ways thus providing them with complementary roles in the world city network.

8. Conclusion: the mutuality presumption

I started by debunking the competitive presumption for inter-city relations and have argued theoretically (generic city networks) and illustrated empirically (focusing variously on London, Frankfurt, New York, Beijing and Shanghai) why a mutuality presumption is the preferred starting point. I will conclude using one particular city that exemplifies my argument more than any other city in the world city network.

In 1997 Hong Kong reverted to Chinese sovereignty. This is possibly the classic example of an event misinterpreted by the competitive presumption in inter-city relations. The change of political authority was widely expected to result in the demise of Hong Kong as a major world city. In Pacific Asia generally Singapore was identified as the main beneficiary, and within China it was assumed that Shanghai would take over Hong Kong's role of linking the country to the rest of the world city

network. Of course all this was surmised on the basis of inter-city relations being a zero-sum game: Hong Kong loses; other cities gain. But this is not how the world economy and the world city network work: the import replacement process as described by Jacobs (1969) provides a win-win scenario. The latter certainly seems to be the case: since 1997 Shanghai, Singapore and Hong Kong have all massively prospered. The latter city, instead of declining, is consolidating its position as number three in the world city network, above Tokyo and Paris, and catching up London and New York (Derudder at al 2010). The result is that in 2008 China was the only country with more than one city in the top ten: it had three. And like Beijing and Shanghai described above, Hong Kong also has its deeply embedded niche that has grown to complement to other two cities, not rival them.

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