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AN OVERVIEW OF THE LITERATURE ON LINKAGES BETWEEN COMMUNITIES

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**Building, Connecting and Sharing Knowledge: A Dialogue on
Linkages Between Communities**

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An Overview of the Literature on Linkages Between Communities

Introduction

Linkages between communities are crucial in shaping human activities and inter-actions. Linkages connect people and places together and forge interdependencies between communities. They are economic, social, cultural, environmental and geographic. In addition, how communities relate to one another is defined through governance structures. These linkages have been altered as communities have experienced change of urban form, economic and social geographies (Soja 2000). Debate over priorities for funding of communities reveals diverse understandings of the roles of, and relationships between communities. Maclean's magazine recently described an 'urban-rural divide' as a "War between Town and Country" (November 29th, 2004).

Transformations in urban, economic and social geographies mean that it is increasingly difficult to distinguish between urban and rural, or city and hinterland (Gibbs 1961; Tacoli 1998). In medieval times towns were parasitical but with development they have become interdependent (Gibbs 1961) through flows of goods, services and people, through their networks of transportation and infrastructure, through urban sprawl and through their environmental spillovers (Stabler and Olfert 2002).

It is essential that Infrastructure Canada's policies to modernize public infrastructure and advance the New Deal for Cities and Communities be rooted in a sound knowledge of the complex interdependencies between communities. Weak understanding of linkages between communities leads to ineffective policies (Bourne and Simmons 2003; Drabenstott *et al.*, 2004; Reimer and Nagota 2004). In the developing world, the failure of sectoral strategies that in the 1960s and 1970s emphasized urban industrialization, and then in the 1980s and early 1990s emphasized rural agricultural development, is in part blamed on a failure to properly understand urban-rural linkages (Tacoli 1998).

Objectives and Methodology

A growing body of literature demonstrates the importance of differences between communities in Canada (Canada Chair in Urban Change and Adaptation 2005). This review aims to identify rich sources of literature that specifically allow us to study social, economic, environmental and cultural linkages between communities.

Literature is identified which goes beyond the traditional dichotomy of rural/urban – agricultural/industrial – core/periphery - to embrace linkages between communities of all sizes and types, including those between city centres and suburbia or between rural and remote. This paper reviews literature which looks at: urban systems theory; suburbanization and edge cities; city regions, metropolitanization and counter-urbanization; location theory, clustering and trade flows; telecommunications and globalization; demography, migration and immigration; identities

and cultural growth poles; and environmental linkages. In its conclusion the review aims to help catalyze debate and identifies elements of a framework for understanding linkages, and avenues for further research.

The review at first consisted of a trawl through journals in order to identify unexpected areas of literature. In the latter stages of the review a word search approach was pursued. In this paper the word 'community' refers to a spatially determined area of habitation. This may be a city or a neighbourhood within a city or a small northern town. The term 'linkages' has been employed to infer a multiple dimensional interactions as opposed to the term 'link' which implies a chain of interactions.

Urban Systems Theory

Urban systems theory seeks to explain the "evolution, functioning and landscape of a particular city" in the context of other cities (McCann and Simmons 2000a, p77). As McCann and Simmons put it: "A city's size and economic role are shaped by its location and by competing cities" (2000a, p85). The origins of urban systems theory go back to work by McKenzie (1927) on urban hierarchy and functional dominance and Christaller (1933) on 'central place theory.' They sought to predict how, through competition for space, an optimal pattern of settlement would emerge. A number of other scholars in both Europe and North America have also sought to systematize the relationship between communities (Bylund 1960; Losch 1954; Vance 1970).

In the Canadian context McCann and Simmons (2000a) are particularly interested in a core-periphery relationship rooted in three principal factors: 1) the geography of economic consumption and production; 2) geography of demographic shifts; 3) political economy. Authors have looked at the impact on the Canadian urban system of rising levels of metropolitan concentration (Bourne and Simmons 2003), employment concentration (Coffey and Shearmur 1996), core-periphery tensions Bourne and Simmons 2003; McCann 1998; Simmons 1986) and industrial location (Polèse and Champagne 1999). It is clear that there is a constantly shifting matrix of multiple peripheries and multiple cores (Simmons and Bourne 2003).

Despite this research, a panel discussion of the Canadian Journal of Regional Science debates the decline of urban systems theory. Bourne (1998) cites a number of reasons for this decline: 1) a paucity of suitable data; 2) the lack of an over-arching theory of urban systems; 3) the difficulty in applying the lessons of urban systems theory given the lack of correspondence between the structure of government and the structure of the urban system; 4) the failure by urban system theorists to effectively 'market' their research; 5) research interest in the over-arching nature of urban systems has been superseded by a more sectoral focus or concerns about the very local or the global.

Another difficulty with urban systems research is that it tends to be written from the perspective of large cities (Coffey 1998). Yet, whilst the urban system is clearly becoming more concentrated on a few city regions, for rural/remote areas and small communities sustainability depends on participation in that system. The work of Mark Seasons (2004), Aldrich *et al.* (1997), and Fuller (1994) on medium and small sized Canadian towns and that which looks at specifically rural Canadian development (Bruce 2003; Carrier 2000; Jean 2000; Slack *et al.*

2003) is left out of urban systems theory. Useful work has been done on the economic role of developing world small and medium sized towns (Satterthwaite and Tacoli 2003; UN-HABITAT 2004) and those of the US (Atkinson 2004; Markusen *et al.* 1999).

The pessimism that pervades urban system theorists is disappointing. The optimistic view, however, is that Bourne's reasons for the decline of the theory are not fundamental and that there is some interesting and high quality work available which can be built on to develop a framework to think about linkages in general.

Changing Structure of Cities

Just as the "evolution, functioning and landscape of a particular city" is forged by the context of other cities (McCann and Simmons 2000a, p77), so too is the evolution, functioning and landscape of communities within cities shaped by the context of other communities. Processes of suburbanization and inner-urban decay are linked and change the connections between urban communities.

Suburbanization has been the focus of a large body of literature. In Canada Filion *et al.* (1999) outline patterns of urban dispersion and Hoffmann *et al.* measure urban encroachment on agricultural land (2005). In the United States, two popular books by Jackson (1985) and Rowe (1991) have highlighted the huge social, cultural and economic changes that accompany suburbanization. Related literature looks specifically at new linkages engendered by suburbanization such as; the growth in commuting (volume 35, number 7, Urban Studies); 'spatial mismatch' which theorizes that the poor commute further than the rich (Gottlieb and Lentnek 2001; Martin 2001); and the impact of what Bridge and Watson (2000) term 'edge cities' and of out-of-town shopping centres on surrounding areas (Howard 1993). A number of authors have identified the causal links between suburbanization and inner-urban decay, ghettoization and social exclusion (Bogart and Ferry 1999; Leo and Shaw 2002; Orum and Chen 2003; Pastor *et al.* 2000; Power 2001).

The literature on suburbanization and other related processes informs our understanding of linkages for two reasons. The first is that 57 per cent of Canadians live in cities over 300,000 people. These cities are made up of many different communities. A myriad of linkages bind these communities with each other and with communities outside the city. Understanding these linkages not only tells us how urban Canadians relate to their neighbours but might also provides us with analytical tools to better understand the linkages between other types of communities. The second reason is that suburbanization penetrates rural communities and blurs the distinction between rural and urban. Understanding the dynamics of the peri-urban periphery (Bryant and Charvet 2003) is a means of understanding the inter-face between rural and urban areas.

City Regions and Counter-Urbanization

Scholars have for a long time studied the emergence of linkages within city regions and related processes for which a number of terms have been coined. As early 1915 Geddes observed the coalescence of once separate urban settlements. He called this a 'conurbation'. Gottmann (1961) noted the emergence of the 'megalopolis' where a number of cities become closely linked

together. More recently the term ‘polycentric urban region’ (PUR) has emerged to describe the growth of urbanized regions with multiple cores, (see Volume 38, Number 4, *Urban Studies*, 2001). The growth and vibrancy of the Canadian city region is analyzed by a number of authors (Coffey 1994; Gertler 1996; Hodge and Robinson 2001). For Simmons and Bourne (2003) it is large cities and near-by rural recreation areas, which remain competitive in the current economy.

Counter-urbanization (also known as ex-urbanisation) refers to the migration of urban residents to rural areas. The data in Canada shows that the population of rural metro-adjacent regions is growing (Bollman *et al.* 2004). Signs of population reversal in rural areas were first noted in the US (Beale 1977) but similar trends have been identified in Europe (Schaeffer 1992; Stockdale 1991), Australia (Burnley 2002), and Canada (Hodge 1983; Skarbuskis and Fullerton 1999). Counter-urbanization is an illustration of how linkages between communities can be transformed as new residents with new ties establish themselves in the countryside.

The literature on city regionalization and counter-urbanization supports knowledge on linkages because it relates to connections between communities of all sizes and types in Canada’s heavily populated regions and because it illustrates the blurring of rural and urban differences.

Location Theory, Clustering, and Trade Flows

Where jobs locate communities locate. Location theory, closely related to Christaller’s 1933 ‘central place theory’, attempts to explain and predict the location of private enterprise. A renewed interest has emerged in location theory (Chapman *et al.* 2004) and related terms such as: economic agglomeration, innovation, nodes, growth poles, technopoles (Castells 1996) and knowledge spillovers (Audretsch and Feldman 1996).

The process of the clustering of innovative firms has perhaps attracted the most attention from scholars (Bekar and Lipsey 2002; Porter 1990). In Canada much work has been done on regional innovation (Doloreux 2004) and on spatial clustering (Gertler 2001). An excellent and recent case study is available on the city of Hamilton (Maoh and Kanaroglou 2004). Clustering has been proposed as a policy solution for rural areas as well as urban areas (Porter 2004), although it is recognized that “there is still no rich understanding of the composition and evolution of rural economies at the industry cluster level” (Porter p61).

Flows and trade corridors shape directions of inter-dependence between communities. In the Canadian context Gertler (2001) focuses on how the interconnectedness engendered by flows of people, capital and ideas has fundamentally altered the nature of cities.

Planning cities around flows rather than zones (Bertolini and Djyst 2003) is an approach extended to rural Saskatchewan by the Action Committee on the Rural Economy (2004). In light of rural depopulation it advocates investment in infrastructure to promote flows between growth poles rather than an all-inclusive traditional community based approach.

Clustering and trade flows are economic processes that in part determine the location and role of communities, and also shape economic interactions between communities. The wealth of knowledge in these domains is therefore a crucial perspective on linkages.

The Impact of Telecommunications and Globalization

Today even remote communities are linked to the rest of the world through the World Wide Web and satellite telephones. Claims that new technologies would result in ‘the death of distance’ (Cairncross 1997) or in other words the delocalization of economic activity have spawned furious debate (Castells 1996; Polèse and Shearmur 2004; Simard 1998). Despite telecommunications local spatial linkages still matter. People still commute to a central business district and companies still cluster.

Scholars also debate the role of increased global free movement of capital and trade, and telecommunications on the role of communities. On the one hand, Hodge and Robinson (2001) and McCann and Simmons (2000b) warn that the predictions of increasing national urban integration (Myrdal 1957) may no longer be true as city growth is increasingly stimulated by global forces. Simmons and Bourne (2003) point out that whilst intra-Canadian trade continues to grow it is in relative decline compared to the growth in international trade. Courchene (1995) argues that real change to the Canadian urban system must come from outside the country. Scholars certainly agree that globalization has brought massive social changes to cities (Sassen 1991).

On the other hand, Lovering (2001) and Ley (2004) argue that policy makers tend to exaggerate the influence of globalization on the urban system. There is also general agreement that at least in North America and despite NAFTA “borders still matter” (Simmons and Bourne 2003). Simmons and Bourne find that “flows to the major cities of the United States are roughly one-fifth the volume that would be expected to flows to Canadian cities of comparable size and distance” (p2).

However much globalization might have altered the national urban system it is not because geographical location has become any less important. It is argued that the proximate spatial linkages of clustered companies and city regions enhance global competitiveness (Allen 1998; Ash Amin 2000; Castells 1996; Sassen 1991). It is also argued that despite the dispersal of production and the limited advantages of spatial concentration good urban governance and infrastructure investments can enhance the global competitiveness of place (Erie 2004; Sassen 2002). Gertler (2001) posits that:

“A central paradox of our age is that, as economic processes move increasingly to a global scale of operation, the centrality of the local is not diminished but is in fact enhancedthe foundations of economic success in an increasingly competitive world are the social qualities and properties of urban places.” (p2)

Certain cities can therefore take advantage of local social and governance conditions to compete within a global urban system (Castells 1996; Sassen 1991, 2002; Smith and Timberlake 1995; Smith 2003). Local economies (Polèse 1996), medium sized cities (Hodos 2002) and rural areas (Liechenko and Silva 2004) can also increase their linkages to the global system.

Connections and hierarchies between communities have been dramatically changed by telecommunications technology and globalization. Communities emerge as both winners and losers from these changes. These complex and constantly changing processes demand analysis as crucial elements in any framework aiming to understand linkages.

Demography, Migration and Immigration

Although economic conditions are key to the growth of communities, demographic processes contribute to changes in their own right. Given declines in levels of natural increase communities depend on migration and immigration for population growth. Much data is available in Canada, although great care must be taken with its analysis.

For Simmons and McCann (2000b):

“Demographic processes are obviously central to any explanation of the urban system, as well as the changing landscapes that characterize the contemporary Canadian city. Regional variations in the demographic subsystem distinguish the social make-up of Canadian cities in powerful ways, highlighting differences in the timing of settlement and immigration.” (p110)

Large cities continue to expand and grow because they attract the migration of young people of childbearing age (Foot 2002). Montreal and Toronto have different demands of labour and therefore attract different types of migration (Coffey and Polèse 1999). Inter-provincial migration (Burbridge and Finnie 2000) shows that the Canadian population is shifting west. Rural-urban migration data is more complex and demonstrates shifting patterns over the last three decades and diversity of experiences throughout Canada (Anderson *et al.* 1992; Audas and McDonald 2001; Bourne 2004; Rothwell *et al.* 2002). In general there is a tendency for rural youth to migrate for social as well as economic reasons (Dupuy *at al.* 2000).

The urbanization of aboriginals is a particularly prominent demographic process in Canada (Jantzen 2004). Newhouse and Peters (2003) point to both the transformation of culture and the retainment of ties to rural areas. Nevertheless, Peters (2002) claims that very little is known about the experience of aboriginals moving to the city. In the international development context much work has been done on the link that migrants maintain with their rural areas (Smith 2002; Tacoli 1998).

Immigration has become crucial to maintaining growth in Canada’s population, a growth concentrated in the large cities (Simmons and Bourne 2003). Immigration serves to increase cultural, social and economic links to the rest of the world (Wu 2003). It also changes linkages between Canadian communities. Immigration leads to the ethnic recomposition of cities such as Vancouver and Toronto as well as the massive growth in populations as a result of changing age structures (McCann and Simmons 2002b). As McCann and Simmons write: “the national urban system clearly responds to events outside the country” (p112). However, relatively little is known about the economic impact of a lack of immigration (Justus 2004; Murdie 2004). Urban concentration of migrants is worrying for rural areas which rely on migration for growth (Bollman 2004).

Demographic changes, migration and immigration help forge the role of communities from the local to the international context. The extensive existing data and literature on these processes contributes greatly to perspectives on linkages.

Cultural Growth Poles, Identities and Social Capital

Richard Florida's famous book "The Rise of the Creative Class" (2002) claims that communities with diverse populations are more interactive and innovative. This group of professionals shares common characteristics, such as creativity and individuality. Florida's work reflects a body of literature that underlines the benefits of cultural growth poles for host communities. It is argued that the City of Ottawa failed to take advantage of certain opportunities to maintain its status as a cultural growth centre (Doucet 2004). Attempts to understand linkages should integrate the work on cultural growth poles which highlights and to some extent conceptually systematizes the cultural connections between communities.

Identities are in part forged by 'otherness.' Perceptions of otherness are forged by linkages (Hough 1990). Halseth (1996) argues that the cottage is a powerful image of rural Canada and that this image often ignores the rural community that surrounds it, producing a geographically and socially divided landscape between cottage owners and rural communities. The appropriation and manipulation of rural identities becomes a contentious issue and is one example of how changing linkages can change identities.

Sociologists can contribute to our understanding of linkages in many ways. For example, although literature on social capital is currently focused on intra-community linkages, Szreter and Woolcock's (2004) bonding, bridging and linking social capital incorporates many of the linkages between communities. Bonding capital refers to relations between people who see themselves as sharing a common identity (within a community). Bridging social capital, by contrast, resides between people who share little common identity (between communities). Finally, linking social capital refers to relations between people of different power gradients (between communities of different economic and political power).

Environmental Linkages

Communities in Canada share common environments. Rural communities and urban communities pollute their own and each others' environments. The pollution of environments link communities and can lead to claims for environmental justice (Kreig and Faber 2004; Morello-Frosch *et al.* 2001; Schweitzer and Valenzuela 2004). A cities' ecological footprint (Faulkner 2004; Rees 1992; Wackernagel and Rees 1995) describes the land area on whose production the inhabitants and businesses of any city depend for food, renewable resources and the absorption of carbon to compensate for the carbon dioxide emissions. The impacts of ecological footprints are related to changing urban-rural linkages (volume 6, issue 1 -2, Urban Ecosystems). They transform rural eco-systems and blur urban-rural boundaries (Tacoli 1998).

Another area of literature that refers to environmental linkages is that on Common Pool Resources (CPR), a common theme in international development literature (Baland and Plateau

1996). Ostrom's work (1990) builds on Hardin's famous article "The Tragedy of the Commons" (1968) and uses the term 'common pool resources' to denote natural resources used by more than one individual, such as fisheries, groundwater basins, and irrigation systems. For Ostrom collective management by users is the best solution to over-exploitation of such resources.

Despite being fragmented, available research on common property resources, ecosystems and ecological footprints contributes to our understanding of the implications for communities of being located in common environments.

Conclusions

The following conclusions emerge from the research:

- There is no body of research specifically focused on the linkages between communities.
- There is no prevailing analytical framework for understanding these linkages.
- Although fragmented there are several areas of economic and geographic research that address different facets of the linkages between communities which could be used to support further research and policy development.
 - One area of research that explicitly addresses linkages between communities is that of urban systems theory.
 - Research on demography, migration and immigration contributes strongly to our understanding of inter-community linkages.
 - There are a number of other economic and geographic perspectives which shed light on the linkages between communities at least within a certain region: suburbanization; poly-urban regions; counter-urbanization; location theory, clustering; regionalization, metropolitanization, and conurbations; and telecommunications and globalization.
- Other academic disciplines also make a contribution to a framework looking at linkages between communities. Research on cultural growth poles and identities contributes to our understanding of cultural linkages and a study of common property resources, ecosystems and ecological footprints brings an environmental perspective to linkages.
- More work still needs to be done on identifying the linkages between communities as well as on assessing the impacts of these linkages on communities.
- In particular, more research is needed on social, cultural and environmental linkages.
- There is little attempt in the literature to integrate different perspectives on linkages. The variety of relevant areas of geography might be more clearly integrated with each other. For example, efforts should be made to analyze the relationship between suburban and rural communities. More work could be done which looks at the urban system from the perspective of medium size cities.
- Such a geographic approach should in turn be integrated with more purely social, cultural and environmental perspectives.
- Research on urban-rural linkages in the developing country context is relatively advanced and may be a useful source for scholars interested in looking at linkages between Canadian communities. This area of research in part integrates economic, environmental, social and cultural linkages and challenges traditional dichotomies between urban and rural milieus.

- The literature cited in this review confirms that urban-rural dichotomies are unhelpful in furthering our understanding of linkages between communities.
- There may be other areas of research, more traditionally applied to investigating relations within communities, such as social capital, which might be used in analyzing relations between communities.
- Linkages are constantly changing. For example it is evident that the impacts of immigration and globalization on the role and size of cities are growing. Research, and in particular urban systems theory, needs to account for these changes.
- Although some of urban systems theory's own advocates are skeptical about its relevance, its systematic approach to understanding linkages might be drawn on to contribute to our understanding of economic, environmental, social and cultural linkages.
- An approach inspired by urban systems theory might also help explain the relationship between economic, environmental, social and cultural linkages.

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