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Veröffentlichungsversion / Published Version

#### Empfohlene Zitierung / Suggested Citation:

Dale, A., & Newman, L. (2006). Sustainable community development, networks and resilience. *Environments : a journal of interdisciplinary studies*, 34(2), 17-27. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-396289>

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## Sustainable Community Development, Networks and Resilience

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### Abstract

In a changing and unpredictable world, sustainable community development is less a goal than a dynamic process of working with the resources and information at hand. In order to sustain this dynamic interactive process, communities need to anticipate and respond to these dynamics and nurture their resilience in order to innovate and diversify. This is particularly difficult for communities that are marginalized, dealing with poverty, homelessness, and addiction. However, social capital can be harnessed to create the community agency needed to foster sustainable development. This paper focuses on the ability of community networks to build social capital critical to the creation of the resilience needed to sustain communities. It draws on a case study of a community-driven initiative taking place on the East Side of the city of Vancouver, British Columbia, a community with very low levels of economic capital.

Dans un monde imprévisible et en constante évolution, le développement durable des collectivités est davantage un processus dynamique de travail avec les ressources et l'information disponibles qu'un but en soi. Afin de

soutenir un tel processus dynamique interactif, les collectivités doivent prévoir cette dynamique et y réagir, tout en cultivant leur résilience afin d'innover et de se diversifier. Cela est particulièrement difficile pour les collectivités qui sont marginalisées et qui doivent composer avec la pauvreté, le sans-abrisme et la toxicomanie. Il est néanmoins possible de mobiliser l'organisme communautaire nécessaire pour favoriser le développement durable. Dans cet article, les auteurs évaluent la capacité des réseaux communautaires à former le capital social essentiel à la résilience nécessaire pour soutenir les collectivités, en se fondant sur l'étude du cas d'une initiative communautaire ayant lieu dans le quartier Downtown East Side de Vancouver, en Colombie Britannique, où vit une collectivité dont le capital économique est très faible.

### **Keywords**

Sustainable development, social capital, resilience, community, adaptive management, diversity

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### **Introduction**

The concept of sustainable development is growing in popularity as it is embraced by governments, businesses, and communities faced with environmental, social, and economic uncertainties. Although the concept certainly has its critics, such as the assertion by Luke (2005) that sustainable development merely endorses a different kind of consumerist development, there is a growing movement to consider the ecological and social impacts of economic initiatives.

As many community groups in Canada are initiating projects to increase the sustainability of their communities, our research group became interested in whether such initiatives are producing long term changes. We were particularly interested in the application of the "three pillar" definition of sustainable development; that of sustainable development involving the reconciliation of three imperatives. These are the ecological imperative to live within global biophysical carrying capacity and maintain biodiversity, the social imperative to ensure the development of a healthy and functional society, and the economic imperative to ensure that basic needs are met worldwide (Dale 2001; Robinson and Tinker 1997). This is a general enough definition to allow for sustainable development to be interpreted differently in specific socio-geographic situations and to remain meaningful in the face of the dominant element of our societies: the element of change.

The concept of a "sustainable community" is difficult to define. They are communities that meet the needs of current and future residents while respecting the environment and quality of life. Although ecological and economic aspects of sustainability have been addressed by several writers – Kunstler (1993) for example, addresses these issues in relation to urban form – the social aspect of a sustainable community has received less attention. It has been said that the social dimension is the weakest "pillar" of sustainable development (Lehtonen 2004); we have focused our research on social aspects of sustainable development in order to study how social structure informs economic and ecological sustainability.

Community level sustainable development takes place at a critical level of response between the national and individual level. These community responses tend to be self-organizing and based upon response to specific issues of critical concern to their community. However, communities with few economic resources can find it difficult to effectively create change within their neighbourhoods. In previous research we found that for such action to occur communities needed to have networks of social capital in place that could create the agency for change (Newman and Dale 2005).

Social capital has been defined in several ways; Coleman (1990) and Portes (1998) explicitly conceptualized social capital as an asset held by individuals, whereas Putnam has explored the ways in which it operates as a community asset held by all. Putnam (2000) defines social capital as “social networks and the norms of reciprocity and trustworthiness that arise from them.” Social capital, in this sense, is the connections that a group can use to achieve its objectives. In this paper, we also consider/apply Kadushin’s (2004) definition of social capital as network diversity.

The ability to turn social capital into action can be viewed as a group’s agency. Agency is the ability of a group to respond to challenges. There are several definitions of agency, including “the capacity of persons to transform existing states of affairs” (Harvey 2002), “the capacity to plan and initiate action” (Onyx and Bullen 2000) and the “ability to respond to events outside of one’s immediate sphere of influence to produce a desired effect” (Bhaskar 1994). A group’s agency will impact its ability to successfully engage with sustainable development issues.

Our particular research focus has been the study of sustainable development initiatives within marginalized communities. These communities often have limited access to ecological, social and economic capital, and they often struggle with addiction, poverty and homelessness. The particular case study examined in this paper is an organization called United We Can ([www.unitedwecan.ca](http://www.unitedwecan.ca)), which was established as a not-for-profit agency in 1995. The organization evolved from a loose, ad hoc network of homeless men and women known as dumpster divers or bidders who live and work in the Downtown Eastside of Vancouver, British Columbia, one of Canada’s poorest and most disadvantaged neighbourhoods.

## **Networks of Social Capital**

During investigation of the United We Can initiative, we were particularly interested in the use of social networks to offset the disadvantages presented by the lack of economic capital in the community. In communities of all sorts, but particularly in those with little economic capital, social networks contain the social capital that can bring agency to bear on system-induced problems (Newman and Dale 2005). Agency is needed for citizens to be able to adapt to their cultural environment (Horvath 1998) and the structure of one’s network affects one’s ability to adapt to a significant change in the environment (Gargiulo and Benassi 2000).

Networks are composed of social ties which are often grouped into two main types; ‘bonding’ and ‘bridging’ ties (Putnam 2000; Onyx and Bullen 2000),

although others continue to use the terms “strong” and “weak” following the lead of Granovetter (1973). Bonding ties are connections between people who know each other very well, such as family connections and connections between close friends. Bridging ties are connections to people outside of one’s own local groups.

Critical to enabling social capital are the bridging ties that link together clusters of tightly bonded individuals (Granovetter 1973). It is a web of diverse interconnections that enable community resilience (Newman and Dale 2005) as the bonding ties allow internal groups to form and function and the bridging ties allow access to outside resources. Further, a mix of weak and strong ties creates both safety and adaptability (Gargiulo and Benassi 2000). As a more concrete example, in a disadvantaged community, civic society organizations bridge rich donors and poor clients. They must maintain ties in both worlds to be effective (Ashman *et al.* 1998). We were interested in the role bridging ties play in creating change in a very disadvantaged community.

Critical features of social capital and network formation include the ability of local groups to self-organize and to realize adaptive co-management systems, mobilizing social networks to connect institutions and organizations across levels and scales (Olsson *et al.* 2004). This kind of bridging network formation, which allows a community to reach beyond its boundaries, appears critical for effectively engaging with system-scale problems that might stretch far beyond an individual community. As an example, Krishna (2001), in a study of villages in India, found that agency was necessary if groups were to successfully interact with officials. The villages in which people believed they could attract the attention of officials and achieve needed permits and government support were the most successful at reaching sustainable development goals. In contrast, Volker and Flap (2001) found the lack of bridging ties in East German communities greatly reduced community agency. Although these communities were well connected internally, they had no access to external resources, limiting their agency.

## Uncertainty and Resilience

We live in an increasingly complex world. One of the mistakes of early proponents of sustainable development was to advocate for stable states, yet complex systems such as human societies are not always stable. In a world of sudden and unexpected change, no one lasting sustainable state exists (Newman 2005). Sustainable development is a moving target (Salwasser 1993), not a one time goal. Sustainable development requires constant and difficult effort, and this effort can be very taxing for a community with few economic resources. In our study of “United We Can,” we were particularly interested in whether the formation of the group would increase community resilience by providing a network of social capital to draw upon in the future.

To manage complex, dynamically interconnected situations such as the entanglement of ecological, social, and economic issues, communities can draw on systems theory designed to treat such complex issues (Kay *et al.* 1999). One key element of systems theory is understanding of the dynamics and complexity of resilience. One definition of resilience is “the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and

environmental change” (Adger 2000). Although the concept is drawn from the study of ecology, its application to human systems is much broader, as humans can anticipate and prepare for the future to a much greater degree than ecosystems can (Peterson 2000a). Resilience has also been defined as the capacity to deal with complex issues widely dispersed across a set of loosely connected actors (Olsson *et al.* 2004), a definition that speaks to the collective nature of community resilience.

Social resilience can be measured by proxy, using indicators such as the variability of income, stability of livelihoods, wealth distribution, demographic change (Adger 2000) and agency (Newman and Dale 2005). However resilience is also a function of the social networks contained in a community. Resilience emerges from both intrascale and cross-scale interaction. Understanding the nature of resilience across scales is difficult because of non-linearity, emergent properties and the dominance of different processes at different scales (Peterson 2000b), as well as human dynamics.

On the basis of our research in Canadian communities and network formation for sustainable community development, we concur with Gunderson (2000) that, in order to increase local resilience, communities must increase the buffering capacity of the system, manage for processes at multiple scales, and nurture sources of trial and error. We believe that communities with few economic resources might have difficulty meeting these requirements, and will need to explore many different potential options. Communities also need to encourage diversity. Rammel (2003) argues that diversity is the key to preserving adaptive flexibility within society. In effect, when confronted with challenges, an adaptive community survives by having an array of diverse paths to choose from. In the case study in question, the community builds diversity by providing new options for employment and builds resilience by formalizing an activity that was conducted individually, giving the participants a recognized voice in the larger community.

## The History of the “United We Can” Case Study

The city of Vancouver is often held up as a model of sustainable development with its dense downtown core (Montgomery 2006), but Vancouver’s East Side has not shared in this renaissance. Millions of dollars have been spent on initiatives to improve conditions in Vancouver’s Downtown Eastside, but addiction rates and the destitution of this area have continued to rise. The community continues to be the centre of the injection drug use epidemic in Vancouver and disparities of health status of residents compared to Vancouver and the rest of British Columbia persist (Buxton 2003). In the period between May 2004 and September 2004, over 200 men died in this neighbourhood (Lyotier, pers. comm.). Compared to the province of British Columbia as a whole – and taking into account the age of the population – this community has significantly more observed than expected deaths from all causes (Buxton 2003).

The study of the “United We Can” initiative was undertaken as part of a larger grant from the Social Sciences and Humanities Research Council of Canada (SSHRC) titled “Social Capital and Sustainable Development.” This research project studied the linkage between social capital and successful sustainable

development initiatives in several communities with varying levels of economic capital. Interviews were conducted within the community using a “snowball” technique to gain understanding of the social network structure present. The Vancouver East Side was the community with the lowest levels of economic capital present.

The “binners” of the Eastside have long been a fixture in the community. Prior to 1995, divers worked at night, individually and hidden away since they were regarded as distasteful even within their own community. They recovered recyclables from the big blue garbage bins hidden in the alleyways behind high-rise condominiums that connect much of the downtown of Vancouver. They were hostage, however, to retailers who resented street people bringing recoverables to their stores for cash – often with containers not sold by the retailer. Interviews revealed that retailers would refuse to take the containers or would try to convince the divers to take product in lieu of cash.

In 1992, the founder and a friend decided to do something about their resentment and convinced a local church, First United Church, to donate \$150.00 to organize a one-day bottle depot in Victoria Square, a local park. The idea was to pay street people to bring in empty cans and bottles which at that time were non-refundable. By organizing this event around a basic issue affecting dumpster divers, the leaders hoped to highlight the issue publicly. Small handbills were drawn up and posted on the blue garbage bins, and distributed in welfare and food bank lines, the Salvation Army and other places frequented by the dumpster divers. The initial one-day park depot attracted divers who lined up along the park and spilled onto the street with shopping carts full of non-refundable bottles and cans. Each person was paid up to \$10.00 for their non-refundables. The event was a huge success in terms of its outreach to the ‘diver’ community and the volume of bottles and cans recovered, although in the end the organizers had to pay a truck to come and haul away the ‘garbage’. One unanticipated result of the Victoria Park depot was that all the people who had been ‘hidden away’ working individually in the alleyways sorting through garbage started to connect on the streets and comment about how great the depot had been, and asked whether there was anything more that could be done: the beginning of a small network. The provincial government, through the Human Resources Ministry, approached the organizers to learn more about what had happened. They proposed bringing in consultants to organize community workshops. The community organizers, however, suggested to the Ministry that if they wanted to learn about Victoria Park, the knowledge should come directly from the divers, and that they should also be paid as consultants for their time. Again, street people lined up for the workshops at local community centres, and had a lot to share with the government officials, for they knew the business first hand.

The critical emergent learning for the binners from these workshops was the realization that they could create their own deposit system. Although there was no further money to hold another one-day depot, about 15 people continued to meet regularly to discuss how to start their own not-for-profit society, with Ken Lyotier paying for pizza. Over time, more and more people were attracted to the meetings. In 1993/1994, the provincial government brought in new regulations to cover containers not earlier covered, providing the potential for a depot such as



United We Can to make money. It still took a few years, however, for the initial core network to become a legal nonprofit organization.

Following their incorporation, the group approached VanCity Community Loan Fund (a community savings co-operative) for a line of credit, which was eventually secured: \$12,500 from VanCity itself and \$12,500 from a benefactor. United We Can was established as a formal depot in 1995, and Ken Lyotier became its first, and to date only, Executive Director. In that first year, 4.7 million containers were recycled, putting \$360,000 back into the community through handling fees. At this time, the provincial government paid for the rent and the initial wages for the men and women. This convergence of government alignment and economic support helped sustain the initiative at critical points in its evolution from a small network to a recycling depot to, ultimately, a social enterprise.

The operating principle behind the organization was that they would only hire people that would never get hired by anyone else, that there would be no exclusions because of active addiction or health issues. There were several operational difficulties in the first years, namely encouraging members of the community to become involved. To overcome this, Ken Lyotier actively knocked on doors and convinced people to leave their rooms. The group banked all revenues, which proved to be a key business strategy when government funding was no longer available, and before they were self-sustaining, the bank account served to demonstrate the group's legitimacy when trying to persuade other funders to support the organization through some lean times.

Today United We Can employs 33 people full-time, all of whom had not been previously employable. Their annual revenues are 1.6 million dollars, and they recycle 50,000 containers a day, which average out to 100 containers sorted each minute. They average a clientele of 700-750 street people a day, with 300 core binners every day, and process over 20 million cans and bottles a year.

With four other business streams now in development, United We Can is a social enterprise that integrates the ecological, social and economic imperatives for their sustainable community development. It is a concrete example of integrating the three imperatives – by doing something good for the environment (the ecological imperative), such as reducing waste through recycling, one creates jobs (the economic imperative), thereby augmenting agency and providing social resilience through the creation of a formal network (the social imperative). It is also a concrete example of people with little or no economic capital using social capital to jump start an initiative. The transition of this organization from a loose ad hoc coalition to a social enterprise illuminates the importance of moving from bonding social capital to bridging social capital in order to evolve from a network to a successful organization.

## **A Successful Use of Social Capital**

What were the critical elements that enabled this ad hoc network of street people to evolve into a formally established social enterprise? Much had to be overcome; marginalized people lack a connection to others and to community, and this disconnection from a sense of belonging is a vicious cycle, exacerbating individual problems. First, a group had to form and this core group then had to foster interest among others. This sector of society is often lacking critical net-



works to improve their situation, and they must use what networks they have to gain access to bridging social capital – which is critical to marginalized communities, and is built through network formation. In the case of United We Can, the individuals involved used what bridging ties they did have to access seed money and used publicity to foster further ties. Individual agency may be a necessary condition before network formation and increased social capital can occur. In this case, it did appear that the organizer served as a “node” around which others gathered. In short, he was willing to work very hard to strengthen the network.

Under a social capital perspective emphasis is placed on finding the most effective ways in which citizens, service delivery agencies, institutions, and organizations interact and create linkages for developing sustainable changes in the living conditions and well-being of community members. On the basis of our research in this community, and in other communities in Canada, we maintain that this perspective is critical to sustainable community development. For marginalized sectors in a community, however, a social capital perspective must have a particular focus on agency at both the individual and collective levels.

In the case study, divers were able to overcome the individual, ad hoc nature of their ‘hidden’ activities by, first, collectively organizing – a simple case of coming out of the dark. Media attention certainly helped to highlight their argument about expanding the recoverables from the waste stream. As the loosely organized group continued to meet and build on their initial Victoria Park success, trust began to be built and a *community* of binners began to evolve. In 1995, when the recycling depot was formally established the community then had a space to collectively drop off their recyclables, receive a fair rate of return, and socially interact in a safe place that was led and organized by members of their community. Also key were the founding principle of only hiring people who ordinarily would not be employable by any one else and, more critically, flexible employment arrangements to accommodate individual needs. For example, if someone’s mental health or addiction disease allowed them to work only 8 hours a week, then the enabling conditions were put in place to facilitate this. The second founding principle – that economic agency is a basic, necessary and first condition for a healthier community – was also important.

The leadership of its founder, Ken Lyotier, and his ability to leverage bridging and vertical social capital was crucial to the evolution of this network. His ability to establish contacts at all levels of society, far beyond his community, has greatly enhanced the capacity of the enterprise. Lyotier has an uncanny ability to optimize the right space, place and time conditions, and to strike strategic partnerships to facilitate his organization’s evolution.

We believe that this case study research proves the capacity of marginalized communities for innovation to increase their access to economic capital and ultimately other capitals, through self-organizing network formation and informed government policy directions, leading to the creation of a place and space to continue to build social capital. Network formation is a necessary precondition for information sharing, knowledge diffusion and ultimately innovation leading to greater community resilience and the ability to have hope for the future. However the supporting social structure plays a key role; the VanCity grant greatly assisted the group in building their social capital and agency; without such sup-

port it is harder for disadvantaged communities to succeed in creating positive change. There is also some limit to targeted interviewing in which interviewees suggest further interview targets; one only maps a portion of the network, and separate sub-networks without direct connection to the network in question can go unnoticed. This limits understanding of how the initiative is viewed by the greater community. Although gaining knowledge of community critique was not the main objective of this study, it would be an interesting avenue for further research.

Social capital is also not always beneficial, and the success of this case should not be seen as a blind endorsement of the power of social capital. Research has shown that tightly knit social networks can imprison actors in maladaptive situations or facilitate undesirable behavior (Borgatti and Foster 2003). The surrounding network's opinion is central to the initial departure from convention during an innovation (Ruef 2002). If too many of the binners had felt that the effort to construct a business out of their activity was hopeless, it is unlikely that the lead organizer could have overcome community opinion. In short, social structure is both enabling and constraining (Ruef 2002).

Portes (1998) also notes that social capital can lead to excess claims on group members. In the case of United We Can, success hinged on the organizer's willingness to put in a lot of time on the project. Such reliance is neither easily reproducible in all situations nor sustainable over long periods of time. A group relying on social capital alone is not as resilient as a group with support from government and other such formal structures.

## Conclusion

The "United We Can" group succeeded in using a network of social capital to create agency for change that improved the community's resilience by establishing a stable market for recyclables and providing a formal network to speak for the binners of Vancouver's East Side. The group managed to do this with very few bridging ties; they instead made very effective use of the few bridging ties they did have, and created more through media attention. All three imperatives of sustainable development were strengthened through this effort; the amount of waste diverted from landfills was increased, contributing to the ecological imperative, a stronger social network was formed, aiding the social imperative, and the income stream for a very disadvantaged group was improved, aiding the economic imperative. The long term success of this group and the community it represents remains to be seen, however.

Positive change can be difficult to maintain when the ecological, social, and economic dimensions of sustainable development are in conflict (Lamberton 2005) and the strong growth of the surrounding city is increasingly threatening Vancouver's Eastside with gentrification. The effect of these forces upon the community is a topic of further research for our team.

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