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Reclaiming Consumption: Sustainability, Social Networks, and Urban Context

by

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Abstract

A social practices theoretical framework and mixed methodology are used to explore household sustainable daily practices in Edmonton, AB. Sustainable daily practices involve those actions undertaken by households to minimize their impact on the environment (e.g., cycling to avoid driving). Because social practice theory considers the reciprocity between agency and structure in establishing habitual routines, this perspective allows for the integration of competing theoretical explanations in the study of sustainable consumption (i.e., treadmill theory and consumer "lock-in"). Qualitative interviews are used to shed light on how peer-to-peer learning within a network of ecological citizens sustains individuals' commitment to reducing consumption. Acting as a group is part of reclaiming consumption, as is the attempt to alter local social context to lessen barriers for others to live more sustainably. Barriers include built infrastructure and social norms. Members of the network described in the qualitative phase reside in a central neighbourhood. Unlike suburban neighbourhoods, the central area is within cycling distance of the downtown and university areas, has walking access to shops and services, and is adjacent to a large natural area with multi-use trails. In this central neighbourhood, residents interviewed meet frequently and informally with other households in the area also interested in sustainable living. In contrast, households interviewed in suburban areas describe a sense of isolation from like-minded others and a paucity of neighbours who inspire them to deepen their commitment to the environment (i.e., through positive reinforcement or knowledge-sharing). To further understand the influence of neighbourhood – as a structural feature – on daily practices, a survey instrument is used to compare a

central urban and a suburban neighbourhood. The quantitative data are used in a cluster analysis resulting in four subgroups of households. The clusters do not differ greatly on socio-demographic variables, but are strongly differentiated by neighbourhood of residence. Thus the thesis concludes that reclaiming consumption, or reducing one's consumption in concert with others, is more easily achieved in an area with public meeting points, the presence of other households committed to reducing consumption, and the opportunity to conspicuously display one's daily practices around sustainable consumption.

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CHAPTER 1: INTRODUCTION

In its earliest days, my dissertation was going to be an exploration of the social drivers of waste; later, inspired by my purchase of an expensive espresso machine, it morphed into a study on the means through which focusing on high quality products might add to quality of life and fuel sustained reductions in consumption. Now, in its final form, it has a different purpose: to describe the heightened efficacy of a network of households in reducing consumption and removing barriers for others to do so, as well as an exploration of the role of urban context in fostering sustainable consumption behaviour.

Studying consumption is akin to opening Pandora's Box: following one line of inquiry quickly leads to a messy, murky field of study extending through space and time. Veblen's account of conspicuous consumption, or pecuniary emulation, is as valid today as 150 years ago; Marx's notion of commodity fetishism has not decreased in its relevance or applicability; and the culture industry Adorno and Horkheimer (1944) criticized with such vitriol is alive and well. However, the existence of voluntary simplicity movements, downshifting (Schor 1999) and ethical consumption suggest that not all in society have been duped into overconsumption. More recently, Dobson's (2003) normative theory of ecological citizenship is a valid account of how some in society are, at times, motivated to reduce their consumption by concerns for environmental and social justice. No theory of consumption or sustainable consumption can account for all actors in all places at all times. This caveat applies to my findings as well: being involved in an informal network of like-minded families helps *some* people to express their citizenship in such a way as to shape social norms and influence others. Living in a suburban context is a barrier to forming social networks and significantly reducing consumption due to social and physical barriers though there are exceptions to every rule and outliers in each equation. This thesis should not be read as a *fait accompli* but as a work in progress.

Consumption and the environment

The diverse pleasures afforded by the consumer society come at great cost to the

environment, to humanity, and as the world witnessed in the 2008 financial crisis, to the economy as well. Human consumption has adverse effects on the environment through depletion and pollution of air, land and water systems (Arrow et al. 2004; Boyd 2003; Urry 2010). The waste resulting from human consumption behaviour has littered the oceans with plastic and created mountains of electronic waste in countries such as China (Clapp 2004; Dauvergne 2010). The lack of a widespread individual or national response to increased awareness of climate change in the past three decades is of particular concern. As Carolan (2010: 316) writes, "In the case of climate change, our failure – or perhaps more accurately our unwillingness – to disrupt routines of both consumption and production has led to massive injections of greenhouse gases into the atmosphere over the last century."

Many academics and practitioners working in environment-related fields would likely agree with Wilk's (2001: 246) comment that "consumption is the most urgent and fundamental environmental issue that we face." In addition to the environmental costs described above, there are also negative social (including economic) impacts from excessive consumption. Socially, the values and behaviours associated with a consumer society have been linked to widening gaps between rich and poor both within nations and between nations (Leiserowitz & Fernandez 2009; Speth 2008). Other social issues associated with overconsumption include health problems (Schor 1999), declining political participation (Speth 2010), and decreased well-being (Anielski 2007; Thaler & Sunstein 2008; Victor 2007). For the economy, the debt-fuelled global financial crisis gave some indication of the tenuous nature of the growth economy (Kallis et al. 2010). Broadly, as material demand intensifies and production technologies improve, threats to sustainability – at the environmental and social levels – are exacerbated (Vlek & Steg 2007).

These and other indicators make clear that wealthy, industrialized nations are far from meeting the tenets of sustainable development. [1] As Fuchs and Lorek (2005: 261)

[1] Defined in the Brundtland Report as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

explain, "Without sustainable consumption…sustainable development is impossible". The Organization for Economic Cooperation and Development defines sustainable consumption as "the use of goods and services that respond to basic needs and bring a better quality of life while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations" (OECD 1997: Ch 1.2). More broadly, sustainability is generally conceived as comprising three dimensions: the social (including cultural preservation and equity), environmental (including clean air and water and biodiversity), and economic (including household needs and industrial growth) (Brundtland Report 1987).[2] Relevant to the discussion of sustainable consumption, some feel that economic sustainability is incompatible with the other forms of sustainability. As Seghezzo (2009: 544) asserts, "A significant…drawback of the inclusion of an economic dimension in the definition of sustainability is that a purely economic approach is, in some respects, incompatible with the long-term thinking required to attain inter-generational justice". There are countless barriers to sustainable consumption – from the stronghold of corporations and marketing agencies over culture and governance (Adorno & Horkheimer 1944; Marcuse 1964), to the material embeddedness of daily social practices like cooking or working (Warde 2005), to the way urban design necessitates the use of an automobile (Beatley & Manning 1997). Indeed, given these and other obstacles, those involved in work related to environmental sustainability could choose to feel hope for the pockets of sustainability that do exist and seek to theorize on the emergence and maintenance of such projects (e.g., Elgin 1977 and Etzioni 1998 on voluntary simplicity; Middlemiss 2009 on community organizations; and Seyfang 2008 on sustainable food systems and local currency trading schemes).

Because consumption is understood to be a way that people experience "rich, rewarding, and deeply human activity" (Heyman 2005: 116), pleas for reducing material consumption that eschew any materialistic foundation in our cultural values may fail to resonate with the majority of individuals, households, governments, and businesses

[2] There is, however, some logic to including 'economic' as an additional dimension of 'social' (Seghezzo 2009).

(Hobson 2002, 2003; Princen 2006). As interest in environmental issues waxes and wanes, it is imperative that arguments beyond the environmental imperative for reducing material consumption exist – Hobson (2002) argues that discourse based upon social justice resonates with a broad cohort of the public. In parallel research, Hobson (2003) demonstrates that merely providing facts is unlikely to change individual practice unless an explicit connection is made between a set of practices and broader political debates. There is evidence, too, that connection to cultural debates can deepen personal commitment to environmental behaviour: as Leiserowitz and Fernandez (2008: 32) state, we need to live "rich lives rather than lives of riches".

In order to build such narratives it will be necessary to understand the patterns and practices of those who reduce consumption, delve into contextual differences in behaviour, and explore ways that some are able to significantly reduce their consumption in our social milieu. Michael Redclift has stated that, "What remains to be discovered are the precise forms of political and social resistance that will come to characterize the withdrawal from carbon dependence." (2009: 381) It is therefore worthwhile to identify forms of resistance that have the potential to appeal to a broad audience, beyond those who are already committed to the pursuit of sustainability. This dissertation aims to contribute to each of these goals: locating new narratives of sustainable living; understanding contextual differences in behavioural patterns; and learning which sustainable practices would appeal to those not already interested in reducing consumption. After introducing the research objectives and central findings, I outline some of the theoretical perspectives that have informed the study of consumption and sustainable consumption.

Objectives and research questions

The broad objective of my doctoral research is to identify ways of thinking and associated modes of practice for reducing household material consumption. Reclaiming consumption emerges as a way of thinking and mode of practice that recognizes the significance of the local level, one's ability to influence others at that level, and the

benefits to quality of life and ability to reduce consumption that transpire when households engage with other residents in their neighbourhood interested in sustainable living. Throughout the research process I have tried to remain alert for literature and evidence in the data that point to sustainable daily practices that have the potential to speak to an audience beyond those who are currently environmentally aware. The papers comprising this dissertation address the following research questions:

- Chapter 2: What contributions have been and could be made by environmental sociology to the study of sustainable consumption?
- Chapter 3: What is the role of informal social networks in reducing household consumption?
- Chapter 4: Do households adopt unique clusters of sustainable daily practices?
- Chapter 4: If so, does place of residence, environmental attitude, or socio-demographic profile affect membership in such clusters?

In brief, the data collection for this dissertation began with 26 qualitative interviews with 13 families who are conscious of and seek to reduce their environmental impact. Through this process I noted that those households that were part of a like-minded group in their neighbourhood expressed greater commitment to reducing consumption and appeared to derive greater satisfaction from living sustainably. Therefore, I used a survey instrument to compare a suburban and an urban neighbourhood. The questionnaire was designed to gather data on sustainable daily practices, environmental attitudes, and to create a demographic profile. The early phase of this research began with a review of the literature that could be applied to the study of sustainable consumption. In chapter 2, I present this theoretical review and identify areas for future research. Chapter 3 presents results from the qualitative phase, highlighting the significance of informal social networks for sustainable living. Chapter 4 addresses the third and fourth research questions, introducing a wider set of behavioural practices and drawing on quantitative data from the questionnaire to present a cluster analysis of participants' behaviour and create profiles of the resultant clusters. The conclusion (chapter 5) summarizes the theoretical and practical contributions of the study, notes limitations and comments on directions for future research.

Central findings

The main findings from my research include elaborating on, and explaining, the value of a social practices approach when considering household sustainable consumption, and when examining sustainable (e.g., not owning a vehicle) and unsustainable (e.g., air travel) choices. Another central finding is that conspicuously reducing material consumption in a neighbourhood with other like-minded families can serve as an entry point to forming an informal network of alternative sustainable consumers. Those not part of such a network typically reach a plateau in their behavioural commitment to the environment and are largely ineffective at inciting change beyond their own household. These networks are pivotal for sustaining and increasing individual reductions in material consumption, for adding to quality of life, and for taking action on issues around sustainable consumption.

Environmental sociologists working in this area have largely focused on individual attitudes and behaviours on the one hand, and macro structural barriers to sustainable consumption on the other hand. Examining the informal neighbourhood network brings to light the ways in which groups of individuals are able to affect local level shifts towards sustainability and sustain their own level of commitment to reducing. A third result of interest is the way in which clusters of cases emerged in the quantitative analysis. A cluster analysis (described in greater detail in chapter 4) formed four interrelated collections of actions held by groups, which I labelled as "mainstream consumers", "material greens", "low level consumers", and "sustainable consumers" (Niemi & Hubacek 2007). Clusters vary by commitment to reducing consumption, attitudes towards the economy and the environment, level of education, place of residence, and reasons for choosing where to live. I found that sustainable consumers are more likely to live in a central neighbourhood and espouse environmental attitudes. In short, I found strong evidence to contradict Urry's (2010) assertion that sustainability practices are no longer influenced by the neighourhood in which one lives. Instead, I build on Dobson's (2003) work on ecological citizenship by contrasting an individual's agency when acting alone versus when acting with others. These findings are shaped by

my use of social practice theories: I consider individuals acting as part of a network as being more effective at reducing consumption and encouraging / allowing others to do so than an individual acting alone. Further, I view the physical and social parameters of neighbourhood to be highly significant as a structural influence on practices.

Sustainable consumption and sociological theory

Through the process of writing this dissertation I have gained a useful understanding of how sociological theory emerges from shifts in consumption patterns. Social theories of consumption and affiliated topics would be nearly impossible to map in their entirety and I focus solely on western industrialized patterns of consumption, drawing mostly on theories developed in the past 25 years. Early theorists, writing as industrialization grew in its influence over the populace, noted changes in spending patterns and norms as items became available for mass purchase (Bocock 1997). For example, Weber (1905) elucidated the role of protestant values for hard work and frugality in giving rise to capitalism; while Veblen (1899) theorized the behaviour of those in the New World, noting how status was tied to engaging lavish leisure pursuits and displaying fashionable goods without an obvious utilitarian purpose. Earlier, in seeking to explicate the way commodities come to be reified by individuals and society, Marx (1990 [1844]) used the term "commodity fetishism" (mistaking relationships between humans for relationships between things and prices) to describe the way that goods come to be imbued with godly qualities rather than associated with the individual who created the good. For example, he writes, "It is... precisely this finished form of the world of commodities—the money form—which conceals the social character of private labour and the social relations between the individual workers, by making those relations appear as relations between material objects, instead of revealing them plainly" (Marx 1990: 168-169). By explaining how associating a product with a monetary value severs the relationship between a good and its producer, Marx laid the theoretical groundwork for understanding how consumers may unwittingly purchase goods that are unjustly and unsustainably produced. This argument was later used by the Frankfurt School theorists to explore how advertising and

marketing are used to further obscure the conscience and ethics of the consumer and prompt consumers to purchase an endless stream of products they do not need.

From the late 1920s to the early 1940s there was a lull in new theoretical advances on consumerism. However, at the end of the war, new automotive technology and wealth (in North America) spurred growth in manufacturing and spending and gave rise to more aggressive forms of advertising and marketing (Bocock 1997). When the Frankfurt School theorists wrote about the culture industry they were taking aim at product advertising on the radio (Adorno & Horkheimer 1944). Arguing that advertisements create false needs, thus driving consumerist behaviour, this critical perspective was invaluable for illuminating the adverse affects of marketing, and is still highly relevant today. Yet structural influences on our consumption patterns cannot be wholly explained through a critical lens. Despite a strong marketing industry, there is a growing level of awareness of the environmental costs of consumption and some broadly adopted responses to this awareness (e.g., recycling programs, norms against littering, buying used items, resurgence of local eating and gardening) (Tickell 1992). The breadth of local responses (e.g., Transition Towns,[3] local food co-ops) emerging now has largely replaced earlier activist forms of national and international level environmentalism (Seyfang 2008). Some critique these local responses as inadequate to address the scope of environmental challenges, given that they rest more on the individual and appear to assume those in industrialized countries can change the world through our buying habits (Monbiot 2007; Seyfang 2005).

Lifestyle shifts and local political campaigns are examples of what Giddens (1994) calls new ethical spaces. In the face of rich theoretical work explicating our cultural tendency to consume resources (Baudrillard 1998; Gould et al. 2004; Holt 1995), and the social context that shapes our consumer society (Adorno & Horkheimer 1944; Marcuse 1964; Ritzer 2005), there is comparatively little work on how some are reducing consumption using new ethical spaces. Indeed, as Rootes has argued, "Local

[3] Transition towns are a grassroots imitative from the UK that seek to position neighbourhoods and cities on the path to meeting the goals of international climate treaties.

environmental campaigns have been relatively neglected in the literature" (2007: 723). In the following excerpt, Redclift (2009: 382, emphasis in original) makes a strong argument for examining the connection between lifestyle and environmental crises:

> Rather than speak loftily of the need to 'transform' human behaviour, we could make a start by analyzing how current behaviour is tied into patterns and cycles of carbon dependence. There are gains to be made in exploring why and how social and economic structures are *un*sustainable, including investigating the real costs of naturalizing social practices which carry important environmental consequences.

Below I will outline some of the theoretical work addressing motivations and mechanisms for reducing consumption.

Strong and weak sustainability; treadmill theory, ecological modernization theory

There are myriad motivations to reduce consumption, ranging from other-oriented to self-oriented. A good example of the other-oriented orientation to reducing consumption is illustrated in this comment from Speth (2010: 8): "Sustaining people, communities, and nature must henceforth be seen as the core goals of economic activity…The watchword of the sustaining economy is caring: caring for each other, for the natural world, and for the future." Other-oriented motivations could include global or local environmental justice, a concern for future generations, a sense of moral duty, or feeling the need to care for nature or other people (Kellert & Farnham 2000). Evans and Abrahamse (2009: 493) write, "'sustainable lifestyles' seem to emerge from and sit well with a range of other social practices relating to health, frugality, animal rights, human rights and social justice." In addition to these altruistic motivations, there exist self-oriented reasons for reducing consumption.

A self-oriented approach stresses the benefits to personal quality of life and well-being from reducing consumption. Downshifting and voluntary simplicity, for instance are among the more well-known methods for ending the destructive cycle of sacrificing more leisure time for higher wages (Elgin 1977). Methods for living better with less fill bookstore shelves, including *Your Money or Your Life*, to *The Not-So-Big Life*, to the magazine "Real Simple". Other media have picked up on this trend: in 2007, *Your*

Health, an Alberta-based health magazine published a story on living without a vehicle. Exemplifying the benefits to the individual from a low-impact lifestyle, the article reads, "Fitness from cycling can help people avoid chronic disease and increase strength, energy and mobility. The benefits of cycling are difficult to measure, but one report says they outweigh the risks of traffic fatality 20 to 1." However, for many individuals, the entry point to reducing consumption is likely to be a combination of self and other-oriented motivations (Soper 2004).

With respect to mechanisms for reducing consumption, there exist two threads of argument in the literature, weak and strong sustainability (Fuchs & Lorek 2005; Naess 2006). The fundamental difference between the two is that weak sustainability reflects the belief that by encouraging corporate and government support for "greening" technology and the economy, it is possible to curb society's consumption to sustainable levels (Lomburg 2002). Strong sustainability holds that such improvements guarantee no long-term reductions in material consumption unless cultural, psychological, and behavioural changes are made, with the involvement of governments and citizens. Thus, strong sustainability refers to reducing consumption *levels* rather than simply altering consumption *patterns*. Evidence of weak sustainability can be found in the corporate sector when consumers are encouraged to "save the planet" by "buying green" (Conca 2001). As Speth (2008: 149) explains, "Green consumerism does not stress reducing consumption overall, but it does want consumers to buy green products and it wants corporations to produce them." Strong sustainability has been articulated by numerous academics (Dietz, Rosa & York 2009; Kallis et al. 2010; Rees 2009; Uzzell & Rathzel 2009) and non-governmental organizations. It stresses the need to reduce levels of consumption rather than merely alter consumption patterns.

On the other hand, dematerialization, or de-growth, "argues that current levels of consumption are both environmentally and socially damaging and that better lives and a better environment can be found by reducing consumption." (Speth 2009: 149) Weak sustainability is critiqued for being merely another way for corporations to profit, through selling high-priced "green" products (Lintott 1998; Sandilands 1993) while others

critique strong sustainability as being untenable, arguing that an economy that is not growing is unstable, and will sacrifice quality of life and democratic principles (Friedman 2006). Jackson (2008) points out that one can only be sure that strong sustainability is reached when the rebound effect is minimized (where savings in one area of consumption are not simply spent elsewhere, with similar environmental impacts). In practice, it is likely both approaches will be necessary to achieve sustainable consumption (Fuchs & Lorek 2005), yet the unwillingness of most in the public and private sectors to acknowledge the need to reduce overall levels of consumption is a point of concern and barrier to all forms of sustainability.

To a certain degree, the two paths to sustainability described above reflect two of the strongest theories from environmental sociology. Ecological modernization theory (Spaargaren 2003; Spaargaren et al. 2006), at least in its earlier form, places much emphasis on the role of technology in securing a more sustainable future. Ecological modernization theorists cannot foresee sustainability emerging without a strong presence from the public and private sectors. Built from a social practices standpoint, it posits that structure and agency interact to define the daily behaviours in a society. It locates potent agency in individuals and hope in the role of reflexivity in prompting new social practices. Spaargaren et al. (2006: 24) argue that the role of the state is to seek to "trigger reflexivity by de-routinising social practices, [and in this way] activate human agency." Opponents of this view critique the emphasis on freedom of choice, or human agency, and the potential for innovation by motivated actors who tend to have disproportionate spending power. For example, Neil Smith (2007: 17) sees ecological modernization as "nothing less than a major strategy for ecological marketisation and financialisation which radically intensifies and deepens the penetration of nature by capital." In a less critical manner, Sonnenfeld (2009) notes that ecological modernization theory is insufficient for examining dematerialization and global sustainability. For instance, he asks, "Is ecological modernization in advanced industrial societies dependent upon *increased* materialization elsewhere?" (387, emphasis in original)

Those who espouse treadmill theory would likely argue that the approach of ecological modernization is insufficient to meet the tenets of strong sustainability. Treadmill theory (Gould et al. 2004) holds that reductions in material consumption will not transpire as long as society is locked into unending economic growth. In short, because economic growth requires ever-expanding production, consumers will always be prompted to buy more to stimulate the economy. The *treadmill of production* refers to the tendency of industrial economies to use surplus capital to increase production and observes the subsequent need to stimulate continuous growth. The competitive pressure of firms means that they each try to produce goods more cheaply than others, and maintain their advantageous position in terms of access to resources, access to markets, and lower labour costs. Some firms are unsuccessful in this competition, and get squeezed out of the competition, thereby concentrating wealth in fewer owners. The focus on constantly increasing production – even when profits are good – tends to undermine social and environmental government and industry priorities. Inattention to the externalities of accelerated production exacerbates inequalities, and leads to environmental harm via enormous waste in both production and consumption practices (Schnaiberg 1980; Gould et al. 2004).

Treadmill theory addresses consumption from a political economy vantage point, viewing consumption patterns as locked in by political and economic structures beyond the influence of consumers whereas ecological modernization theory addresses the nexus between structure and agency, attributing some agency to the individual, and more agency to partnerships between the public and private sectors that allow for capital and innovative ideas to come together. Ecological modernization theorists maintain an open orientation to the potential for ecological reform within the capitalist state. For example, examining the waste industry (Pellow et al. 2000; Vail 2009) treadmill theorists argue that attention on end of pipe solutions, such as waste management or recycling, ignores the powerful role of production in environmental outcomes. Rather, they argue, attention should be given to reducing consumption or reusing what has already been put to use, to truly affect environmental outcomes. Ecological modernization and treadmill theory both

help to illuminate macro trends that can undermine or remediate those society-environment relations that threaten environmental integrity.

Social practice theory

Contemporary theoretical perspectives on consumption are increasingly based on social practice theories. Social practice theories are unique from other macro theories in that social order is seen as being rooted in everyday practices, and everyday practices become the unit of analysis in empirical studies (Reckwitz 2002). Others have used social practice theory to demonstrate how engagement with environmental organizations can induce sustainable behaviours (Middlemiss 2009), how participation in a sustainable behaviour can change practical consciousness and daily practices (Hobson 2003), and how the normalization of unsustainable (Shove & Warde 2003; Hand & Shove 2007; Warde 2005) and sustainable (Middlemiss 2009; Seyfang 2008) daily practices arise. [4] As I show in chapter 2, perspectives on why human societies consume range from displaying identity and finding a place in one's culture (Douglas & Isherwood 1996; Campbell 2005; Miller 2001) to unthinkingly conforming to cultural norms (Adorno & Horkheimer 1944; Baudrillard 1998).

The strengths of practice theories for understanding consumption that Warde (2005) identifies include their ability to acknowledge a wide range of internally differentiated practices across space and time, to explore how body, mind, objects, agents, knowledge, structures, and discourses are incorporated into a set of practices, and to identify the routine nature of many consumption practices. For example, Hand and Shove (2007) explored how the freezer came to be commonplace in the United Kingdom. In so doing, they reveal discourses of convenience and practicality that are used to support material consumption, in this case, of a freezer. Through practice theories, sociologists can focus on how certain activities generate wants for material goods, and examine instances when practices are performed with minimal material input. However,

[4] Giddens (1984) describes practical consciousness as the habitual routines that are comprised of bodily practices, as opposed to discursive consciousness, which requires mental processes and contemplation.

overall, there is a stark lack of social theory adding to our understanding of sustainable consumption. Evans and Abrahamse (2009: 487) neatly summarize the gap in theoretical work on sustainable consumption, highlighting the need to examine sets of daily practices and to theorize their environmental relevance: "sociological work that does address lifestyles and the connections between social practices…has tended to be theoretical in nature whilst overlooking questions of environmental sustainability."

Ecological citizenship, reclaiming consumption, social networks

Ecological citizenship is a relatively recent sociological theory that seeks to locate acts of citizenship in the private as well as public sphere. Hobson (2002: 102) describes an ecological citizen as "someone who has internalized information about environmental problems, creating a sense of personal responsibility and duty that is then expressed through consumption and community actions." Dobson (2004: 10) sees the separation of public and private typical of mainstream approaches to sustainable consumption as problematic:

> For ecological citizenship, this separation of public and private cannot hold. For one thing, the household is the site of much ecological citizen activity, and for another, it may even be that the virtues of ecological citizenship are learned there.

Ecological citizenship calls on us to question the rights- and contract-based views of citizenship, which emphasizes our negative duties to one another (such as the duty to do no harm), over and above positive duties (such as the duty to help those in need). As Dobson (2004: 3) explains, "one of ecological citizenship's most crucial contributions to contemporary theorizing is its focus on the duties and obligations that attend citizenship." The discussion of duties aligns well with environmental discourse: most democratic states rest on the assumption that paying taxes and voting (our duties as citizens) affords us certain rights (access to education, protection of our property). Typically, our duties do not extend to people of other nations, to other species, or to future generations, yet our self-appointed right to consume and dispose of material resources impacts these entities (Dobson 2004). By empahsizing duties above rights and citizenship practice in the private sphere, ecological citizenship theory helps to understand why some individuals

take on greater responsibility to effect positive social and environmental change than do others.

I use the term "reclaiming consumption" to refer to a form of ecological citizenship that draws from work on social networks: an informal, collective approach that facilitates reductions in material consumption for members as well as to support social shifts to low-impact living. In this dissertation I demonstrate the enhanced ability of groups of households (as opposed to individuals) to effect change in their social context. Those who are reclaiming consumption act as part of a group and recognize that they are being impacted by and having an impact on their neighbourhood (in addition to being affected by larger societal influences). The neighourhood surfaces throughout this dissertation as an influential context for sustainable daily practices. The neighbourhood is where individual choices for how to structure one's day shape and are shaped by the types of households living in the same area (i.e., their commitment to reducing consumption), the services available in the area, and the distance of the neighbourhood to the city's core. Those who are reclaiming consumption recognize that living sustainably is made easier when one is surrounded by others who support a commitment to sustainability. Networks of ecological citizens are reclaiming consumption when they encourage the adoption of additional sustainable practices over time and space by altering local social norms and addressing other barriers to sustainability in their neighbourhood. Acting alone, it is difficult to establish a critical presence of households committed to sustainability; acting with others, it is possible to create a sense of something larger, and of being part of a social network that serves an important response to the demand for a more sustainable society.

Social networks could warrant much more attention than I provide here. I use the notion of a social network (a set of social actors between whom one (or more) social relation(s) are defined (Wasserman & Faust 1994)), to explain how commitment to reducing consumption can be a goal around which households can coalesce. Furthermore, I show that a social network has much potential to inspire change at the local level. Because the individuals I interviewed who felt part of a social network lived in central

neighbourhoods, I used a survey instrument to compare an older neighbourhood located near the city center with access to schools, parks, shops and services to a new suburban neighbourhood built 15 kilometres from the city center and providing few shops and services or parks within walking distance. By comparing two social contexts, I am able to show how daily practices are influenced by the neighbourhood in which one lives. Social context involves more than geographic space; as Doreain and Conti (2010: 1) explain, it is "made up of human and symbolic features" as well as spatial structure (geographic location, spatial design). Thus rather than elaborate on social network theory, I use the terms "network" and "informal network" to describe an assemblage of households that meets casually and irregularly but shares many of the same beliefs, attitudes, and daily practices, thereby influencing one another as well as the neighbourhood in which they act.

Overview of the Three Dissertation Papers

The social practices approach described in greater detail in chapter 2 is a theoretical orientation to the entire project. A social practices approach has led me to consider the importance of personal values and social context as two interacting and mutually reinforcing characteristics shaping our culture's daily practices. Because of my interest in describing values and behaviours that differ from the dominant cultural narratives of North America, in particular on subcultures of sustainable consumers (Shove 2003), I adopted an ethnographic interview approach by focusing on values and daily behaviours. The qualitative research yielded numerous findings of interest, yet I focus on informal social networks of citizens engaged in sustainable living, as this is a relatively new area of theory.

I include a discussion of context and clusters in the fourth chapter because, as expressed in chapter 3, I found that those informants living in communities with other like-minded families were able to form networks that coalesced around a shared commitment to the environment. I saw that these networks were more effective than

autonomous individuals at adopting environmental behaviours and encouraging others to do so. Informant families living in peripheral (suburban) communities, isolated from like-minded individuals seemed to plateau, becoming discouraged from taking on more demanding behaviours as a result of the structural barriers in place in their communities. As depicted in the descriptive, qualitative model presented in Figure 1-1, I interviewed members of households who expressed an interest in reducing their material consumption. Informants lived either in neighbourhoods near the city center or farther afield, in residential communities with few commercial areas. Those interviewed in central neighbourhoods stressed the value of having strong social ties with others who validated their desire to reduce consumption and encouraged them to adopt more sustainable daily practices over time. Those in peripheral areas had weaker social ties and were without neighbouring households with whom to share ideas and encouragement. This led to a levelling of their behavioural commitment to reduce consumption and led me to focus on a central-suburban comparison for the survey instrument. This represents an important contribution to the literature on sustainable consumption from this research: the mechanisms to reduce consumption are strongly shaped by the built environment and social norms in one's neighbourhood.

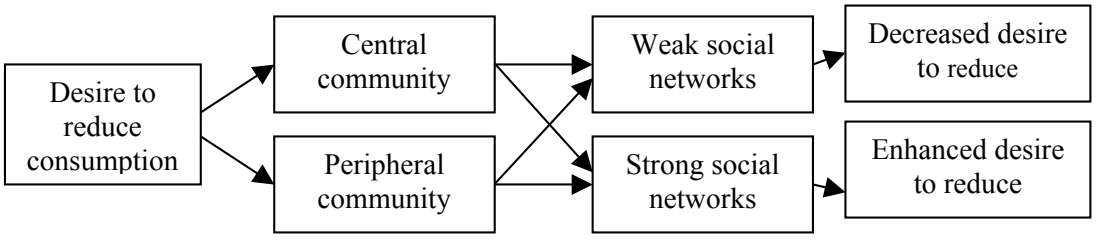

Figure 1-1. Sustainable consumption and social context, a descriptive model

Methodology

This research is informed by the principles and paradigmatic assumptions of mixed methods (see Appendix A for more detail). In brief, mixed methods combine qualitative and quantitative approaches to answer a series of research questions oriented around the same central objective (Bryman 2006; Bryman et al. 2008; Onwuegbuzie & Leech 2007). Most mixed method studies adopt a pragmatic paradigm (as opposed to a

positivist or constructivist paradigm), which sees no innate superiority in positivism or constructivism, which privileges the research question above all else, and which follows a critical realist ontological perspective – that certain "truths" may exist but each member of society may have their own interpretation of such truths (Carolan 2005). [5]

I could not have reached these conclusions without a mixed methods approach. The qualitative phase was invaluable for developing a comprehensive list of behaviours that committed individuals undertake to reduce their own impact and to aid others in doing so. The interview analysis also helped me to identify the mechanisms by which reducing consumption can add to one's quality of life and to get a better sense of how context shapes well-being and daily practices. The quantitative component allowed me to see the existence of clusters of cases, and to question my own assumptions about urban and suburban living. The qualitative portion of this research comprised 26 ethnographic interviews with 13 families (two interviews with each informant). These include interviews with nine women, two men, and two couples. The first interview was semi-structured (see Appendix B for interview guide) while the second built on the results of the first round of interviews, to delve deeper into unique features of the interview and ask questions related to themes that emerged from an analysis of the first phase of interviews. I describe the interviews as "ethnographic" because of my focus on values and actual practices, as well due to my efforts to avoid making judgments on informants' practices (Spradley 1979).

In the interviews I found that individual motivations to reduce consumption are linked to one's perception of others in the neighbourhood where one lives. There are more households who are reducing consumption in areas with a supportive network of like-minded others, and fewer households reducing consumption in neighbourhoods that are solely residential and are located at a distance from the city center. [6] Further,

[5] Positivism holds that the nature of reality is independent from human perceptions and consciousness while constructivists argue that what we perceive as "reality" is highly contingent upon our own socialization and our place in the world.

[6] It is worth noting however, that I cannot discern whether those who are interested in the environment simply choose to live in well-serviced, central neighbourhoods and would continue to reduce consumption regardless of connection with others in their neighbourhood. Regardless, structural barriers to sustainable

informants in central neighbourhoods tended to reduce consumption more drastically. Thus, the survey was designed to provide empirical data on two urban contexts: suburban and central neighbourhoods. From a theoretical perspective, examining context at the neighbourhood level provides a useful bridge between macro and micro theories of consumption. For example, locating the suburb as a response to demands for affordable and expansive housing within a political economic climate predicated on cheap fossil fuels, explicates the distance from the city centre at which these neighbourhoods are built. This research provides insights into the differences between suburban and central neighbourhoods at the level of sustainable daily practices. This analysis contributes to understandings in environmental sociology of the importance of social context in shaping behaviour and the myriad ways that deciding where to live shapes everyday decisions such as how to commute to work, how many days to shop at the grocery store, and whether or not to become engaged in one's neighbourhood.

The study was conducted in Edmonton, AB. I chose the neighbourhood of Millcreek as the representative central neighbourhood, it has roughly 700 homes. I hoped to have a complete sample size of 200 from each neighbourhood and expected a 50% response rate. As such, I chose to visit each home in the two areas rather than conduct random sampling. While the research team knocked on the doors of each home in the area, we were only able to convince 375 households to participate in the survey. Of these, some questionnaires were not returned, some were returned blank, and others were incomplete. I located an area in Terwillegar Towne, the suburban area, with roughly the same number of homes as Millcreek, and delivered questionnaires in a census fashion there as well. With a team of three undergraduate students and one graduate student, I delivered 750 questionnaires – 375 in each neighbourhood. The overall response rate is 69% (Completed / (Delivered – Incomplete)). See Table 1-1 for details on the response rate. A copy of the survey instrument is located in Appendix D.[7]

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living (e.g., distance from the city centre limiting avoidance of vehicle-use) poses a constraint on those who choose to live in neighbourhoods built at the periphery of the city.

[7] Questionnaires returned with errors were missing substantial amounts of information, most often demographic information. Those returned blank were considered "rejected" and those not returned were those that were not picked up by the research team or mailed in by the respondent.

Table 1-1. Response rates

	Terwillegar Towne	*Millcreek*	*Total*
Delivered	375	375	750
Returned, n	237	254	491
Returned, %	66%	71%	69%
Returned incomplete	17	18	35
Not returned	98	93	191
Delivered and returned blank	23	10	33

Summary

The following dissertation includes selected findings from the results of a mixed methods study of sustainable consumption. In this chapter I introduced the objectives and research questions guiding this study, highlighted the central findings of the study, and presented a literature review to help the reader to place this work in a broader theoretical framework. The aim of this dissertation is exploratory: to identify ways that individuals committed to reducing consumption can alter local social contexts, and to better understand how unique behavioural patterns arise in different urban contexts (central and suburban). In the following chapters I hope to give the reader a rich understanding of the myriad lifestyles that exist with respect to daily consumption practices, as well as to develop greater interest and curiosity around the role of informal neighbourhood networks in supporting sustainable communities and responsible citizens. I have employed the term "reclaiming consumption" to refer to the improved efficacy of households when acting as a collective, compared with households acting alone to reduce consumption.

In chapter 2, I present a review of literature pertaining to the study of sustainable consumption. Theories are distinguished as "individual", "structural", or "social practices". I conclude that the social practices approach shows much promise for understanding daily practices of those committed to reducing consumption. Chapter 3 presents data from 26 qualitative interviews with families who self identify as seeking to reduce material consumption. Through the interviews I noted that those who reduce consumption in a context with fewer structural barriers to sustainable daily practices including a network of other households with similar values and objectives are more successful in their aim to live sustainably and describe reducing consumption as a

pleasure, not a sacrifice. In chapter 4, I use a survey to compare an urban and a suburban neighbourhood to examine whether the social and structural differences can explain differences in the adoption of sustainable practices. Chapter 5 concludes the dissertation with some commentary on future research, and policy and theoretical contributions.

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CHAPTER 2: TOWARDS A SOCIOLOGY OF CONSUMERISM

Published in the International Journal of Sustainable Society[8]
Written with Dr. Naomi Krogman[9]

Introduction

Numerous indicators suggest that as our global community continues to grow in numbers, we are also rapidly increasing the quantity of goods consumed per person (Durning 1992; Ehrlich & Goulder 2007). Well-known conservation biologist E.O. Wilson has commented that current consumption trends cannot be sustained given the finite nature of the planet. He writes that long before the "ultimate limit" is reached, "the world will surely have become a hellish place to exist." (Wilson 2002: 34) Evans and Jackson (*In Review)* have suggest the term 'sustainable consumerism' in lieu of 'sustainable consumption' as it is consumerism – consuming as a way of life – that is a greater threat to sustainability. The growing popularity of shopping as a recreational rather than a functional activity is a disturbing trend, one that would benefit from more focused sociological inquiry, and one that is possibly more environmentally significant (Bell 2004). We describe the act of meeting basic needs with material goods as 'consumption' and the practice of consuming as a way of life as 'consumerism'.

Consumerism is not a new phenomenon but our current social context is unique: decreasing prices for many consumer goods (e.g. vehicles and electronics), and exponential increases in population and goods for sale. Consumption and consumerism can have negative impacts on natural resource stocks and ecosystem services, resulting in pollution and waste. However, while our attempts to meet basic needs for food, shelter and clothing may exacerbate environmental degradation, I argue that it is the phenomenon of consumerism that is a more pertinent area of inquiry for sociology,

[8] Kennedy, E.H. and N.T. Krogman. 2008. Towards a sociology of consumerism. *International Journal of Sustainable Society*, 1(2): 172-189.
[9] An earlier version of this paper was presented at The Social Context of Waste conference in 2007. I took the lead on reorganizing the manuscript to include a social practices perspective and reorient the paper from a focus on waste to one of sustainable consumption. I was responsible for revising much of the paper after receiving feedback from reviewers.

particularly environmental sociology. In this article I aim to stimulate a dialogue to move towards a sociology of consumerism. That is, I am not trying to build a theoretical argument, but to encourage greater use of sociological theories in the study of consumerism, and to move to consider the environmental causes and impacts of consumerist practices. My objectives are, (1) To offer a basic introduction to a selection of the substantial existing work on consumerism in sociology; (2) To discuss key works within sociology to bridge consumerism and the environment; (3) To describe these theoretical advances clearly such that interested scholars are better equipped to conduct their own focused reviews of the literature; and, (4) To recommend strategies for future research.

In order to represent the theories described in a clear and instructive manner, I group existing theories into three categories: structural, individual, and social practices. Structural approaches generally consider the social structures and institutions that maintain (or challenge) consumerism. Individual approaches consider the impetuses for and effects of consumerism on individuals. Social practices approaches examine lifestyles of specific groups, enclaves of those tied to a system of provision (for water, housing, garbage collection) and consumption behaviours and general rules of thumb within particular milieus. For each, I provide an example of research that used the theory in an empirical study.

The paper is structured into two broad sections: in part one I seek to make a case for the importance of a sociological inquiry into consumerism. In this section I argue for the importance of incorporating the study of consumerism into environmental sociology and define consumption and consumerism. In part two I review the three theoretical approaches advanced in sociology mentioned above (the structural approach, the individual approach, and the social practices approach). I conclude the paper with some comments on the relationship between the three approaches and our rationale for arguing that the social practices approach may prove to be the most useful theoretical perspective for creating policy-relevant research.

Part I – Sociology & Consumerism

The social sciences can offer perspectives on urban design, policy, ideologies, social norms, and human behaviour patterns to the study of consumerism. In this article I review three levels of sociological inquiry that could advance academic understanding of consumerism: structural, individual, and social practices. Numerous sociologists have explored the mechanisms that encourage consumerism, each focusing on a unique feature of the social trend (Veblen 1994 [1899]; Baudrillard 1998; Spaargaren 2003; Ritzer 2005; Bauman 2007). Research that seeks to understand the symbols, values and structures of consumerism could inform policies designed to move to more sustainable patterns of behaviour (Myers 1997; Conca 2001). I feel this is a neglected area of attention, and like Princen et al. (2002) and Ritzer (2005), argue for increased contributions from sociology to the study of consumerism.

The role of sociology in the consideration of consumerism

While the role of consumption in human interaction and societal outcomes is addressed across a variety of disciplines, such as consumer studies, marketing, business, economics, psychology, and anthropology, I focus on sociological contributions. Sociology has traditionally focused on the causes of consumerism at individual and societal levels (i.e., Veblen 1994 [1899]; Adorno & Horkheimer 2005 [1944]). In contrast, conservation biologists' and environmental scientists' focus on consumerism gives primacy to its effects on natural resources and ecosystems (i.e., Arrow et al. 2004; Ehrlich & Goulder 2007).

Environmental sociology brings a unique perspective to the study of consumerism, focusing on the impacts that natural systems have on human beings as well as the impact humans have on the environment, with explicit attention to social beliefs, behaviours, and collective action. For instance, one environmental sociology study demonstrated how publicized evidence of the environmental consequences of plastics sparked conscious efforts by citizens to curb their use of plastics, by choosing products

with less packaging and higher in recyclable and biodegradable content (Thogersen 1999). This example points to how a sociological perspective can foster scholarship that addresses the social influences on conscious and reflective purchasing practices. Although I would like to narrow our discussion of theories of consumerism to the field of environmental sociology, there is limited research in this area. Thus I draw from a rich history of sociological literature in order to add depth and breadth to the sociology of consumerism.

Definitions of consumption and consumerism

Though many readers may understand what I mean by the terms 'consumption' and 'consumerism', there are some attributes of each that I would like to discuss, as well as the relationship between the two. Consumption is typically considered to include the purchase, use, and disposal of consumer goods (Stern 2000). Inherent in the word is the concept of using up, or consuming. Stern also advances the following definition, highlighting the dual role of producer and consumer and stressing the environmental consequences:

> Consumption consists of human and human-induced transformations of materials and energy. Consumption is environmentally important to the extent that it makes materials or energy less available for future use, moves a biophysical system toward a different state or, through its effects on those systems, threatens human health, welfare, or other things people value (1996: 20).

Stern's definition is more ecological than sociological. Although any consumption of natural resources has the potential to bring about environmental damage, not all consumption is inherently unsustainable. Thus some have suggested that scholars distinguish between consumption and *consumerism* (Evans & Jackson *In Review*). In order to minimize the environmental impacts of consumption, I might be wise to consider how to best meet basic human needs with minimal input from natural resources (Princen et al. 2002).

Sociology surely has a role to play in understanding the adoption of environmentally friendly products into acts of consumption. Even more relevant though is the consideration of acts of meeting nonmaterial needs with material goods

(consumerism), given the roots of consumerism in social organization and social behaviour, and the environmental consequences of these actions. For example, sociologists are in a particularly good vantage point to address how people can achieve a sense of security and connection to each other through relationships less reliant on excessive material exchanges (Bellah et al. 1985). Robert Bocock defines consumerism as "the active ideology that the meaning of life is to be found in buying things and pre-packaged experiences" (1997: 50). The theories I outline in this article address consumerism and while each theorist may have a slightly different conception of the term, common to all is the assertion that consumption practices are no longer isolated acts but are a way of life.

In order to encourage more discussion around the sociology of consumerism, the following section presents a review of relevant sociological theory that could be used to develop theory on the nexus between consumerism and the environment. The first subsection describes the structural approach to consumerism. Next I introduce sociological work on consumerism as tied to individual identity and finally, I present social practice theories, which call on both structural and individual approaches to understand patterns of behaviour. What distinguishes the three approaches from one another is the unit of analysis: structural theories focus their attention on structural variables such as state entities, corporations, and social norms; individual theories examine the beliefs, values, and motivations of the individual, while social practice theories focus on the routine, daily practices within a social group. I conclude the article with a discussion of the importance of the sociology of consumerism, the interconnectedness of these three approaches, and recommendations for future research.

Part II – Sociological Approaches to Consumerism

The structural approach

Common to all structural approaches to consumerism is a consideration of the influence of large social structures, often political (such as the government) and

economic (such as corporations and trade organizations). The theorists I include here share an interest in how modern capitalism promotes consumerism. One of the clearest examples of a structural approach is the theoretical and empirical work of Juliet Schor. Schor uses information about the structure of work and leisure time in modern capitalist societies to explain the growing prevalence of consumerism. Another structural approach is Ritzer's analysis of the new means of consumption; Ritzer examines the physical design of consumption spaces, terming these 'cathedrals of consumption'. Baudrillard examines the consumer society and criticizes the market more generally, building on Marx's work on alienation and Levi-Strauss's structuralism to show how goods are increasingly purchased for their symbolic value (Bocock 1997). Baudrillard also describes how the symbolic communication of goods and services, as tied to status and power, drives consumerism. Finally, Bauman examines the ways that under capitalism, citizens are encouraged to reinvent themselves continually, discarding old objects and purchasing new ones, and how this cycle drives consumerism.

Work, time & consumerism

In *The Overworked American: The Unexpected Decline in Leisure*, Juliet Schor (1991) notes that the typical citizen of the United States of America has worked more hours each year since the 1960s, and that leisure time has declined. The benefit of this decline in leisure time has been an increase in productivity. Longer work hours yield greater productivity and a wider array of goods available to the consumer. The increase in work hours has interesting consequences for consumption (and consumerism): increased productivity both in the United States and abroad has greatly expanded the size of consumer markets. Increases in consumerism have taken place despite the fact that numerous studies indicate that overall levels of happiness and well-being have failed to rise with increased wealth beyond a moderate level of income and spending (Duncan 1975; Schor 1999; Anielski 2007).

Contributing to this lack of recognition that more 'stuff' might not bring more happiness, Schor (1991) describes the 'work-and-spend' cycle. The work-and-spend

cycle describes 'treadmill-type' logic where working longer hours and having more disposable income increases one's desire for consumer goods, which then fuels one's need to work ever-longer hours. The weak correlation between well-being and consumption, as well as between well-being and the number of hours worked, suggest that various structures in society hide this paradox. Of importance here are institutional practices, particularly those that encourage higher consumption, through easy access to credit cards, cultural norms of debt, status tied to material goods and work cultures, the marketing of convenient goods to time-stressed individuals, and the nature of physical surroundings tied to transport and basic provisions of goods.

Work hours may be relevant to environmental degradation (as Schor theorizes), quality of life, and consumerism. Although "there are no detailed empirical studies linking environmental degradation and hours of work" (Schor 2005: 46), there is work that posits that decreased work hours could be associated with reduced levels of spending on consumer goods and with higher self-assessed quality of life, termed the "double-dividend hypothesis" (Jackson 2005). Alternatively, the mechanism driving high levels of consumerism among those with high work hours and little leisure time may be that "Expensive leisure goods that symbolize a wished-for self-identity or lifestyle are purchased by high-income earners with little leisure time." (Sullivan & Gershuny 2004: 79). Doubtless, more empirical work in this area would strengthen our understanding of the relevance of the theories advanced thus far.

The new means of consumption

Sociologist George Ritzer draws on the work of Max Weber, Karl Marx, and Jean Baudrillard in his analysis of the "new means of consumption", where the substance, amount and ways in which we consume have changed to make consumption ubiquitous and a normalized focus of social life. Ritzer uses Weberian theory to clarify how rationalization, that is, an emphasis on efficiency, predictability, and high degrees of control over products and prices, encourages consumption. Concurrently, Ritzer (2005) argues that cathedrals of consumption, such as mega-malls, amusement parks, even

airports, serve to distract the consumer from the rationality and calculability of their operations, and rather emphasize the enchantment with what is new, different, entertaining, and modern. Ritzer notes that rational settings would only lead to disenchantment, thus his discussion centres on how the cathedrals of consumption have captured the 'phantasmagorical' in order to re-enchant consumers and keep them returning.

To demonstrate this phenomenon, Ritzer introduces corporations that are well-known in much of the world – McDonald's and Disneyland. McDonald's, a cathedral of consumption in the purest sense, uses bright colours and humorously named hamburgers to sell more of their products. Yet the monotony of McDonald's, the homogeneity of a company whose restaurants look remarkably similar whether one is in Bangkok, Delhi, Vancouver, or San Jose, would surely lead to disenchantment for its customers. To re-enchant the consumer, McDonalds has used Disney themes, new free toy giveaways, and advertisements of popular animated characters to bring customers, especially young customers, back into the restaurant. Ritzer describes the new means of consumption and how they "enable us to consume all sorts of things" in a cycle of repetition (2005: 6).

An interesting application of Ritzer's theory is in the field of urban studies. The application of Ritzer's description of 'cathedrals of consumption' to cities opens interesting avenues for understanding how urban design can facilitate consumerism (Gotham 2007; Jones & Wilks-Heeg 2004). For instance, Jones and Wilks-Heeg examine Liverpool's successful bid to be named "Capital of Culture". Such urban branding, they argue, is used to encourage investment, employment, and new business development. Such aims ultimately facilitate a rise in consumer spending. The authors express concern that such commitment to the political economy are rarely associated with meaningful improvements to "existing social, cultural, and economic inequalities" (Jones & Wilks-Heeg 2004: 357-358). Like Ritzer, Jones and Wilks-Heeg warn against the branding, and retail homogenization that often follows, as a detriment to regional culture that is often carried out to boost economic activity. Whether the 'cathedral of consumption' is a restaurant, mega-mall, amusement park, or city, work on the new means of consumption

draws our attention to the ways that low quality goods that provide little benefit to our well-being and damage the environment can nonetheless be sold in vast quantities.

The consumer society and the society of discarding

Throughout his work, Baudrillard describes how objects function as a "code" of signs rather than simply as objects of use. His analysis proceeds to describe how the object as a sign eventually ceases to relate to the object we may instinctively associate with it, but rather to other signs. The combination of signs and the meanings they take on are termed a "code". For example, while one may not need or frequently use a cell phone, possession and display of it can immediately connote importance to others. In fact, status seekers have been found to use fake cell phones that would ring and light up, often all that is needed to communicate importance and status to an intended audience (Angier 2000).

Baudrillard highlights how much of our consumption is overwhelmed by sign values and are thus completely neutralized: "The code is totalitarian; no one escapes it: our individual flights do not negate the fact that each day we participate in its collective elaboration." (2001: 22). For example, to be considered a successful worker in most urban settings, you need a car, credit card, and cell phone. Any deviation from this would require justification for denying oneself such socially accepted 'needs'. Gradual acceptance of codes creates patterns of unthinking consumption. Baudrillard argues that those in the consumer society need to consume to feel alive, and that consumerism has become the "social labor" of living just as there is "productive labor" in the workforce. In modern capitalism, Baudrillard argues, citizens are considered consumers and are enticed to spend time shopping. Those who have excess wealth can raise the bar on status and experimentation of shopping as an experience. Baudrillard's analysis reminds the reader that a consumer society is a society of waste and shopping. The consumer society is in fact only 20% of the world's population, but is responsible for 86% of the world's consumption (Taylor & Tilford 2000).

In a similar vein, Bauman (2007) argues that the consumer society "thrives as long as it manages to render the non-satisfaction of its members perpetual" (47). The temporary fix on dissatisfaction rests on buying more things and discarding those that are associated with old expectations. Bauman argues that new expectations need to be continually created; "for new hopes promptly fill the void left by the hopes already discredited and discarded, the road from the shop to the garbage bin needs to be shortened, and the passage made ever more swift" (48).

Some argue that the rapidity with which products are discarded is also a function of declining product quality. Also called planned obsolescence, this trend refers to producers' attempts to "artificially limit the durability of a manufactured good in order to stimulate repetitive consumption" (Slade 2006: 5). For instance, although an iPod may last for decades (and will likely be in a landfill for millennia), the battery is designed to have a finite lifespan. Rather than produce the item in such a way that a new battery could be purchased, consumers must replace the dead battery with a brand new iPod.

A structural point of view allows us to look at how features of our society constrain sustainable consumption behaviour. All of the strucutral conditions discussed above – work hours and leisure time, cathedrals of consumption, and the consumer society and the culture of discarding – lead us to ask how the individual exists within these structures. Researchers in this area who wish to pursue consumerism may examine the cooperative and powerful interests that support consumerism, and study challenges to consumerism by focusing on the organization of alternative economic systems, which promote reducing and reusing goods, and work-and-spend lifestyles that encourage thoughtful consumption and reduced status markers tied to material wealth. While behaviours are routinised and embedded in socio-technical systems around energy, water, food, and land management that encourage certain patterns of living that lead to consumerism, the structural approach is limited in the conclusions that can be drawn as to the social psychological causes and effects of consumerism.

The individual / human agency approach

The individual or human agency approach focuses on the psychological or social mechanisms that promote certain forms of consumption behaviour. Of great relevance here is Thorstein Veblen's theory of conspicuous consumption, Elizabeth Shove and Alan Warde's work on inconspicuous consumption, and Mary Douglas' work on the identity-forming aspects of consumption.[10] The individual approach examines the social drivers of consumption behaviour. Though some theorists, such as Mary Douglas and Colin Campbell argue for the benefits of consumption behaviour, others take a more critical stance: Veblen, Shove and Warde highlight the wastefulness and thoughtlessness of many consumption practices.

Conspicuous consumption

In '*The Theory of the Leisure Class*' (1994 [1899]), Veblen argues that much consumption is conspicuous, that is, practiced with the intent of displaying or conveying one's status. Conspicuous consumption can confer status in a materialist society where one's command over the environment, so to speak, suggests greater control over one's life, and thus represents an enviable position (Veblen 1994 [1899]). Among the mechanisms encouraging conspicuous consumption is the tendency for social comparison, or for people to compare how well off they are relative to others. One way to demonstrate one's status is to accumulate and display possessions. To apply this argument to current conditions, people may shop to buy clothes, furniture, food, to show one's sense of style and ability to be different from others. As one's identity is always evolving, and new products are advertised as fitting for certain personalities and lifestyles, we are propelled to consume more.

Veblen describes the motivation to consume as primarily a means of enhancing one's status in the eyes of others. He writes, "The motive that lies at the root of

[10] Note that the work of Slavoj Zizek and Jacques Lacan on needs and desires draws on theories of psychoanalysis to understand the mechanisms that create desire. However, as this paper represents a cursory overview, we do not delve deeper into these works.

ownership is emulation…the possession of wealth confers honour; it is an invidious distinction. Nothing equally cogent can be said for the consumption of goods, nor for any conceivable incentive to the accumulation of wealth." (1994 [1899]: 17). Bourdieu (1977) extended this argument, maintaining that *all* consumption is designed to confer status on the consumer and that one's specific tastes are very much related to one's rank in society. Similarly, Bauman (2007) contends that consumers have become commodities, reinventing themselves as sellable entities in a social world that values individualism and social comparison. These theorists imply there remains the seed of individual motivation: the desire to better, or communicate, one's status through consumer goods.

Other scholars have argued that conspicuous consumption is far less common than when Veblen wrote, either because consumerism is now so much a part of daily life in the consumer society that overt displays of wealth have little relevance (Shove and Warde 2002) or because such conscious displays of wealth no longer occur (Trigg 2001). One study used surveys with 18-25 year olds to examine whether conspicuous consumption is still socially relevant and if so, in what contexts the desire to consume in this manner exist (O'Cass & McEwan 2004). The authors found that conspicuous consumption still occurs, defining the phenomenon as "The tendency for individuals to enhance their image, through overt consumption of possessions, which communicates status to others." (2004: 34). They also found that fashion clothing is the most often used commodity by which to consume conspicuously and that young men are more likely than young women to be conspicuous consumers. Finally, the authors emphasize that the presence of others is a necessary requirement for effective conspicuous consumption (O'Cass & McEwan 2004).

Inconspicuous consumption

One of the few offerings to the study of consumerism that considers the impact of consumerism on the environment is Elizabeth Shove and Alan Warde's (2002) notion of inconspicuous consumption. The authors were interested in "why people

consume as they do and as much as they do, especially when this is known to put unsustainable strains on the environment." (232). Consequently, they turn to theoretical work from marketing that looks at how to sustain and accelerate consumer demand. The authors make an association to the environment by considering how the mechanisms from marketing influence environmentally significant consumption; specifically their interest is in the increasing rate of goods purchased rather than the specific choice of one good over another.

The authors describe several mechanisms that encourage consumption at the individual level. Among the mechanisms is the tendency for social comparison, or for people to compare how well off they are relative to others. One way to show one is doing as well or better than others is to accumulate and display possessions. For example, the authors observe "omnivorousness" among North Americans, i.e., the tendency to buy specialized equipment for every eventuality, and in so doing, exhibit a freedom to be equipped for any possible activity. Even though they may rarely use these items, the freedom of choice is gratifying, propelling them to buy even more specialized equipment they rarely use, and could easily rent for the rare occasion that they would use it.

Conspicuous consumption, then, has become inconspicuous; it has become so ordinary that conveying status and prestige through consumer goods is the rule rather than the exception. This trend may be accelerated by the tendency to buy in order to build self-identity, and this message is heavily reinforced in advertising. People may shop to buy clothes, furniture, food, to show one's sense of style and ability to be different from others. As one's identity is always evolving, and new products are advertised as fitting for certain personalities and lifestyles, we are propelled to consume more to continue to "produce one's self" (Shove and Warde 2002: 235).

Other mechanisms Shove and Warde (2002) identify that increase demand for goods and services at the individual level include the "Diderot effect", the increased specialization of consumer goods, and social pressure. The "Diderot effect" is the

notion that items should match one another. The pursuit of matching thus leads to a continuous replacement of items, where someone might purchase all new furniture to go in their new house or to match their new renovations. Specialization of numerous consumer goods, especially those associated with technology and recreation, can also increase consumption, as people increasingly try to upgrade and add to their suite of items for a particular activity. Finally, the social pressure associated with gift-giving on holidays and special occasions present another mechanism that encourages individuals to consume – birthdays and Christmas' are increasingly celebrated with an abundance of material exchanges.

The mechanisms Shove and Warde identify permit a rigorous theoretical inquiry into many common trends. For example, in setting up a home office, it is commonplace for people to purchase a computer, with elaborate hardware, software, printer, and fax machine, and continuously add to such equipment as new specialized items become available (Shove and Warde 2002). By exploring the pressures that convince us that such choices are acceptable in the face of growing evidence of the environmental impacts of such choices, researchers could reveal powerful individual motivations and pervasive social norms that exacerbate consumerism.

In a later article, Hand and Shove (2007) conduct an empirical study of household freezer use in order to explore how owning a freezer has become commonplace and has assumed the role of a necessity. They found that the freezer has entered the public domain as a basic need because of the potential to save money by storing cheaply or special-opportunity purchased food (such as supermarket specials or wild berries) and for convenience (such as having ready-made meals on hand that need only be thawed). The authors emphasize that the role of the freezer in an individual's daily life is continually reproduced, suggesting that "conventional narratives of 'normalization' require constant updating" (2007: 99). The freezer, once a novelty and appliance suggesting wealth, is now owned by 97% of households in the United Kingdom (Hand & Shove 2007). The mechanisms of social comparison and

specialization have worked in tandem to secure the freezer a place in the list of 'necessities' in many nations.

Identity construction

Douglas (1996) criticizes Bourdieu's generalization of class-specific consumption (see page 48 for an overview of Bourdieu's work), drawing our attention to the variation that exists within social strata. As she writes, Bourdieu's theory of taste "does not explain how goods are chosen in a community in which everyone is more or less equally well endowed" (1996: 144-145). She describes the identity and community-forming roles of consumption patterns, which she refers to as the "constitutional monitor" (1996: 145). For example, those who shop at the organic food store, farmer's market, and consignment shop may develop a sense of community precisely through their consumption patterns. Thus the individual can choose what to do and what to buy as "part of a project to choose other people to be with who will help him to make the kind of society he thinks he will like best." (1996: 145). In some ways Douglas is invoking a social practices logic here (more to follow) – acknowledging a diversity of consumption practices and considering the broader effects of consumers' choices.

Douglas considers the individual logic of need, desire, and time as they relate to consumerism, particularly the role of instant gratification. She describes the tendency for individuals and communities to forego long-term goals to satisfy short-term desires. For example, an individual may wish to be thin and fit in the long-term, but momentarily succumbs to the enticement of a cream bun because it "seems a minor interruption of the main plan to reduce weight; it is conceded because it is so inconsequential to the success of the main project" (1996: 146). Thus Douglas concedes that it is not surprising that environmentally-concerned folk fail to forgo consumer goods, rather, "The curious thing would be that [their] control was ever successfully exerted" (1996: 146). In other words, individual goals and best interests can often be overwhelmed by the overabundance of opportunities for instant gratification in a consumer society. Distinct from a structural view, which might view the overabundance of opportunities for instant gratification as a

function of modern capitalism, Douglas' interest is not in how we came to have so many goods on display but rather in how individuals react and relate to those goods.

One application of Douglas' identity theory is Gram-Hanssen and Bech-Danielsen's (2004) study of identity and the home. The authors found that different neighbourhoods are associated with unique symbolic values and that these values shape individual's choice of where to live. Such a finding is more representative of Baudrillard's theory of consumption as communication. However, when Gram-Hanssen and Bech-Danielsen explored home decoration, they found that within these neighbourhoods, décor varied widely. That is, while many residents had used the same reasoning for choosing where to live, home decoration was clearly an individualized practice. The authors found that home decoration was a gendered practice, with women being more engaged in the construction of the household identity through interior design. However, it should be noted that the study is based on interviews with only 13 participants. A later mixed methods study explored the importance of the home as an aspect of one's identity in a survey (N=560) in a Norwegian city (Hauge & Kolstad 2007). The authors found that although 40% of the sample was aware that their home communicated some part of their identity, only 19% thought this was important. The authors found that the communicative aspect of identity was most important to wealthier respondents and young to middle-aged respondents.

An individual approach allows us to better understand consumer choices and trends, particularly through the mechanisms of conspicuous consumption, identity-construction, and instant gratification. Research in this area can examine ways in which an individual's intentions can be momentarily abandoned, contributing to the considerable research on the gap between action and intention (Courtenay-Hall & Rogers 2002; Kollmuss & Agyeman 2002; Kennedy et al. 2009). Most empirical research into the gap has found that concern for the environment is common but this concern does not always translate into behaviour. In Kennedy et al.'s (2009) study of the gap in Canada, results showed that nearly three-quarters of respondents were aware of a gap between

their intentions and actions and identified time as the most significant constraint. Indeed, the most convenient options are often not the most environmentally responsible choices.

The individual approach highlights how individual consumption is heavily embedded in meaningful relationships, creativity, identity, and self-expression. In the current neo-liberal environment, few policies may encourage specific reductions to consumer spending, or critique the role of large structures in promoting consumerism. The social practices model on the other hand, allows us to observe and understand the role of human agency in bringing about gradual change, and the role of social structures in mediating individual action. The social practices model also offers the opportunity to explore policy options to encourage sustainable consumption behaviours in specific cultural and place-specific provision system contexts, and thus I turn to its features next.

The social practices approach

A social practices approach seeks to incorporate dimensions of both structural and individual identity theories in order to understand daily actions and long-term social change (Jackson 2004). As Alan Warde (2005: 131) writes,

> Distinctive features of [social practice theory] include its understanding of the way wants emanate from practices, of the processes whereby practices emerge, develop and change, of the consequences of extensive personal involvements in many practices, and of the manner of recruitment to practices.

Social practice theories are diverse in the emphasis that they place on the role of individuals and social structures in shaping social practices. Some social practice models highlight the importance of physical structures such as urban design and infrastructure while others focus on social structures such as norms and rules. Social practice models, as different from the structural and individual approaches, acknowledge the interplay between structures and individuals in reciprocities that present recursive relationships between human action and changeable, but resistant social structures.

Spaargaren's ecological modernization theory is based on a discursive relationship between structure and agency as developed in Anthony Giddens'

structuration theory and Pierre Bourdieu's theory of taste. Spaargaren's individual is autonomous and rational and EM theory emphasizes the importance of physical structures in shaping social practices. Bourdieu on the other hand considers individuals less autonomous and beholden to, yet always negotiating with, social norms.

Ecological modernization theory

Ecological modernization (EM) theory represents another sociological contribution that accounts for the environment in its theoretical positioning. EM theory addresses the ways in which the habits of individuals both influence and are influenced by physical and social structure. Theorists operating from this perspective assert that structure is activity-dependent; we create society at the same time we are created by it (Giddens 1984). A person's routines are part of a pattern of behaviours reinforced by historical patterns and social context.[11] From the standpoint of EM theory, the emphasis is not on the individual *per se*, but on the collective patterns of behaviour of groups of actors. Essentially, to change social structures, we must examine social practices and the agents who practice them, and design intermediary systems of provision to encourage less wasteful consumption patterns.

An EM perspective can allow social scientists to examine how designated groups of actors can reduce their overall consumption of food, clothing, shelter, travel, sport and leisure in the context of specific systems of provision and how the demands of citizens can shape systems of provision. To address consumption from this perspective, one asks how lifestyle and related reinforcements within one's reference group could reduce consumption. For example, Spaargaren refers to the ability of groups to develop "environmental heuristics", or "rules of thumb" to live in a more sustainable way within the routines people live in (2003: 690). Heuristics work to stimulate individuals' consciousness with phrases that may prompt a change in behaviour: for example, "buy local" (foods that are in season for your region). From this perspective, it is important to

[11] Although the work of Anthony Giddens underlies much social practice theory, including EM, we will not attempt to summarize his 'structuration theory' here. Readers who wish to learn more about Giddens are referred to Giddens (1984).

understand how these environmental heuristics become commonplace social practices for people who share a lifestyle and identity.

Ecological modernization theory has been criticized for downplaying the role of the political economy in organizing social practices, for a rudimentary consideration of consumerism, and for the emphasis on technological fixes to barriers to sustainability (Carolan 2004). Like many theoretical perspectives typical of the practice turn in environmental sociology, EM theory seems to reduce much of the interaction between agents and structure to the involvement of citizens in product design (Carolan 2004) rather than explore how individual actions can be limited by the political economy or individualized preferences. That is, ecological modernisation theory could be made more effective by considering a wider range of structural influences (from urban design to social norms) and individual influences (from identity communication to feeling that one's actions are futile).

Researchers interested in EM theory might explore how government agencies could use richer information to design their systems of provision to better suit a localities' people, in terms of common group patterns of behaviours in various neighbourhoods, organizations, and virtual communities. For instance, Spaargaren (2005) assessed the efficacy of programs within Dutch non-governmental organizations (NGOs) and various government Ministries to encourage sustainable consumption. After evaluating the various projects, the author concludes that effective policies to facilitate sustainable consumption patterns should (1) identify target populations, (2) maintain active dialogue with that population, and (3) use environmental heuristics to effectively communicate environmentally sustainable solutions (Martens & Spaargaren 2005).

Bourdieu's theory of taste

While EM theory makes claims to capture the complexities of multiple social practices, Bourdieu's work on taste allows us to focus explicitly on the recursive relationship between individual actions and class structure. Central to his social practices

framework is Bourdieu's concept of *habitus*. These "forms of classification…function below the level of consciousness and language, beyond the reach of introspective scrutiny or control by the will" (1986: 466). Relevant to his discussion of taste, *habitus* constitutes a system of distinction that we recognize as 'good taste', which arises as a process through which social structures and the use of capital generate and reproduce social norms (Bourdieu 1986). Bourdieu specifies four types of 'capital': economic, social, cultural, and symbolic. The latter is distinctly tied to patterns of consumerism (Flint & Rowlands 2003).

Relevant to our discussion of the functioning of a social practices framework, Bourdieu describes how taste and class structure are reciprocally related: class position influences taste; taste reinforces class position. Or, as Bourdieu has written, "structured structures [are] predisposed to function as structuring structures" (1977: 72). In contrast to Veblen's work, Bourdieu demonstrated how all consumption reinforces one's position in a social hierarchy (Clarke et al. 2003) and how various subtle behaviours that connote class distinctions are paired with different forms of consumption (e.g. golf, wine tasting, sailing, attending a fashion show).

A significant difference between Bourdieu's work and that of Spaargaren is his recognition of the underlying system of domination that provides the foundation for our tastes. Thus the social practices approach elaborated by Bourdieu demonstrates the "opposition between the dominant and the dominated" (1986: 468) and traces its roots back to the division of labour and the labour of domination. *Habitus* can be understood as an "*open system of dispositions* that is constantly subjected to experiences, and therefore affected by them in a way that either reinforces or modifies its structures. It is durable but not eternal!" (Bourdieu and Wacquant 1992: 133). The notion of *habitus* allows us to scrutinize those actions that are considered 'routine', or 'habitual' and to consider the structuring potential of these unconscious acts. For example, gift giving is often obligatory and routinized, yet can be an expression of connection, celebration and acknowledgement of someone's contribution that contributes to altering a system of dispositions.

Flint and Rowlands (2003) applied Bourdieu's notion of *habitus* in their study of housing consumption. They describe how " The *habitus* of consumption, including the field of housing, is constructed through a constant working upon the cultural capital of individuals, as advertising encourages them to adapt to the branding and rebranding of products that constantly reconfigures the nature of symbolic capital." (2003: 224). Thus the *practice* of buying a house is influenced by social structures such as government policy and corporate objectives for profit and individuals' desire for status, identity, and recognition of their good taste. As a result of normalization of housing standards, Flint and Rowlands argue, "government acts of normalization and classification enshrine certain norms of social life, including forms of housing consumption, as legitimate whilst simultaneously undermining or obscuring others" (2003: 224). Acknowledging the reciprocal relationship between agency and structure inherent in a social practices approach, Flint and Rowlands conclude that in the field of housing in the UK, the *habitus* of consumption is structured by a disposition towards home ownership as the norm, and that such a disposition both reinforces, and is reinforced by, government rationales and discourse." (2003: 227-228).

Social practice theorists deviate from the structural approach in their belief that it is not only the structure of society that influences individuals, but also the actions of individuals that influence the structure of society. A social practices approach views consumerism in a larger picture than the individual approach, considering how structural norms and designs can shape individual behaviour. Social practice theories consider the potential for structural change in all individual action, rather than in the individual approach where the focus is on individual consequences, and resultant small group influences, of individual changes in thought and action. Social practice theorists recognize that individuals' daily choices can reinforce or challenge existing norms, and concurrently allows the flexibility to explore the grouping of actions that recreate the political economy. Thus theorists argue that the importance of actors' knowledge, consciousness, and deliberate efforts to change their practices is as important as the role of structural systems of provision and cultural rules on practices, and that through practices, agency and structure can change incrementally.

Conclusion

The division of sociological theories of consumerism into three approaches that I made here is somewhat arbitrary. In fact, others have characterized the theoretical advances made differently. Shove and Warde (2002) for instance divide existing theoretical positions into two lines: the work of Douglas, Baudrillard and Veblen as portraying the consumer as communicator, while the work of Bauman and Giddens sees the consumer as an identity-seeker. However, the purpose of this paper is not to build a theoretical argument based on the three categories of approaches; rather, our aim is to prompt a reconsideration of existing theories in light of a broader set of scholarship and to encourage more integrative research that builds on informed approaches to different loci of control, and driving forces, of consumerism. In our experiences at attending numerous interdisciplinary conferences on the environment, the categories I make here are often obscured in a rhetoric of shopping our way out of the environmental problem with increased "green consumerism" (Sandilands 1993). I hope to stimulate further scholarship that exposes the changes at various levels of society necessary to stem the tide of current consumer trends, and encourage scholarship on the nexus between human agency and resilient structures of society that must be questioned to be changed. I believe syntheses such as these can assist scholars from a wide variety of cultures and backgrounds to address disquieting consumerist trends, and thereby expose the role of power, social organization and daily choices that can challenge escalating rates of consumerism.

While the structural approach offers particularly important approaches to critique the political economy and power bases that support consumerism, and the individual approach encourages scholarship that unpacks the situational and social psychological mechanisms of consumerism, the social practices approach focuses on the lifestyles and routines (*habitus*) that subdue our awareness of our patterns of consumption and consumerism. Indeed, each of the theoretical perspectives included here was selected for its applicability to the study of consumerism. I argue, like Warde (2005) that social practice theories are the most immediately practical theoretical approach given

the recent international attention on sustainable consumption, as highlighted by the United Nations-led Marrakech Process, a response to the Johannesburg Plan of Implementation, which calls for a shift towards sustainable consumption and production. The introduction to the Process calls for a "rethinking" with regards to consumption practices: "Sustainable consumption and production requires a fundamental rethinking of the way societies produce, use, and dispose of products and services." (UNEP 2008). As such accords gain in number, strength, and relevance, sound sociological research will be needed to facilitate a better understanding of how some groups are able to make environmentally significant changes to their daily routines, across various structural conditions.

Although I advocate the use of social practice theories to study consumerism, a firm understanding of both the structural and individual approaches is a crucial component of any research design in order to avoid reductionism and over-simplification in a social practices approach. A social practices approach requires that researchers incorporate a broad understanding of the structural level forces that challenge or maintain unsustainable consumption practices and the individual motivations that either drive us to consume or cause us to reflect and scale back on our material consumption. The difficulty in teasing apart the structural approaches from the social practices, and the individual approaches from the social practices suggests that many theories of consumerism start from the ontological view that human actions are not the work of sovereign agents, but nor are they the result of puppet-masters tugging the strings of mindless consumers. Rather, the construction of patterns and trends are the result of a process in which both structure and agency feature. While no single theory or theoretical framework could capture a topic so broad and comprehensive as the drivers of escalating consumerism, a well-developed theory from the social practices approach has the greatest potential to influence significant policy change, capturing the strengths of both the individual and structural approaches. Future research should address the interdependencies among structural, social practices, and individual models that encourage consumerism, as well as models under which more sustainable patterns of consumerism are practiced.

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CHAPTER 3: RETHINKING ECOLOGICAL CITIZENSHIP: THE ROLE OF NEIGHBOURHOOD NETWORKS

Submitted to Environmental Politics[12]

Introduction

Our consumption choices have profound effects on the environment. The environmental accounting conducted by the United Nations Environment Program (2002) highlights ongoing concerns with biodiversity loss, freshwater contamination and shortages, over-harvesting in fisheries, urban air and noise pollution, and extreme weather events. The impacts of these problems are intensified by climate change (IPCC 1997) and ultimately rooted in consumption behaviour (Boyd 2003). The *Millennium Ecosystem Assessment* (MEA 2005) documents environmental change over time, showing that human activity (including consumption) has altered ecosystem services more rapidly and extensively in the past 50 years than during any other period in history. In fact, 60% of ecosystem services studied are so degraded that they now limit human ability to harvest food, water, timber, fiber, and fuel. Some of these ecosystem services include, "fisheries, water supply, waste treatment and detoxification, water purification, natural hazard protection, regulation of air quality, regulation of regional and local climate, regulation of erosion, spiritual fulfillment, and aesthetic enjoyment." (MEA 2005: 6)

Consumption practices are a unique confluence of environmental, socio-cultural, and economic forces. Human societies depend on the environment for the materials needed to produce goods and services and to assimilate the waste from our production and consumption processes. Socially and culturally, consumption is a "rich, rewarding, and deeply human activity" (Heyman 2005: 116); it constitutes an important part of our identity construction (Douglas & Isherwood 1979; Miller 1998), and it operates largely at the level of daily practices (Seyfang 2008). From an economic perspective, many of the structural influences encouraging consumption are premised on the tenet that

[12] The version submitted differs in several respects from what is printed here. The interested reader is encouraged to contact the author for the submitted version (huddartk@ualberta.ca).

consumption creates economic growth and that economic growth is good for society (Daly 1998). Sustainable consumption may be an unlikely starting point for environmental politics, given its individualist orientation. Yet at the neighbourhood level, daily household practices constitute a shared language: a strong foundation for any inchoate political action.

The relationship between politics and consumption has been the topic of heated intellectual and policy debate. Those arguing for weak sustainability feel that our consumption choices can constitute an effective politics in and of themselves (Dobson 2003; Spaargaren 2003). Others advocate strong sustainability and are highly critical of the notion of locating citizenship in our actions as consumers (Gould et al. 2004). While Dobson (2003: 3) writes, "the 'citizen as consumer' is a very active individual, comparing prices, demanding satisfaction from public services, and chasing up failures of service delivery when they occur", Akenji and Bengtsson (2010: 43) assert that, "the consumer might be at the centre of the consumption process, but for many crucial decisions in the value chain he or she is not the most influential actor." In their examination of the packaging value chain, Akenji and Bengtsson (2010) argue that the brand owner has the most influence on whether packaging is reduced. Strong sustainability is concerned with altering consumption levels; weak sustainability emphasizes the importance of consumption patterns. Both perspectives tend to overlook the role of the citizen-consumer in co-creating social norms and influencing others. By taking actions that run against mainstream culture, particularly when these actions are taken by a group of individuals in a conspicuous fashion, citizens are sometimes able to shape cultural norms and influence the social construction of daily life. Shifting norms at this scale and in this fashion is crucial to developing a fertile foundation for social and policy change (Leiserowitz & Fernandez 2008).[13]

There is little research that considers the role of ecological citizens as members of networks. Dobson, however, does state that, "Ecological citizens will avail themselves of

[13] This is a point I will continue to emphasize throughout: a network of like-minded households does not likely constitute a social movement. However, by forming strong ties around common values, such networks have the potential to contribute to or become a social movement.

the opportunities for collective action with which political systems present them" (2003: 103). In addition to other influences (e.g., socialization, television), informal neighbourhood networks may affect the actions of members, enhancing their eco-citizenship activities. There may be a meaningful role for social networks as a foundation for social movements. Indeed, existing research explores the effectiveness of social networks as a starting point for social movements (McAdam & Paulsen 1993). The degree of personal commitment to social movement activities and the sense of personal effectiveness in creating positive social change in that role are both enhanced through connectedness to a social network (Passy & Giugni 2001). Passy and Giugni (2001) explain that in social movement literature, there is a gap in understanding degree of commitment to movement-based activities, which they call 'differential participation'. They find that networks are of central importance:

> Not only do networks form the social environment on the basis of which individuals make their choices in the short run, they also affect in the long run the cognitive parameters that lead to choices such as participating in a social movement or abstaining from doing so. [Passy & Giugni 2001: 125]

The functions of networks that influence engagement in social movements are connecting prospective members to an issue, informing members about movement issues, and affecting the decision to remain engaged in the social movement (Passy & Giugni 2001).

When considering environmental behaviour, it is somewhat problematic to consider only the role of individuals acting alone. As Maniates (2002: 45) writes, "[W]hen responsibility for environmental problems is individualized, there is little room to ponder institutions, the nature and exercise of political power, or ways of collectively changing the distribution of power and influence in society." This article seeks to describe the processes by which networks of ecological citizens are able to encourage members and non-members to reduce their material consumption. The individuals interviewed describe relationships in their neighbourhood based on informal ties, common values and daily practices, and an informal social structure (McAdam & Paulsen 1993). Through participation in such networks, citizens' civic identity—and relatedly, their political norms and actions—are developed and modified (Passy & Giugni 2001). These networks are crucial not only for scaling up personal commitment to political

action (e.g., through a social movement) but also to reinforce the importance of behavioural commitment at the household level. When acting as part of a network, the household has the potential to serve as a site for altering social norms and rules (O'Shaughnessy & Kennedy *In Press*). Passy (2001) and Passy and Giugni (2001) addressed a gap in knowledge related to how social networks affect behaviour in social movements; in this chapter, I build on the limited understanding of how social networks influence household level sustainable daily practices, using Dobson's notion of ecological citizenship as a theoretical framework.

Ecological citizenship and social networks

Ecological citizenship is a normative, justice-based theory of sustainable consumption that complicates existing (largely libertarian) notions of citizenship as rights-based and as occurring only in the public sphere. Dobson (2004: 10) sees the separation of public and private as problematic for the study of sustainable consumption:

> For ecological citizenship, this separation of public and private cannot hold. For one thing, the household is the site of much ecological citizen activity, and for another, it may even be that the virtues of ecological citizenship are learned there.

Additionally, ecological citizenship calls on us to question rights and contract-based views of citizenship, which emphasize our negative duties to one another (such as the duty to do no harm), over and above such positive duties (such as the duty to help those in need). As Dobson (2004: 3) explains, "one of ecological citizenship's most crucial contributions to contemporary theorizing is its focus on the duties and obligations that attend citizenship." The discussion of duties aligns well with environmental discourse: most democratic states rest on the assumption that paying taxes and voting (our duties as citizens) affords us certain rights (access to education, protection of our property). Typically, our duties do not extend to people of other nations, to other species, or to future generations, yet our self-appointed right to consume and dispose of material resources impacts these entities (Soper 2004). A revitalized citizenship is essential if society is to remedy our parasitic relationship to the environment.

Despite the potent rhetoric, ecological citizenship, linked to the ecological footprint concept (at least in Dobson's conceptualization), has typically been used to explore the potential for *individuals* to reduce their consumption, paradoxically, through consuming (Latta 2007; Scerri 2009). [14] Johnston (2008: 259) offers an insightful critique: "By framing political-ecological solutions through a "conservation through consumption" strategy, the choices required of ecological citizenship are minimized for the citizen-consumer." For consumers to have a substantial impact on political and social change, acting as a collective is likely more effective than acting as autonomous actors. Passy and Giugni (2001) write of the "structural connection function" of social networks; that is, that social networks provide a fertile base upon which to form and maintain social movements, based on strong ties and relationships. I do not argue that the neighbourhood network described in this paper is a social movement (as it is without a central political purpose and demonstrated few instances of collective action with non-institutional tactics (Diani 1992)). But by cultivating weak and strong ties amongst committed households, the network represents an important micro-mobilization structure for local political and household change, and could, thus, contribute to the future formation of a more fully developed social movement (Granovetter 1983).

The importance of such networks is often overlooked in favour of the individual or political organization. Seyfang (2006: 391) argues that, "powerful coordinated global businesses must be tackled by coordinated, global networks of consumers rather than isolated individuals." Thus, the ecological citizen may use the private sphere to express their citizenship but this is largely ineffectual at inciting cultural shifts towards sustainability unless there are witnesses to this set of daily practices. In this way, discussions of the potential for sustainable networks to influence social shifts toward sustainable consumption represent a valuable bridge between the dualisms of individual and collective (Diani 1992; Rootes 1999), private and public (O'Shaughnessy & Kennedy *In Press*), and agency and structure (Seyfang 2006; Middlemiss 2009). The site of action moves from inside the walls of the home to include the neighbourhood. This is still

[14] Developed by Rees and Wackernagel (1998), the ecological footprint seeks to measure the area of arable land necessary to support the lifestyle choices of an individual, city, or nation.

within the ontological parameters of ecological citizenship, positing family and neighbourhood as ecological citizens, yet also explores the place of networks in influencing the activities of ecological citizens.

The aim of this paper is to explore the capacity of an informal network of ecological citizens to deepen the commitment of network members' ecological citizenship and to facilitate members' efforts to reduce consumption.

Methods

This research builds on 26 interviews conducted during June and November 2009 in Edmonton, Canada. I used an ethnographic approach in my interviews to elicit information on daily practices, values, and beliefs throughout the interview process (Spradley 1979). I interviewed families with at least one child living at home. This deliberate choice stems from data that suggest that two-parent households with children spend more of their income on consumer products than any other demographic group (Statistics Canada 2006: 12 December). I selected 13 families through word-of-mouth (from my supervisory committee and a personal contact in the La Leche League)[15] and snowball sampling and interviewed each family twice.[16] Recruited families were comfortable being described as "striving to reduce the environment impact of our household". The first interview was semi-structured; each participant was asked the same questions though the precise order of the questions varied by interview, according to the flow of conversation. One participant who was asked for an interview declined and I chose not to use the transcript of an interviewee who had little to say on the topic of reducing consumption. The second round of interviews was unstructured, building on three to five broad questions developed after I had analysed the data from the first round of interviews. Thus, each participant had a unique second interview, although most of the

[15] The La Leche League is a mother-to-mother support group that offers advice for parents on breastfeeding, discipline, and other parenting topics.
[16] For each family interviewed, I asked to speak with whoever felt most comfortable describing the daily routine and approach to reducing consumption. I spoke with 8 women, 2 men, and 3 couples.

second round of questions addressed the topics of community engagement, relationships with others who reduce consumption, and the extent to which the individual can effect social change. The interviews ranged in length from 35 to 95 minutes, and all participants agreed to the recording of the interview. All interviews were conducted at my home or that of the participant. Interviews were transcribed and sorted into themes with the use of a qualitative software package (NVivo 8).

Results and Discussion

The intent of the interviews conducted was not to locate a social network – in fact, its existence came as a surprise to me – and informants seldom used the term "network" to describe relationships with others in their communities. One clue to the informal network came as I asked informants to recommend households like theirs that I could interview. Of the seven families I interviewed in peripheral areas, three recommended families living in Millcreek (the central neighbourhood). Of those interviewed in Millcreek, there was little variation on the families recommended; the list included the same eight households. Not all of these households were located in Millcreek. One was located in Riverdale, a downtown neighbourhood roughly 3 kilometers away.

Thus the network I describe includes at least eight households located within biking distance of one another. All have children; five households home-school their children; and in no instance do both parents hold full-time jobs (all described an interest in "downshifting"). In the interviews, participants would mention a particularly inspiring choice of another network member, including building a home that has net-zero carbon emissions, cycling year-round, and travelling to Europe by boat (the least energy consumptive way to travel long distances). There are few formal meetings; instead, members' children often play together and one woman hosts an annual canning workshop and potluck supper while another couple described the bicycle repair workshop they hold each year. Below, I will describe the importance of involvement in the informal network,

the virtuous circle that ensues, and the process of building a network of ecological citizens.

Individuals, networks and ecological citizenship

Membership in a network confers a sense of belonging to individuals whose actions are often at odds with the status quo. The network located in this study is oriented around common values and practices; bringing like-minded individuals together provides benefits to quality of life and increases in environmental practices. As one informant says, "One of the benefits of trying to live consciously and minimize your footprint in this neighbourhood is you learn some really neat stuff and meet some amazing people who are doing some inspirational stuff." Several informants mentioned the inspirational nature of the network. They feel that their time spent amongst like-minded families affords them more energy and a deeper commitment to reducing consumption:

> Evelyn: We find it comforting to hang out with people that are like us. I can sometimes feel depressed when I'm in a very mixed group where not everyone sees what we see. I think there are times when we need to be with people who know exactly what we're talking about. So I think I would consider those networks to be a bit less work somehow and more spiritually and emotionally comforting. Not all the time but enough to kind of recharge you or soothe you a bit.

Evelyn's comment refers to the sense of belonging that comes from being with others who share a similar set of beliefs. At the individual level, such a benefit to quality of life is overlooked. In social movement theory, however, there is a belief that a network is an entity of shared values and practices. Diani (1992: 13) explains, "To be considered a social movement, an interacting collectivity requires a shared set of beliefs and a sense of belongingness." Diani (1992: 16) describes a social movement as "a network of informal interactions between a plurality of individuals, groups and/or organizations, engaged in political or cultural conflict, on the bases of a shared collective identity." I do not consider this network to constitute a social movement, yet I feel there are lessons to be drawn from social movement literature to understand the functioning of this neighbourhood network.

This informal network appears to lack a central purpose, beyond the needs of the

households involved. For instance, while some households worked together to bring in a family rate for public transit, this action did not engage other households or serve as a starting point for future activism. This undoubtedly affected other families not included in this social network but the primary intent of the actors was to reduce personal barriers to sustainable practices. Nonetheless, participant households felt better equipped to achieve successful outcomes by acting together. This confirms the results of Passy and Giugni (2001: 130) who found that networks "alter the perception of the effectiveness of engagement and of collective action". Informants stress that having a shared identity reinvigorates their desire to reduce consumption and adds to their sense of well-being. Tamara talks about the inspirational role a network plays;[17] she feels that if her husband did not have access to networks of support, he would lapse into isolation and frustration:

> You just have to be in a community.[18] I mean, maybe we're just totally hard wired that way and thankfully that's the case. Otherwise you just come to depression. Like my husband – he tends to be more of a pessimist I think. I think having children has been a really good thing for him because he has to get out and participate more fully in the community. He used to just isolate and withdraw and have less to do with people. But when you have kids, you go to a soccer field, or the park, you know.

At this point the reader may have noted that the majority of spokespeople for the households interviewed were women. I elaborate on female responses to environmental concern in another paper, located in Appendix E)[19] (O'Shaughnessy & Kennedy *In Press*). Jasmine reiterates the notion that a network is important to inspire one to reduce consumption: "A network of friends is crucial if you felt at any point in time you couldn't do it. You need those people who simply raise the bar and can inspire you and remind you what's right." Yet she and her husband have lived in a cabin in the woods for the past 20 years and miss the ease of reducing consumption made possible by a neighbourhood

[17] Tamara uses the term "community". I replace this with the term network, since what she alludes to is the value of interacting with like-minded others. Because "community" connotes interactions between individuals from all walks of life, I feel "social network" is more appropriate here. Members are similar in their interests, socio-economic status, location of residence, and belief system.

[18] Informants used the terms "network" and "community" interchangeably. However, I use the term network as community implies a wider range of actors. Here, all live in the same area, have children, have similar socio-economic status, and have similar values and beliefs.

[19] The overarching message of this paper is that women tend to use the household as a site for social change. The women interviewed preferred to stay removed from overt political activism (e.g., protesting) but saw their ability to set an example in their neighbourhood and demonstrate that a household can be managed sustainably as a subtle form of social change. We also comment in this paper on the dominant role that the women interviewed play in managing the household.

network: “We enjoyed living in our rural setting but now we want to live in a community. We’ve had 20 years in a cabin in the woods which we love but now we’re back to building the community again.” Likewise, other informants who do not live in a neighbourhood with access to a network of ecological citizens feel more pressure to consume. Jamie says:

> When we had free time and lived near our friends we were in social circles where everyone was very environmentally aware. But now we’re in more mainstream circles. Nobody else in this neighbourhood bikes or walks and certainly no one would wear thrift store clothes.

Aline has never had a network of support in her neighourhood and only recently became interested in reducing her consumption. She has come to the conclusion that to reduce more, she needs a community of support for inspiration and information:

> I think my next step is to find a community where I can be more comfortable with my values. I wonder if as you get more comfortable expressing your values, you’re more able to develop and create community. I don’t know. But what I’m pretty clear on is that it isn’t related to all this material stuff. I also find sometimes that people who don’t have excess stuff seem at some level to be more content and have more community. Like it’s almost the more stuff you get, the more disconnected you become from yourself and community. And it’s almost like the more we’ve increased how much stuff we have, we’ve decreased community and we seemed to have lost our own values too.

Further evidence of the potential of a network to influence ecological citizenship lies in the actions taken by the individuals in the neighbourhood network described in this paper. Together, members of the network lobbied (successfully) for a family rate for public transit passes, thereby reducing a barrier to this sustainable practice. There are examples of sustainable home and garden design in this network and members offer free tours (coordinated through the Community League[20] and a website hosted by one of the network affiliates) to anyone interested in learning more about green buildings. As Treasurer for his Community League, another member ensures that there is investment in the public commons (this year building a water park at the local community centre). One family living without a car volunteered to make the ice at the local arena so that the neighbourhood children would not have to be shuttled across the city to attend hockey games; another car-less family offers free bicycle repair workshops to encourage others

[20] Community leagues are a neighbourhood level governance structure operated on a volunteer basis. They are funded through support from the municipal government and through membership dues. Membership confers access to recreation facilities and neighbourhood events.

to leave their vehicles at home. Collectively, these acts serve to lessen barriers to sustainable living for others in the neighbourhood, regardless of whether or not they play a role in the network. The excerpt from Christopher Rootes (2007: 739) below addresses the shortcomings and strengths of local environmental activities:

> Acting locally will not usually be enough to secure redress of environmental grievances, but, for most people, local campaigns offer the only accessible entry to the political struggle for ecological sustainability. For that reason, but certainly not for that reason alone, they are most unlikely to fade away.

Dobson (2003) considers individual acts such as recycling and buying environmentally-friendly goods to constitute acts of citizenship. Yet he acknowledges that an individual approach functions most effectively in the absence of barriers to participation. He writes that the focus of ecological citizenship is on individuals, "but on the understanding that these individuals will be operating in the interstices of social life." Dobson (2003: 103) argues that overcoming barriers to participation should constitute a formative part of ecological citizenship and that *groups* of individuals are more effective in this capacity than are autonomous agents.

Seyfang (2006) speculated that ecological citizens who seek out formal networks of support engage in acts of sustainable consumption. After testing this hypothesis in a case study on local food, she revised her original conceptualization: once ecological citizens became involved with a network they were able to reduce their ecological footprint by using the infrastructure provided by the network. However, even more significant was the finding that through education and outreach programs, individuals' sense of ecological citizenship developed further, leading them to take on ever more sustainable practices. For example, Seyfang (2006: 393) found that

> [L]ocal organic food networks have [an impact] on promoting ecological citizenship and developing informed, educated communities around food—through education, outreach, literature, farm visits, web sites, etc.—and so both nurturing the ethics of ecological citizenship and then providing a means for their expression.

Whereas Seyfang studied a formal organization, my research focused on informal, community-based networks, while nonetheless revealing a similar pattern of behaviour. Moreover, these networks were shown to have acted to reduce barriers to sustainable practices for the neighbourhood at large. The results of my research show that an

informal network, as described by informants, has the potential to improve local sustainability and reinforce the beliefs and practices of households committed to reducing consumption.

Ecological citizenship and the virtuous circle

The possibility of meeting others in the neighbourhood under examination who were also trying to reduce their consumption contributed to the formation of a network of like-minded individuals. By providing information, resources, inspiration, and even competition, the network supports deeper commitment to the practices of ecological citizenship and takes on a pro-active dimension that might be more difficult for individuals to adopt (e.g., lobbying the municipal government for a family bus pass rate). In addition, as described above, the network takes on projects to reduce barriers to sustainability for others. Essentially, a virtuous circle emerges: individuals interested in reducing their consumption are made aware of others in their neighbourhood doing the same (Figure 3-1).

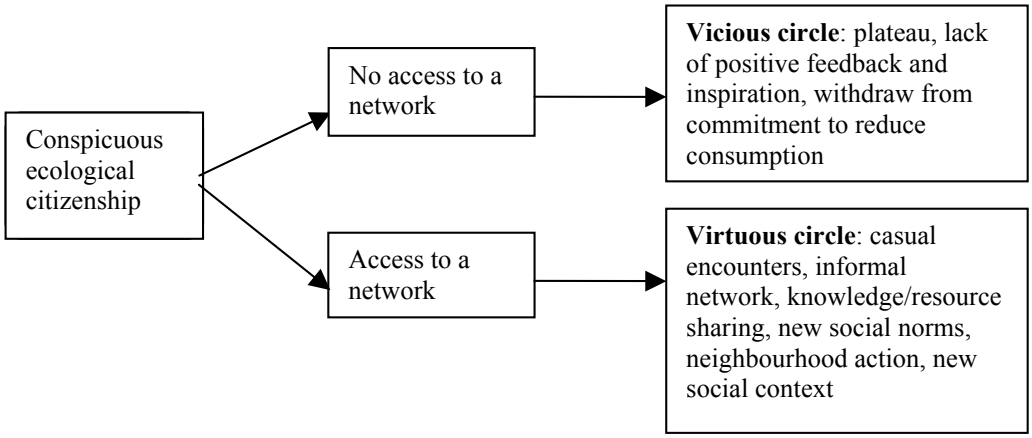

Figure 3-1. Descriptive model of ecological citizenship and social context

By sharing knowledge and resources and by shifting norms away from highly consumptive social practices, the members of the network under study are able to further reduce their ecological footprint and lessen some of the structural barriers to reducing consumption that exist in their neighbourhood. John's comment provides a good example of the haphazard way the network coalesced and the importance of conspicuous acts of

ecological citizenship: “Because we walk everywhere, we’re quite visible and people know us. We’re that family who rides around on our bikes or walks around. Because of that we’ve met quite a few other families who don’t use a car either.” In the virtuous circle (Figure 1-1), personal and neighbourhood ability to reduce consumption is affected positively by the presence of an informal social network or negatively by its absence.

Building an informal network

The processes by which the network supports efforts to reduce include sharing resources and information. For example, Tamara’s family relies on others for a car so that her family can live without a vehicle: “We have relationship with neighbours who often aren’t using their vehicles and who are happy to lend us theirs. Usually I’ll bake for them and I always put gas in [the car].” She stresses the importance of a relationship and implies that this is made easier by the fact that the borrower and lender live in proximity to one another. Celine and her husband, Lou, benefit from their neighbours’ knowledge of all things ecological: “Our neighbours down the street are just amazing people and they are just so aware of everything and we can always ask them their advice. We’ve learned a lot and do a lot more than we did before we knew them.” She suggests that their relationship facilitates greater involvement in sustainable practices for her and her husband. In another example of knowledge-sharing, another couple learned from Lou and Celine that it is possible to travel to Europe by steamship and plan to do so in the future, to avoid air travel.

In addition to sharing resources and shaping social norms, there is a competitive dynamic that encourages network members to reduce. Recently, Veblen’s theory of conspicuous consumption was used to argue that engaging in “green” practices could be a status-seeking pursuit (Griskevicius et al. 2010). By bringing together ecological citizens who model sustainable living, this network establishes norms and values that are contrary to mainstream culture. For example, Kirsten describes her sense of guilt at owning a car when others in her network of support do not. She also alludes to how her ties to the

network affects her behaviour and describes a dynamic tension between competition and inspiration:

> I realize that the way I build relationships, the things I do in private, are actually public because I have a community and we're constantly modeling for each other and providing both positive and negative reinforcement. We are constantly influencing and influenced by the people around us. So as a result we have a very alternative, very progressive, very environmentally aware, very child centered group of families in the neighborhood. And they all don't own vehicles so here I am owning my own vehicle and I always feel bad about it.

Kirsten's comments suggest a sense of responsibility, motivated in part by her own values and in part by her allegiance to a network. This is a crucial feature of the virtuous circle formed when ecological citizens come together in a network. As Dobson (2004: 15, emphasis in original) writes: "the virtuous circle is made up of *activity*, understood as carrying out social *duties*, in the *public* arena, and this is contrasted with *passivity*, understood as the claiming of *rights and entitlements*, in the *private* arena." However, while Dobson locates agency in the individual, the informants for this study implied that it is the network that shapes social practices in their neighbourhood. Dobson calls for ecological citizens to "attend to the conditions under which, and the mechanisms through which, [ecological citizenship] might be promoted." (2004: 22) yet places this responsibility on the individual.

If this network existed in a place in which everyone shared the same consumptive practices and beliefs about the environment there would be little influence on broader social norms or context. The fact that the network of individuals described in this paper is embedded in a neighbourhood with mainstream consumers strengthens their ability to effect cultural change. This is due to the importance of meeting informally and frequently – something that is achieved more readily in a neighbourhood with public common spaces (e.g., parks, schools, streets that are enjoyable to stroll) as well as retail spaces (e.g., cafés and grocers)[21]. Informants do not display a naïve localism, but a globally aware and informed approach. Evelyn explains the benefits of existing in a network and the ability of the network to inspire change:

[21] I do not seek to assert that this is a necessary precursor of a social network. However, the feeling of isolation expressed by informants living in peripheral residential neighbourhoods supports the notion that these networks are facilitated by happenstance meetings within one's neighbourhood.

> We are able to reduce our consumption a lot more because we have people in our lives with similar values. We have also had an influence on other people in our neighbourhood who maybe didn't do as much. I don't like to toot our horn but sometimes building those relationships allows people to see another way of living that they might not have seen so much of. They might have thought, "this is the norm", but the norm isn't always the happiest way to live.

By challenging mainstream norms, Evelyn and others are effectively politicizing household practices. By acting together in a local context they begin to make the private, public. Working as a network, these individuals are far more effective at influencing change than they were alone. As Latta (2007: 387, emphasis in original) writes, "I am more interested in the ways that politicizing existing socio-natural complexes…serves to cultivate spaces of citizenship that are *actively* (if not necessarily) linked to ecological concerns." The individuals in the network described here are strongly shaping their neighbourhood context (e.g., by volunteering with the Community League in various capacities, conspicuously reducing consumption, lobbying the city government for family bus passes) not solely due to their commitment to the environment but also due to their sense of membership in, and responsibility to, a network. As citizens of their neighbourhood, they are committed to altering the social context in ways that they feel is of benefit to themselves and their neighbours; as citizens with concerns for the environment, their actions are oriented around reducing barriers to sustainable practices for themselves and others.

The network described here was facilitated by members living within walking or biking distance from one another. While there may well be households trying to reduce their consumption in other neighbourhoods, it seems that some neighbourhoods are more amenable than others at offering a platform for creating a network of like-minded households trying to reduce their consumption. Key elements of this platform include being visible to others, having few barriers to sustainable living, and having public nodes where residents can bump into one another. Celine articulates why she thinks her neighbourhood is so appealing to like-minded individuals:

> This area seems to attract people – it's not so much that everybody knows that there will be other people that want to have a sustainable lifestyle, you know more environmentally conscious and all that. It's just that somehow this place attracts them. I don't know if it's

> the proximity to downtown, or the park, but it ends up as a place with people who have similar interests.[22]

Indeed, access to work, recreation, and services greatly bolsters attempts to reduce consumption. Jamie talked about how living at some distance from shops and services meant that her family had to buy a second car, and that not having access to like-minded individuals has diluted her network of support:

> If there were no constraints we would get rid of the second car. But living here we fight distance and weather. Also it would be nice if our relationships weren't so spread out, in the city and in Canada too. That's just how social networks are now. People live all over the place and you meet at university and everybody gets jobs everywhere or goes back to wherever their family was and so you end up with…I don't know, less community.

Few individuals have the ability to shape national legislation and most individuals have the power to decide which products to buy (though limits of availability or cost constrain many consumers). I argue that the neighbourhood is an overlooked site of environmental action and that informal neighbourhood networks represent a particularly potent communitarian response to environmental crises. In keeping with the theory of ecological citizenship, this action is taken at neighbourhood and household levels; this is not a social movement but appears to have the potential to strengthen existing social movements, as informants "are engaged in…a cultural conflict [and seek] to promote …social change at the…non-systemic level." (Diani 1992: 16) As individual households become part of a network in their neighbourhood, they also become engaged in and begin to lead neighbourhood campaigns. When a network is bolstered by a commitment to reduce consumption, these campaigns often help to lessen barriers to sustainability for others in the neighbourhood. Given the importance of encountering like-minded individuals for forming networks of ecological citizens, choosing where to live is a crucial decision from the perspective of sustainability.

The network described here is not utilitarian by design, though this need not be a feature of networks of ecological citizens. It is a project of shared values and practices

[22] This comment brings to light the issue of whether neighbourhoods shape household behaviour or household behaviour shapes neighbourhoods. I argue that it is both: the area where members of the network reside continues to change, as more families committed to sustainable consumption move into the area; at the same time, many of these families may be unaware of the existence of a social network or the potential to engage with others.

that adds to quality of life for those involved. Seyfang (2005: 303) argues for institutions which bring together ecological citizens: "Though small in scale at present, initiatives which allow people to practice ecological citizenship values are important carriers of pluralistic visions, and could potentially grow and thrive if surrounding social conditions and social institutions – the context – were favourable." The fact that this informal network adds to quality of life, strengthens members' commitments to reduce, and reduces barriers to sustainable consumption for others suggests that informal neighbourhood networks are a powerful means for expressions of ecological citizenship. Seyfang (2006) noted the reciprocal relationship between ecological citizenship and engagement in a formal network. Here I have demonstrated that the same relationship exists in an informal network, and further, that by coalescing into a neighbourhood network, these citizens have become more fully engaged in local politics, inspiring each other and others to reduce their consumption, and making sustainable living more tractable in their neighbourhood.

Conclusion

Ecological citizenship offers a normative theoretical framework for interpreting the broad-based, individual responses to environmental problems, yet it has been justly criticized for failing to consider how individuals might be part of collective social change (Scerri 2009). There exists a strong precedent for drawing citizens into the democratic process through their commitment to the environment. As Latta (2007: 378) states, "using the turn towards citizenship as a springboard for advancing the democratic impulse…has long been one of the hallmarks of environmentalism." And certainly the democratic process and citizenship in general could use some energy. Kingwell (2000: 15) writes: "Citizenship is a role now in danger of losing its privileged position in human life, through various forms of withdrawal from the political realm: into consumerist fetishism, into cultural separatism, into self-regarding isolation." Thus far, with few exceptions, ecological citizenship has overlooked how the actions of groups of individuals might differ from those of individuals acting alone. The results here stress that involvement in

an informal network strengthens members' commitment to ecological citizenship and incites more citizenly activity that has the potential to reduce barriers to sustainable living for others. Rootes (2007: 738) argues that,

> Even if the stretch between local environmental campaigns and a global social movement capable of shaking the citadels of global capitalism appears an improbably long one, local campaign may nonetheless … provide bases for communal action that might positively address and attempt to remedy environmental ills.

Choosing where to live is an environmentally significant decision; however, once situated in a neighbourhood, there is much one can do to alter local context. As Uzzell and Rathzel (2009: 2) note, our daily practices are as much a function of context as a product of individual rationality:

> Behaviour is not only the product of rational, deliberative and individual evaluation. It is also based on habit and cultural tradition, emotional impulses, the influence of family and friends and social norms as well as wider trends. Moreover, while values and attitudes are clearly important in influencing behaviour, values and attitudes are not formed in a social and cultural vacuum. They are embedded, nurtured and emerge from a social context, such as class, gender, ethnicity, and environmental settings, resulting in specific everyday cultures.

Social context is not fixed or impervious to the actions of individuals. It is transmutable and can serve to constrain or enable sustainable household practices. Kingwell argues that human communities "are discursive achievements, processes of seeking and finding conversational partners and forging with them, painfully and by increments, the shared public institutions that will work for us." (2000: 22) Those interviewed in the central neighbourhood were drawn to the area for similar reasons: access to a natural area, a "community feel", proximity to a farmers' market, to downtown and the university, schools, shops and services within walking distance, and the potential to live without owning a vehicle. However, they also sought to develop the shared public institutions around them as members of an informal network or through their capacity as members of the Community League. While they did engage in bettering their neighbourhood, they had also chosen an area that is already highly amenable to living sustainably (compared with other neighbourhoods in Edmonton). Neighbourhood choice is significant: "Local contexts do not merely dictate the possibilities of local alliances; they shape the very identities of local activists" (Rootes 2007: 728)

Choosing where to live will have significant ramifications on one's ability to reduce consumption on a day-to-day basis. However, an informal network of residents has the potential to alter local structural barriers to sustainable living (Chamberlayne 1995; Rootes 2007). When acting with others, living sustainably becomes more inspiring, more rewarding, and easier – partly through lessening barriers to sustainable daily practices, and partly through having ready access to supportive friends. The network described here has built on its internal strength, as demonstrated by members' participation in actions to create a more resilient neighbourhood. I have identified a number of mechanisms by which engaging in a network enhances individuals' ability to reduce, including competition, knowledge transfer, resource sharing, and inspiration. By shifting norms and locating and addressing barriers to sustainable consumption at the local level, citizens are further able to encourage those in their neighbourhood who are not tied to the network to reduce their consumption as well. In this way, the network could provide support to social movements that could politicize those structural barriers to sustainable living that affect others in the population (Passy 2001). In fact, two of the households are involved in a local, grassroots movement that has successfully lobbied for improved local food policy in Edmonton.

Creating new social norms can change local context as well. Mainstream (or weak sustainability) theoretical approaches to sustainable consumption often fail to account for the role of cultural change in addressing environmental crises. Seyfang (2005) concludes that the mainstream approach to sustainable consumption is insufficient in meeting environmental objectives. She reasons that, "to build a social context consistent with an enabled ecological citizenry, governments must …[alter social] context through radical changes to lifestyles, infrastructure and social and economic governance institutions, in order to redirect development goals and reduce absolute consumption levels." (303) Social movements founded on networks such as the one described here might well be highly effective in altering social norms towards sustainable living. Uzzell and Rathzel (2009: 3) define a mainstream approach, drawing attention to those policy instruments that seek to coerce behaviour in the short term, on a practice-by-practice basis:

> While coercive measures may be successful in bringing about specific behaviour changes, they do not change people's sense of alienation and powerlessness and thus tend to reinforce people's conviction that they are not responsible and cannot do anything about their living conditions and much less about broader environmental hazards. The changes achieved through coercive measures may not necessarily generalise to other behaviours and so the gain is short-lived and limited in scope. The more individuals are deprived of control over their living conditions, the more they are likely to look for satisfaction through consumerism and through identity construction via carbon generating consumption of goods (e.g., cars) and services (e.g., overseas holidays).

Constructing a culture of sustainability will no doubt rely on the commitment of ecological citizens, yet the ability of these individuals to effect broader change and influence social norms may very well be contingent upon their ability to coalesce as informal or formal social networks, effecting neighbourhood-level change. While the current study examined a neighbourhood-based informal network, similar groups could certainly exist in the workplace, in schools, in churches, and in other public and private institutions. However, by virtue of their physical proximity, neighbourhood networks have the advantage of existing informally, as members run into one another in common spaces and can visit one another with little effort. Furthermore, due to their connection to and stake in where they live, members of an informal neighbourhood network are likely to remain more committed than office workers.

Future research into the presence or absence of networks of sustainability in these and other contexts would likely bring further depth to the concept of ecological citizenship. The citizens interviewed for this research seem to be influenced by their membership in an informal network to deepen their commitment to sustainability. Future research might also explore other housing arrangements (e.g., singles, couples without children) and conduct deeper analysis on the connection between sustainable daily practices and gender. I hope to have demonstrated that informal networks should be studied for their impact on ecological citizenship and potential to contribute to social movements. This development would not be at odds with ecological citizenship in its predominant conceptualization but further add to and refine the theory, in addition to the work of Soper (2004), Hayward (2006a, 2006b), and Latta (2007). If theorists of ecological citizenship can shift their focus away from the individual as autonomous agent, there exists the possibility of examining ways that groups of individuals can lead a

shift to sustainability. Shifting emphasis from the individual to the acts of networks of individuals could teach us more about the nature of social interactions and the potential for acts of sustainability to reinvigorate the spirit of public participation and local engagement.

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CHAPTER 4: SUSTAINABLE CONSUMPTION AND THE IMPORTANCE OF NEIGHBOURHOOD: A CENTRAL-SUBURBAN COMPARISON

Targeted to City & Community

Introduction

Academics and policy makers have long argued that, "the urgency of current environmental trends clearly necessitates a new approach to living on the planet" (Beatley & Manning 1997: 5). Yet despite pockets of exceptions and pilot projects dedicated to the pursuit of more sustainable living (e.g., Fosket & Mamo 2009; Seyfang 2008), wholesale changes in behaviour appear to be occurring slowly. Such changes need not require reversals of current practices or abnegation of the pleasures of modernity: recent evidence shows that quotidian household efforts (e.g., reducing temperature of water heater, line drying laundry, and carpooling) could reduce greenhouse gas emissions by 22% in the United States (Dietz et al. 2009). The household is the site of many and varied environmental practices; these practices exist at the interstices of individual values and experiences (Kennedy et al. 2009a; Poortinga et al. 2004), cultural norms and rules (Jackson 2005), urban design (Jacobs 1993; Turcotte 2008a), and other individual and structural variables. Sociological analyses of urban spaces have the potential to shed light on how the cultural and structural dimensions of neighborhood contexts influence daily environmental practices (May et al. 2005; Rudel 2009).

Current work in environmental sociology suggests that incorporating an understanding of social context in addition to individual characteristics is a highly useful theoretical framework for understanding sustainable consumption. Social context includes the built environment (structure), policy and legislation (structure), norms (culture), and knowledge (culture) (Spaargaren 2009; Spaargaren & Cohen 2009). Neighbourhood is one level of social context where culture and structure are at constant interplay; furthermore, the neighbourhood level is the site of household environmental practices (Uzzell & Rathzel 2009). Florida (2009) has written on the character of urban

places; others have written on sense of place more generally (Beckley 2003). The message from such lines of inquiry reiterates that through structural and cultural features, neighbourhoods shape the daily practices of residents – and are in turn shaped by residents and other actors (Flint & Rowlands 2003). Patrick le Gales (2005: 352, emphasis added) describes urban societies as:

> [S]tabilized by a set of organizations, linked to the state in varying degrees: for example, hospitals, schools, universities, ports and social and cultural centres. Social movements and associations, *sometimes even families,* are deployed in different organizations and help to shape – always partially and with only occasional stability – a degree of coherence and a certain local social and political order.

With respect to social context, suburban neighbourhoods and central neighbourhoods are unique (e.g., distance to the urban core, street design, use of natural features, home size and cost, prevalence of consumer culture) (Grant & Bohdenow 2008; Relph 1987). Rodriguez (1999) noted that residents of suburban areas spend less time at home and Relph (1987) observed that suburban residents typically spend fewer than six years in their community. These twin observations lend support to the idea that household daily practices and social interactions will differ depending on whether they are located in a central or suburban area. It therefore seems reasonable to expect that neighbourhoods in different locations would foster different daily environmental practices.

The neighbourhood is often a site for grassroots movements and collective action (Davis 1991). Davis (1991) argues that neighbourhoods have become seedbeds of collective action due to residents' stake in where they live, where their children grow, and the relationships that exist among neighbours. Chamberlayne (1995) observed that when residents know one another, they are more responsive to outside threats than in neighbourhoods with fewer social ties. Mileti (1999) noted a similar trend in disaster preparedness in California: when neighbours spoke to one another about what to do in the event of an earthquake, overall knowledge was higher than in the absence of such interactions. Perhaps in neighbourhoods that foster strong ties between residents, there is the potential for greater adoption of sustainable daily practices, through casual conversations, resource sharing, and positive reinforcement.

The objective of this study is to add to the literature on household environmental behaviours by showing how sustainable daily practices fit together, as structured by data on frequency of sustainable daily practices by residents of an urban and a suburban neighbourhood. Next, I profile resultant clusters of households according to demographic, attitudinal, and spatial traits. The final goal is to use those variables that most significantly contrast clusters to predict membership in the sustainable consumption cluster. The results are drawn from responses to a questionnaire administered in Edmonton, Alberta, Canada (n=491). In particular I address the following questions:

(1) Are sustainable behaviours clustered across cases?
(2) Do clusters differ by demographic and attitudinal measures?
(3) Does neighbourhood type (central versus suburban) affect how clusters are distributed, controlling on attitudinal and demographic measures?

Background

Social practices and sustainable consumption

Social practice theories have been used increasingly in the past decade to study sustainable consumption (Middlemiss 2009). The approach has the advantage of including the influence of structure and agency, while acknowledging the reciprocal relationship between the two (Reckwitz 2004). Additionally, the emphasis on daily practices as the point of inquiry into the social logic of a given area is complementary to sustainable consumption given the everyday nature of much environmental behaviour (Haluza-DeLay 2008). Shove (2003) has explored how structure and social norms co-create ever growing need for freezer space, and Middlemiss (2009) used a thorough analysis of community organizations to discuss the impact of membership in such an organization on the adoption of sustainable practices in the home. Warde (2005) demonstrated the way that lifestyle choices trickle down to affect consumption choices, showing how automotive enthusiasts accumulate various accoutrements associated with their hobby.

However, despite the interest in social practice theory, there is a lack of empirical

data showing how sustainable practices fit together. In fact, there is little emphasis on daily environmental behaviours within empirical contributions to social practice theory literature. At the same time, social psychological research has a long history of describing the relationship between socio-demographic, value-based, and attitudinal variables and pro-environmental behaviour (Barr 2007; Stern & Dietz 1994). These studies typically categorize behaviours through principal components analysis, locating variables that measure similar concepts. For example, a questionnaire on Canadian environmental behaviours yielded a collection of stewardship behaviours (e.g., planting trees on your property), private sphere behaviours (e.g., reducing electricity consumption), and public sphere behaviours (e.g., attending a protest) (Kennedy et al. 2009b). However, these behavioural scales are not classified according to respondents' frequency of practice. Contributions from these studies add to our understanding of who engages in sustainable activities (their demographic traits and attitudes), but fail to differentiate samples by adoption and frequency of sustainable practices. For theory and policy development, it is important to understand how sustainable daily practices are adopted by different households, and to profile households according to demographic, spatial, and attitudinal traits.

While little research exists that creates typologies of sustainable household behaviours, Niemi and Hubacek (2007) conducted a qualitative empirical study of consumer types, which addressed differences in consumers, according to their sustainable daily practices. The authors contrasted consumers according to their social relationships and consumption patterns and levels. This yielded four types of consumer. Mainstream consumers "show no interest in reducing their material consumption and they seldom if ever buy any green products" (Niemi & Hubacek 2007: 4). Material greens are those who buy green products but do not seek to reduce the overall amount they consume, or adopt more stringent practices to reduce their environmental impact. Low-level consumers "live relatively simple lifestyles but they seldom or hardly ever choose an environmentally friendly option when making their purchasing decisions" (*Ibid*). Finally, sustainable consumers aim to reduce their overall impact *and* buy environmentally friendly products. There is a need to recognize how consumers differ according to specific behavioural

practices. Such knowledge would contribute to theoretical work on social practice theory and on the influence of social context and individual characteristics in sustainable consumption practices.

Comparing central and suburban neighborhoods

Neighbourhoods are physical places; places where lives play out and residents shape and are shaped by the environment in which they have come to live. A place, as described by Gieryn (2000, quoted in Borer 2006: 175), "(1) is a unique geographic location, (2) has a material form (either natural or artificial or both), and (3) is invested with meaning and values (that are flexible and malleable between and within communities)." This definition brings to light the importance of both culture and structure in the character of a place and how it shapes the practices of its residents.

Neighbourhoods can be also contrasted by their environmental impact. Suburbs are associated with higher greenhouse gas emissions, and more smog and traffic congestion than central neighbourhoods (Grant & Bohdenow 2008). In their construction, they contribute to urban sprawl and its ensuing loss of topsoil and arable land, destruction of wetlands, and deforestation (Beatley & Manning 1997). The following comment from Beatley and Manning (1997: 6) articulates the sense of frustration with suburban developments: "Contemporary land use patterns do not acknowledge the fundamental finiteness of land, air, water, and biological diversity. Nowhere is this tendency more conspicuous than in the sprawling growth of suburban areas…where low-density development is literally eating up natural landscapes."

<u>Urban vs. suburban structural differences:</u>

The modern city proffers a wide variety of living arrangements to those who can afford to choose where to live: high-density urban core, low-density suburbia, medium-density urban core, et cetera (Turcotte 2008a). Each of these places entails distinct barriers and opportunities for sustainable living, a line of inquiry that has been largely

neglected in urban sociology. To understand current structural features of suburban and central neighbourhoods, a glance at the past is helpful to grasp how suburban living emerged from the city context.

The history of the "crabgrass frontier" (Jackson 1987) is a relatively recent one in the US and elsewhere: investments and technological improvements in rail and automobiles facilitated growth in neighbourhoods on the periphery of a city's central core in the early twentieth century (Baldassare 1992). At this time suburbs became increasingly attractive, particularly to white, middle and upper class families. As Baldassare (1992: 477) notes, the presumed benefits "included urban decongestion, lower residential densities, greater separation from the city's business district and, importantly, home ownership." However, it was in the 1950s and 1960s that suburbs flourished, fuelled by mass automobile ownership and public investment in large highways. Suburbs continue to be a popular alternative to urban living to this day (Rudel 2009). Writing from a Canadian vantage point, Harris (2001: 445) writes, "The great majority of Americans who have written about U.S. cities…have hardly ever thought to use the Canadian experience as a point of reference." Canada-specific literature on the topic is sparse, but provides some clues as to the historical origins of suburbs and the challenges these developments pose to social and ecological wellbeing.

The sustained popularity of suburbs over the last seven decades must surely reflect cultural values in addition to the aims of powerful interests and land-owning elites. Certainly, the popularity of suburbs among many municipal governments reflects a value for economic growth (Szasz 2007). As Harris (2001: 449) explains, "Economic efficiency has been a leading priority in municipal governments in Canada, reflected in our urban structure and planning processes." He elaborates: "Over the course of the 20th century, land development has increasingly been taken over by vertically-integrated developers who are involved in all stages of the process from the land subdivision though design, construction, marketing, and even consumer financing." (Harris 2001: 457) Economic forces have invited other players to profit from the suburbs, including auto-oriented business activities, oil, automobile production, as well as road and housing construction

companies (Molotch et al. 2000). Homeowners often benefit as well: “When developers subdivide farmland and build single-family homes on it, they usually make large profits. Nearby homeowners often share in the bounty because the prices of their homes have traditionally increased when developers construct expensive homes on nearby tracts of land.” (Rudel 2009: 133)

Suburban neighbourhoods grew rapidly and rampantly in Canada during the first decade of the twenty-first century. In Edmonton, Alberta, where this study takes place, roughly 30% of the population resides in a suburban neighbourhood (Turcotte 2008a). This is comparable to other mid to large-sized cities across North America (Baxandall & Ewen 2000). The appeal of suburbs is easy to understand given cultural values: growing interest in owning a home that has not been lived in previously, that provides ample size in a low-density setting, and seems accessible to the city centre creates the perception that one can draw on the positive aspects of a city (e.g., shopping, entertainment and employment opportunities) without the negative features, such as crime and crowding. Stackhouse (2000) notes the importance of affordability: the search for a home in their price range brings even those who love the city to the suburb. While few suburbs resemble urban areas, built as they are at the periphery of urban centers, they provide access to the city. Interestingly, a recent study from the City of Edmonton’s Transportation Planning Branch (2010) found that while homes are more affordable farther from the city core, the savings made in home purchase are lost due to the necessity of owning and servicing two vehicles.

In contrast to urban areas, the structural features of suburbs have been widely critiqued due to evidence that they are highly reliant on the automobile, are socially insular, and have wide-ranging environmental impacts, described above (Beatley & Manning 1997; Relph 1987; Szasz 2007). In response to these and other criticisms of suburban developments, planners have proposed the concept of ‘new urbanism’ as a better template for suburban neighborhood design. New urbanism is premised on a “belief in the need to return to the design principles embodied in traditional American towns, the qualities and features that are emphasized include, among others, a return to

the traditional grid street pattern; mixed-use, pedestrian environments; and public spaces and civic architecture." (Beatley & Manning 1997: 20) New urbanism design has become increasingly popular in Canada, with most new suburban developments espousing such principles, at least as part of their advertising campaigns (Grant 2002).

In theory, new urbanism communities offer "a mix of housing types, high design standards, attractive open space systems, and a walkable environment" (Grant & Bohdanow 2008: 109). Yet myriad critiques exist which point to the watering down of new urbanism principles in light of pressures to cut costs and increase profits. For example, new urbanist projects are designed to include trees and greenery, yet frequently forest and grassland are destroyed to construct roads, homes, and ornamental tree-lined boulevards. Environmental considerations appear to be secondary to economic considerations; for example new urbanism strives to create communities less dependent on vehicles, yet "very often these developments, many of which are located in exurban locations, are not accessible via public transit." (Beatley & Manning 1997: 116). In Canada, new urbanism developments "have had less success in establishing viable commercial districts, increasing urban densities, providing affordable housing, or reducing reliance on automobiles." (Grant & Bohdanow 2008: 109) Elsewhere, Grant (2002, 2003) notes that while superficial elements of the new urbanism model are adopted in Canada (such as front porches), more holistic and involved principles (walkable neighborhoods to reach most basic services) are virtually never applied. The case of new urbanism demonstrates that homebuyers looking for a sense of community and a less vehicle-dependent lifestyle away from the city core are ultimately constrained from reducing their consumption by misleading advertisements from developers and the structural barriers present in poorly planned suburbs.

Structurally, the dominant contrasts between suburban and central neighbourhoods include distance from the city centre (Turcotte 2008a), zoning of retail space (with limited availability of independent retailers in suburban areas), road layout (grid versus modified cul-de-sac), green space, and house size. Older, more centrally located neighbourhoods tend to have access to public transit, shops and services, and

parks and natural features. Moreover, these older neighbourhoods are typically built on a grid pattern, facilitating walking to local points of interest, and have smaller homes than exist in new suburban developments. Living in the suburbs appears to pose a substantial structural barrier to living sustainably.

Urban vs. suburban cultural differences:

Rodriguez (1999) documented cultural contestation between urbanization and suburbanization in the San Francisco bay area, locating these differences as a form of "culture war". Regardless of whether urban and suburban neighbourhoods are in conflict, there do seem to be cultural differences between the two places. Many see suburbia as the landscape of consumer culture. For instance, de Graaf et al. (2001: 60) write, "what began as a quest for the good life in the suburbs degenerated into private consumption splurges that separated one neighbor from another, and one family member from another."

At a micro-level, suburbs seem to fit well with the values of many homebuyers as well. Some see suburbia as another version of the gated community. Szasz (2007) uses the term "inverted quarantine" to describe the tendency to look to the urban fringe for safety. The cultural values founding inverted quarantine are fear-based. Fear of filth, crime, and interaction with the "dangerous classes" continues to drive some to the peripheries of the metropolis, while others prefer to locate amidst the chaos of an urban area, indeed, relishing such an environment (Florida 2009). More positive pressures to suburbanize – often manipulated by developers (Szasz 2007) – are based on cultural values for "private life, family, home, and domesticity" (Szasz 2007: 66).

In contrast to the profile of suburban values, those values underlying an affinity for urban living could include the desire for new experiences, appreciation of diversity, and an interest in racial and class-based tolerance (Rodriguez 1999). There appear to be cultural nuances between the city and the suburb, contrasted primarily by the relationship to the other – whether to exclude oneself from the fray of activity or situate oneself in its midst. Of course, culture and structure are constantly shaping one another (Borer 2006;

Gans & Borer 2007). Yet social norms in suburban areas in particular become entrenched (Muzzio & Halper 2002) because they cater to such a narrow spectrum of social values.

The following article uses data derived from a questionnaire to explore environmental behaviours in central and suburban contexts.

Methodology

Study context

This paper is part of a larger research project seeking to identify ways of thinking and modes of practices associated with reducing material consumption. The overall study takes a mixed methods approach and began with qualitative interviews designed to elicit an understanding of the barriers and supports for reducing consumption, an idea of the types of behaviours practiced by those who strive to reduce their environmental impact, and to develop knowledge of what motivates those who drastically reduce their material consumption to do so. I learned about a number of social practices interview participants carried out, over time, and in some cases in cooperation with other nearby residents. I also observed that the perceived barriers to additional sustainable consumption practices differed between those participants living near to, and those living far from, the city core. The interview findings from the qualitative interviews (hereafter referred to as the qualitative phase of this study, described in detail in chapter 3) informed the survey questionnaire. I identified two neighbourhoods to be compared as distinct social contexts. This choice was made because the barriers described by participants tended to vary according to neighbourhood of residence. I developed the hypothesis that part of this difference was due to social context, particularly as a result of distance to the city core and cultural differences in values by neighbourhood.

Study area

As home to what was formerly the world's largest mall, Edmonton, Albertan politicians have long been strong proponents of economic growth as beneficial to residents. The primacy of growth in the city has produced one of North America's largest (by land area) and least densely populated cities. Nonetheless, Edmonton also boasts an active local food movement (Hergesheimer & Kennedy 2009), private developers have built Net Zero (carbon emissions) homes, and the city government recently made a large investment in light rail transit. In a city with a strong vehicle culture, the success of such investments will be interesting to monitor over time. Using data from 2005, a Statistics Canada report comparing major Canadian cities found that Edmonton residents were the most likely to have made all their trips on the reference day exclusively by car as either the driver or a passenger (75% and 77%, respectively) (Turcotte 2008b). As a Northern city, Edmonton's location is somewhat unique in North America, however, the ubiquity of city boosterism (Logan & Molotch 2007), presence of low-density suburbs (Baxandall & Ewen 2000), and persisting urban sprawl (Grant 2002) are common to many North American cities. The numerous responses to counter these trends are also occurring across the continent: local food movements are becoming more popular (Feenstra 1997; Hergeshemier & Kennedy 2009), as are sustainable housing and transportation projects (Williams et al. 2000).

We selected the two locations for this study based on prior knowledge of their characteristics and residents (garnered through an earlier qualitative phase of this research, and access to demographic information from Statistics Canada). The areas chosen have similar average incomes, similar lot sizes, and are populated predominantly by single-detached dwellings with few apartment buildings (see Table 4-1). Homes in Terwillegar Towne (the suburban area) are considerably newer and somewhat larger, on the average, than homes in Millcreek (the central neighbourhood).

Table 4-1. Demographic profile of Millcreek and Terwillegar Towne (Source: *City of Edmonton 2009 Municipal Census* and *Elections Canada)*

	Millcreek	Terwillegar Towne
Number of households	637	1349
Residents living in single-detached homes (%)	81.9	80.6
Residents who own their home (%)	86.3	93.0
Average family size	3.03	3.27
Average household income ($)	$113,105	$135,468
Low-income households (%)	10.5%	6%
Median age of residents	35-44	25-34
Female residents (%)	49.5%	53.8%
Immigrants (%)	21%	20%
Residents with a university degree (%)	58%	55%

Millcreek

Millcreek is located within three kilometers (km) of the downtown area, the University of Alberta, and several other hubs of shops and services. It was established around the turn of the twentieth century and is thus one of the older neighbourhoods in the city. The community lies on the edge of Millcreek Ravine, a nine-km long, forested, riparian park, and is characterized as high density by Statistics Canada (Turcotte 2008a). Grocery stores, bakeries, restaurants, and a variety of other shops and services are within walking distance from any home in the neighbourhood, and the area is well serviced by public transit and bike trails. Figure 4-1 is an aerial photograph that shows that Millcreek is built on a grid system and has a high tree cover. The neighbourhood also has a visual presence of residents who espouse an environmentally sustainable lifestyle, with a Net Zero home, a number of home-schooling families, many households that do not own a vehicle, homes with front gardens growing native plants and vegetables, and an active Community League. As a participant from the qualitative phase of this study explains,

> [Millcreek is] like a neighborhood of excellence. If you found out tomorrow you couldn't drive your car anymore, many of us would just carry on doing our thing…For the most part, people who loan me their car have said they admire how we live and they also know that their car sits unused 80% of the time. That's the kind of bartering that builds community.

Figure 4-1. Millcreek aerial image (Source: Google Maps)

Terwillegar Towne

Built at the turn of the twenty-first century, Terwillegar Towne is roughly 15 km from the city centre. Built according to new urbanist principles, the neighbourhood is decidedly suburban, as measured by distance from the city core and central business districts (Turcotte 2008a). It is a low-density area, despite its purported new urbanism. A website created by the neighbourhood's developers caters to the family buyer with traditional values: "Edmonton's first neo-traditional community…is a uniquely people-oriented place. Friendly, safe streets, neighourhood parks and open spaces, and traditional architecture combine to create a neighborhood with a timeless appeal. At Terwillegar Towne 'the good old days' just got better." Explicitly touting new urbanist principles, the website[23] reads,

> The neighbourhood features quiet, tree-lined streets and paved paths and walkways perfect for evening strolls and neighbourly gatherings. These are just some of the carefully-planned features that ensure people come first. Enjoy the best elements of a warm, safe neighbourhood: leafy boulevards and narrower streets, big front porches that invite lingering, all anchored by spacious neighbourhood parks with professionally landscaped grounds.

Terwillegar Towne is prohibitively far from the city centre and offers no shops and services within walking distance other than a convenience store (although a new

[23] http://www.terwillegartowne-community.com/frame_main.html

recreation centre is in construction). Figure 4-2 depicts the serpentine street layout (which impedes walking to avoid driving), the lack of tree cover, and two manmade riparian areas. An anecdote from a participant of the qualitative phase, who has since chosen to move her family out of Terwillegar Towne, speaks to the culture of consumption in the neighborhood:

> I bike my daughter to school and it often feels really unsafe. There are Porsche Cayennes going 80 km an hour past me to get to school, with maybe one kid and a nanny getting out. Kindergarten kids have $150, brand-name winter boots. It totally blew my mind. I was thinking there would be a few high consumption families, you know wherever you go there's always going to be diversity in social economics, but it's the majority here.

Figure 4-2. Terwillegar Towne aerial image (Source: Google Maps)

Sampling and questionnaire development

The research team chose the Edmonton area of Millcreek as the representative central neighbourhood. Millcreek has 637 homes. I hoped to have a complete sample size of 200 from each neighbourhood and expected a 50% response rate, accounting for homes with which we were unable to make contact. As such, I chose to visit each home in the two areas rather than conduct random sampling. Four students were hired to assist in delivering and collecting questionnaires and worked with members of the research team to hand out questionnaires door-to-door. Questionnaires were only dropped off when a member of the household answered and agreed to participate (n=375), promising

to return the questionnaire by mail or to have it picked up by a member of the research team. I located an area in Terwillegar Towne, the suburban area, with roughly the same number of homes as Millcreek, and delivered questionnaires for 12 days (Monday through Saturday). In Terwillegar Towne, I received 237 complete questionnaires, 23 blank questionnaires, and 17 incomplete questionnaires. Thus the response rate for Terwillegar Towne is 66% (237/358). The research team was able to make contact with 375 homes so we targeted the same number of homes in Millcreek. In Millcreek I received 254 complete questionnaires, 10 blank questionnaires, and 18 incomplete questionnaires. Thus the response rate is 71% (254/357). The overall response rate is 69% (491/715) (Table 4-2).

Table 4-2. Response rates[24]

	Terwillegar Towne	*Millcreek*	*Total*
Delivered	375	375	750
Returned, n	237	254	491
Returned, %	66%	71%	69%
Returned incomplete	17	18	35
Not returned	98	93	191
Delivered and returned blank	23	10	33

The questionnaire is comprised of five sections. The first section asks about frequency of involvement in 37 behaviours.[25] The second section asks about the factors important in deciding where to live, as well as the extent to which one knows their neighbours. The third section asks a series of attitudinal questions related to the economy and to the factors used to guide purchasing decisions. The fourth section is on life satisfaction, while the final section asks for socio-demographic information.

[24] Surveys returned with errors were missing substantial amounts of information, most often demographic information. Surveys returned blank were considered "rejected" and surveys not returned were those that were not picked up by the research team or mailed in by the respondent.

[25] A full copy of the survey is located in Appendix D. Examples of these behaviours include using public transit, buying local food, reducing the temperature of your home, talking to others about environmental issues, and avoiding buying bottled water.

Statistical analyses

We used the *Statistical Package for the Social Sciences* (SPSS), version 18 to conduct all analyses. I began by conducting a correlation analysis of 37 standardized behaviour items (a descriptive analysis of all items is presented in Table 4-3). Items were standardized because three of the items were measured on a different scale as the others. The correlation showed that a number of items were highly correlated (.600 or higher, at $p<.000$). I removed the highly correlated items,[26] leaving only the item that was most strongly related to the deleted items (e.g., do you leave your vehicle at home was correlated with using public transit, walking, and biking to avoid driving. Because leaving one's vehicle at home was strongly related to the other items, this was kept and the others were deleted). This left a total of 17 items. Next, I removed the four items that had over 30 missing responses. Through this process the items measured on a metric other than 'Never-Rarely-Sometimes-Often-Always' were eliminated; thus from this point unstandardized items were used. The resulting 13 items were entered into the cluster analysis and solutions of 2, 3, 4, 5, 6, and 7 clusters were considered. The validity and reliability of the resulting solutions were assessed by splitting the file by neighbourhood to compare consistency of the final cluster centers and distances between clusters, and through face validity. I attempted to profile the clusters by demographic, spatial, and attitudinal traits using chi-square and analyses of variance (ANOVA). Finally, I use a logistic regression to look at the impact of neighbourhood in determining membership in the sustainable consumption cluster, controlling on attitudes and demographic variables.

[26] Highly correlated items are removed to improve the quality of the cluster result. Unlike a factor analysis, K-means clustering is compromised when items are strongly correlated – the resultant clusters are often so similar that the analysis fails to converge.

Cluster analysis

As a family of methods, cluster analysis of cases[27] refers to methods that seek to identify "cases with distinctive characteristics in heterogeneous samples and combine them into homogeneous groups. This approach provides a great deal of information about the types of cases and the distributions of variables in a sample." (Rapkin & Luke 1993: 247) While more widely-used analyses such as regression techniques focus on measures of central tendency, cluster analysis is well suited to descriptive research particularly when combined with analyses that allow for profiling of resultant clusters according to demographic and other measures. Rapkin and Luke (1993: 248) speak to the descriptive potential of clustering techniques when they write,

> Cluster techniques are used to create taxonomies, identify patterns of associations and distinguish subgroups in samples. Although cluster analysis cannot and should not supplant more traditional statistical approaches… [t]hese descriptive applications allow us to ask interesting new questions and think in novel ways about the settings and people we study.

K-means cluster analysis is a particularly effective tool for theoretically driven exploratory research, as it requires that the researcher identify the number of clusters to be formed at the outset of the analysis. Like more traditional techniques, correlations are used to derive clusters; however, in a cluster analysis correlations are seen to arise from the prevalence of different types of cases as based on participants' responses to survey items. For both theory construction and policy development, there is much value in identifying archetypes of individuals, and identifying similarities and differences in these archetypes to better understand cluster membership. This approach has much in common with methods conducted by market researchers to denote consumer profiles.

Results

The results are structured to address the research questions introduced earlier: (1) Are sustainable behaviours clustered across cases, (2) Do clusters differ by demographic and

[27] Variables can also be clustered, of which Principal Components Analysis is likely the best-known and most widely used example.

attitudinal measures? And (3), Does neighbourhood type (central versus suburban) affect how clusters are distributed, controlling on other relevant variables? Before addressing these questions, I present a basic descriptive contrast of all behavioural items across the two neighbourhoods (Table 4-3). Responses for Never and Rarely are combined, as are those for Often and Always. Items measured as yes / no or as a number are also included in this table.

Table 4-3. Descriptive analysis of complete behavioural items, by neighbourhood

Item	**Never / Rarely**		**Sometimes**		**Often / Always**	
	TT	*M*	*TT*	*M*	*TT*	*M*
Leave vehicle at home	54.3	16.7	34.8	38.5	9.9	44.8
Bike to avoid driving	72.5	9.5	41.6	35.7	15.9	54.8
Walk to avoid driving	68.7	44.2	22.3	24.7	9.0	31.1
Use transit to avoid driving	71.9	46.9	14.0	25.4	14.0	27.8
Pay more for something that lasts a long time	6.5	4.8	35.2	34.3	58.3	60.9
Buy used goods	46.1	31.9	40..6	37.8	13.3	30.3
Reuse goods	4.3	2.4	17.4	11.4	78.3	86.2
Compost	76.2	48.5	9.7	18.6	14.1	42.8
Reduce temperature of home to save energy	6.0	8.4	19.9	16.0	74.2	75.6
Turn off computer when not in use	18.4	15.4	23.1	22.0	58.6	62.6
Hang laundry to dry	35.7	36.9	30.9	24.2	33.5	38.9
Reduce temperature of water heater	52.8	49.6	16.7	14.9	30.4	35.5
Buy local food	23.2	10.9	52.8	42.7	22.3	46.3
Eat food you or friends / family grew	37.1	27.1	39.2	35.9	23.7	37.1
Cook from scratch	6.4	2.4	11.5	10.4	82.0	87.2
Avoid use of herbicides	5.9	5.0	20.8	7.5	73.3	87.5
Use a rain barrel	77.7	63.5	8.9	9.6	13.4	26.9
Volunteer for an advocacy group	72.8	60.1	19.6	22.7	7.6	17.2
Participate in community events	43.6	36.1	37.7	32.9	18.7	31.0
Use a community garden	90.4	93.1	3.9	0.8	5.6	6.2
Help neighbours without pay	25.8	23.9	38.1	38.6	36.0	37.5
Accept unpaid help from neighbours	37.3	37.4	38.1	37.5	24.5	25.1

Item	Never / Rarely		Sometimes		Often / Always	
	TT	*M*	*TT*	*M*	*TT*	*M*
Talk about environmental issues in your household	12.8	7.0	44.9	35.1	42.3	57.8
Talk to those outside your household about environmental issues	14.9	7.2	49.8	44.0	35.3	48.8
Behave in ways that shows others how to reduce consumption	16.8	15.5	47.4	38.6	35.8	45.9
Encourage others to reduce consumption	37.8	35.3	40.3	34.9	21.9	29.8
Avoid shopping for fun	23.3	20.3	41.1	29.8	35.3	50.0
Avoid disposing of something you could fix	53.6	71.2	41.4	24.9	5.0	4.0
Avoid disposable products	55.5	59.2	38.1	37.2	6.3	3.6
Avoid impulse buys	37.3	45.1	47.9	45.0	14.9	10.0
Avoid packaging	30.4	40.9	56.4	46.9	13.2	9.5
Avoid bottled water	46.4	68.4	32.1	17.6	21.6	14.0
	Average # of…		**Yes**		**No**	
	TT	*M*	*TT*	*M*	*TT*	*M*
Number of cars	1.97	1.52	-	-	-	-
Of those, how many are fuel-efficient	0.91	0.72	-	-	-	-
Number of flights in 2009	15.03	15.89	-	-	-	-
Number of standard sized cans of garbage disposed of each week	1.83	1.40	-	-	-	-
Does your household have a front-loading washer?	-	-	59.7	46.9	40.3	53.1

Notes: TT = Terwillegar Towne; M = Millcreek

1. Are sustainable behaviours clustered across cases?

To conduct the k-means cluster analysis, it was necessary to pre-select the number of clusters. I considered cluster solutions from two to seven, ultimately selecting a four-cluster solution because it yielded maximum between-cluster significance (as measured by ANOVA) across the three variables for the dataset in its entirety and split by

neighbourhood. Our choice of names for the three clusters draws on Niemi and Hubacek (2007). Although our results do not align perfectly with their qualitative descriptions, the similarities between those in our study who score lower on all measures (mainstream consumers) and those who score highly on all measures (sustainable consumers), as well as the resemblance between those who adopt weak sustainability practices (material greens) and strong sustainability practices (low-level consumers) are similar enough to warrant application of the titles used by Niemi and Hubacek. Table 4-4 provides additional descriptive information about the typical behaviours of members of the four clusters.

Table 4-4. Behavioural differences in consumer clusters

Mainstream consumers	**Material greens**
Mainstream consumers have low scores on all behavioural items, particularly: -Buying local food -Eating homegrown food -Talking about the environment with others -Actively encouraging others to reduce their consumption -Avoiding heavily packaged goods	*Material greens tend to shift consumption patterns without addressing consumption levels. They are less likely to:* -Buy used goods -Hang laundry to dry -Fix goods rather than dispose of them -Avoid disposable products -Avoid impulse buys -Avoid bottled water *They are more likely to:* -Pay more for durable goods
Low-level consumers	**Sustainable consumers**
Low-level consumers are not likely to shift consumption patterns to choose (expensive) environmentally friendly products but incorporate practices that reduce their level of consumption. Thus they are more likely to: -Fix goods rather than dispose of them -Avoid impulse buys -Avoid bottled water *They are less likely to:* -Pay more for durable goods	*Sustainable consumers score higher on all behavioural practices. Particularly for the following items:* -Leave vehicle at home to avoid driving -Buy used goods -Hang laundry to dry -Buy local food -Eat home grown food -Talk about the environment with others -Encourage others to reduce their consumption -Avoid heavily packaged goods

In Table 4-5, cluster 4 (mainstream consumers, n=79) displays a pattern of low scores across all items while cluster 1 (sustainable consumers, n=123) has high scores on the same measures. The two central clusters (material greens, n=145 and low-level consumers, n=86) can be distinguished by their respective emphasis on altering consumption patterns versus reducing consumption levels. Table 4-5 also shows the mean

scores and standard deviations for each behaviour item by cluster category, as well as which contrasts are significant (reported by cluster number rather than name).

Table 4-5. Behavioural profile of consumer clusters using ANOVA (n=433)

Cluster number	4		3		2		1			
Cluster name	*Mainstream consumer*	*SD*	*Material green*	*SD*	*Low-level consumer*	*SD*	*Sustainable consumer*	*SD*	*F Statistic*	*Significant contrasts*
n	*79*		*145*		*86*		*123*			
Variable										
Leave vehicle at home to avoid driving	2.20	.911	2.61	.974	2.99	.988	3.51	.862	37.043*	All
Pay more for something that lasts a long time	3.28	.783	3.83	.634	3.46	.598	3.84	.729	16.014*	4-2, 3-1
Buy used goods	2.44	1.010	2.43	.919	2.69	1.021	3.17	.856	16.313*	3-4-2, 1
Hang laundry to dry	1.58	.794	1.52	.608	3.59	.722	3.88	.845	287.075*	3-4, 2, 1
Buy local food	2.72	.816	3.13	.748	3.18	.790	3.57	.736	20.191*	4, 3-2,1
Eat food you or friends/ family grew	1.84	.823	2.91	.920	3.12	.999	3.56	.841	60.625*	4, 3-2, 1
Actively encourage others to reduce their consumption	2.01	.870	2.66	.923	2.72	.978	3.53	.926	45.821*	4, 3-2, 1
Fix goods rather than dispose of them	3.39	.791	3.46	.764	3.95	.667	4.20	.623	33.225*	4-3, 1-2
Avoid disposable products	3.61	.775	3.48	.698	3.53	.695	3.76	.790	5.818*	4-3, 1-2
Avoid impulse buys	2.99	.742	3.17	.758	3.57	.819	3.65	.757	17.095*	4-3, 1-2
Avoid packaging	3.01	.689	3.21	.655	3.34	.761	3.62	.719	13.716*	4, 3-2, 1
Avoid bottled water	2.92	1.059	3.23	1.087	4.00	1.052	4.28	.719	43.638*	4-3, 1-2

2. Do clusters differ by demographic and attitudinal measures?

The purpose of the next phase of the analysis is to create descriptive profiles of the clusters. In Table 4-6 I present a socio-demographic profile of the clusters introduced in Table 4-5; Table 4-7 presents an attitudinal profile. The analysis is not based on causal assumptions, that is, I am not suggesting that membership in the sustainable consumer cluster would lead an individual to have higher education. Instead I am profiling sustainable consumers to show that they tend to have more years of education than members of other clusters.

There are few demographic differences between clusters and only slight variability on attitudinal measures. Only education, age, and birthplace differed significantly by cluster, with sustainable consumers having slightly higher numbers of years of education (17.5) than low-level consumers (16.7), material greens (16.5), and mainstream consumers (16.1) (mean values reported in all cases). Mainstream consumers are typically younger (39.5 years) than low-level consumers (44.4 years) and material greens are more likely to have been born outside Canada than low-level consumers. Political affiliation, income, employment status, gender, and whether one owns or rents their home or lives with a spouse/partner do not differ significantly across the four clusters although mainstream consumers have higher incomes than other clusters (Table 4-6).

Table 4-6. Contrasting clusters by demographic variables using ANOVA and chi-square test (n=433)

	Mainstream consumer		Material green		Low-level consumer		Sustainable consumer		
Variable	*Mean score*	*SD*	*Mean score*	*SD*	*Mean score*	*SD*	*Mean score*	*SD*	*F statistic*
Years of education	16.1 [a]	1.883	16.5 [a,b]	1.975	16.7 [a,b]	1.774	17.5 [b]	1.594	3.165*
Income	$121,266	$51,175	$113,898	$54,192	$111,794	$58,770	$106,720	$55,121	1.164
Age (years)	39.5 [a]	12.026	42.2 [a,b]	11.567	44.4 [b]	13.964	42.9 [a,b]	12.112	2.338*
	Mainstream consumer		Material green		Low-level consumer		Sustainable consumer		
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*Chi-square*
Conservative voter[1]	21	*25.3*	32	*23.5*	12	*14.5*	11	*8.2*	15.514**
Employed full-time	45	*54.2*	67	*50.4*	36	*43.9*	54	*40.9*	4.626
Own home	74	*89.2*	122	*89.7*	71	*86.6*	107	*79.9*	6.461
Born in Canada	69	*83.1*	102	*75.0*	75	*90.4*	110	*82.1*	8.358**
No kids at home	43	*52.4*	61	*45.2*	44	*53.7*	65	*50.4*	9.020
Live with spouse	63	*75.9*	104	*77.6*	61	*74.4*	102	*76.7*	.310
Male	34	*41.0*	39	*28.7*	30	*36.1*	47	*35.1*	3.698
n	*79*		*145*		*86*		*123*		

Notes: ***=.000, **=<.010, *=<.050; values that do not share letters are significantly different by *t*-test of the least squares means following ANOVA ($p < 0.05$) with Tukey's post-hoc test

1: Conservative voter is a dummy variable recoded from the variable "Political orientation", which is measured by the question "Which Federal party best reflects your political views?" A large proportion of respondents selected "None" from the list of options. Conservative voters are considered to represent the right of the political spectrum in Canada.

Of 15 attitudinal measures used in the questionnaire (see Appendix D for full list), the behavioural clusters can be contrasted by varying responses to six items (Table 4-7). Four of these items only differed significantly between mainstream and sustainable consumers. Sustainable consumers were significantly more likely to agree than the other three cluster categories with the statement, "It is important that Canadians consume less", and disagree more strongly than mainstream consumers that a strong economy is more important than a healthy environment. Mainstream consumers are less likely to assign importance to durable and high quality goods.

Table 4-7. Contrasting clusters by attitudinal measures using ANOVA (n=433)

	Mainstream consumer		Material green		Low-level consumer		Sustainable consumer		
Variable	*Mean value*	*SD*	*Mean value*	*SD*	*Mean value*	*SD*	*Mean value*	*SD*	*F Statistic*
It is important that Canadians consume less	4.13 [a]	.585	4.26 [a]	.799	4.36 [a]	.810	4.69 [b]	.631	11.997***
Our current economic system does not allow for a healthy environment	2.51 [a]	.864	2.19 [a,b]	.975	2.19 [a,b]	.875	3.14 [b]	.879	7.826***
I am upset when I see things wasted	3.75 [a]	.776	4.13 [b,c]	.659	4.00 [a,b]	.946	4.34 [c]	.849	9.223***
It is important to buy durable products	3.11 [a]	.877	3.26 [a,b]	.836	3.55 [b]	.821	3.52 [b]	.805	5.815**
Quality is important to me in choosing what to buy	3.77 [a]	.788	3.96 [a,b]	.686	4.06 [b]	.737	4.07 [b]	.708	3.167*
I feel better when I reduce how much I consume	3.61 [a]	.759	3.93 [b]	.758	4.03 [b]	.677	4.30 [c]	.704	14.985***
n	*79*		*145*		*86*		*123*		

Notes: ***=.000, **=<.010, *=<.050; values that do not share letters are significantly different by *t*-test of the least squares means following ANOVA ($p < 0.05$) with Tukey's post-hoc test

3. Does neighborhood type (central versus suburban) affect how clusters are distributed?

Most strikingly, over 40% of survey participants from the central neighbourhood are classified as sustainable consumers, nearly double the percentage among Terwillegar Towne residents (21%). The most well represented subgroup in Terwillegar Towne is the material greens cluster. The percentage of mainstream consumers in Terwillegar Towne is over twice that of Millcreek, and in Millcreek, low-level consumers make up the second largest proportion of residents (Table 4-8). Because the clusters do not differ greatly by demographic and attitudinal measures, I was interested in better understanding households' motivations for choosing where to live. When comparing eight different reasons for choosing one's neighbourhood across clusters, I found significant differences for four reasons. Responses were measured from 1 to 5, with only the endpoints named (1 = not at all important and 5 = very important) (Table 4-9).

Table 4-8. Contrasting clusters by neighbourhood using Chi-square test

Variable	*Mainstream consumer*	*Material green*	*Low-level consumer*	*Sustainable consumer*	*Chi-square*
Neighbourhood					
Suburban	25.9%	40.1%	13.2%	20.8%	41.559***
Central	12.5%	22.8%	24.6%	40.2%	41.559***
n	79	145	86	123	

Notes: ***=.000, **=<.010, *=<.050

Sustainable consumers ascribed greater importance to living near public transit and less importance to having a large home compared to members of the other clusters, and more importance to living close to work than did mainstream consumers. Mainstream consumers are more likely to desire a large home. Mainstream consumers and material greens (most common in Terwillegar Towne) are less likely to have wanted to live near parks (Table 4-9). This contrast is descriptive, not causal. I cannot assert whether living near public transit, for example, leads one to consume more sustainably or whether someone interested in consuming sustainably is more apt to choose to live close to public transit. However, the data presented below do show that there are differences across clusters in the factors motivating their choice of where to live.

Table 4-9. Contrasting clusters by neighbourhood choice using ANOVA (n=433)

Variable	*Mainstream consumer*		*Material green*		*Low-level consumer*		*Sustainable consumer*		*F Statistic*
In choosing where to live the following was (1= not at all important; 5= Very important)									
	Mean value	*SD*	*Mean value*	*SD*	*Mean value*	*SD*	*Mean value*	*SD*	
Close to work	3.18 [a]	1.118	3.24 [a,b]	1.159	3.34 [a.b]	1.240	3.66 [b]	1.288	3.632*
Close to parks	3.60 [a]	1.161	3.63 [a]	.950	4.06 [b]	.878	4.31 [b]	.907	14.481***
Close to transit	2.24 [a]	1.107	2.71 [b]	1.278	2.77 [b]	1.313	3.29 [c]	1.351	10.981***
Large home	2.76 [a]	1.130	2.39 [b]	1.018	2.21 [b]	.989	1.75 [c]	.894	17.605***

Notes: ***=.000, **=<.010, *=<.050; values that do not share letters are significantly different by *t*-test of the least squares means following ANOVA ($p < 0.05$) with Tukey's post-hoc test

While the relationship between neighborhood and consumer type (Table 4-8) is very strong, it remains possible that age, income, education and other factors associated with neighbourhood (see Table 4-6) might be responsible for the adoption of different sets of behaviours, more so than the neighbourhood itself. Thus in Table 4-10 I use a binary logistic regression to examine the effect of neighbourhood on cluster membership, controlling for variables that I found earlier to be significantly related with cluster membership (e.g., age, place of birth, years of education, and attitudes). In Table 4-10, membership in the sustainable consumer cluster is a binary dependent variable (where sustainable consumers were assigned a value of 1, while members of the three other clusters were given a score of 0).

Education was re-coded as a binary variable (1 = at least an undergraduate degree, 0 = all others), as was immigrant status (1 = born in Canada; 0 = all others). Age is measured in years. The attitudinal items presented in Table 4-7[28] were combined into an additive scale titled "environmental attitude" (Cronbach's Alpha = 0.633), with higher scores indicating more pro-environmental attitudes. Neighbourhood is coded as '1' for Millcreek and '0' for Terwillegar Towne.

Table 4-10 shows the logistic regression coefficient, Wald test, and odds ratio for each of the predictors. Employing a .05 criterion of statistical significance, attitude and neighbourhood of residence had significant partial effects. The odds ratio for neighbourhood indicates that when holding all other variables constant, a resident of Millcreek is nearly twice as likely as a resident of Terwillegar Towne to adopt those practices indicative of membership in the sustainable consumer cluster. Inverting the odds ratio for attitude reveals that for each one-point increase on the 7 – 35 attitudinal scale, likelihood of being a sustainable consumer increases by a factor of 1.2. Although not statistically significant, older people are less likely to be in the sustainable consumption cluster while Canadian-born respondents are more likely to be sustainable consumers. Future research with a larger sample size may reveal significant contrasts in

[28] The variable "environmental attitude" is a composite measure summing the statements, "Canadians should consume less", "I am upset when I see things wasted", "I chose to live close to where I work to minimise travel", "It is important to buy durable products", "Quality is important to me", "I feel better when I reduce", and "Our current economic system does not allow for a healthy environment"

these and other variables. The Hosmer and Lemeshow test of goodness of fit suggests that the model is a good fit to the data.

These data do reveal what I expected, with respect to the importance of neighbourhood in shaping one's constellation of sustainable daily practices. Additionally, it is not surprising that individuals with higher scores on the environmental attitude scale are more likely to be sustainable consumers, as this trend has been noted previously (Bamberg 2003; Dunlap et al. 2000). But most importantly, this analysis suggests that neighbourhood shapes behaviour. However, it might be that cluster membership also shapes one's choice of where to live, suggesting that behavioural practices shape important lifestyle choices, including place of residence. The importance of various neighbourhood attributes to the different clusters presented in Table 4-9 (e.g., living close to work) seem to suggest this is the case. The bi-directional nature of this relationship (neighbourhoods can shape behaviours; household adults engaging in certain behaviours may be more likely to choose to live in some neighbourhoods) will be an interesting question for future research.

Table 4-10. Binary logistic regression analysis of membership in sustainable consumption cluster (n=433)

	β	se β	Wald's Chi-square	p	eβ (odds ratio)
Constant	*-8.011*	*1.225*	*42.792*	*.000*	*NA*
Environmental attitude	.256	.041	38.758	**.000**	1.292
Age	-.008	.011	.511	.475	.992
Born in Canada	.167	.312	.285	.593	1.181
University education	.167	.252	.550	.458	1.206
Neighbourhood	.612	.263	5.432	**.020**	1.845

Test	*Chi-square*	*df*	*p*
Goodness of fit (Hosmer & Lemeshow)	6.645	8	.614

Notes: Cox and Snell R^2 = .152, Nagelkerke R^2 (Max rescaled R^2) = .215. NA = not applicable

Discussion

The cluster analysis reported here shows four distinct subgroups of respondents and suggests several interesting conclusions. First, adoption and frequency of sustainable daily practices techniques do vary across the sample and form distinct clusters of cases. The differences in behaviour are in number of practices adopted (particularly between mainstream and sustainable consumers) and emphasis on time-intensive versus cost-intensive behaviours (particularly across low-level consumers and material greens). While there is not a perfect alignment between our quantitative findings and Niemi and Hubacek's (2007) labelling for our empirical clusters, I do observe similar patterns depicting weak and strong sustainability.

Households adopt unique constellations of behavioural practices. Mainstream consumers are unlikely to hang their laundry or grow their own food but will pay more for something that lasts a long time and fix things rather than dispose of them. Material greens likely will not buy used goods or leave their vehicle at home to avoid driving, but they would buy local food if available (many participants mentioned the absence of farmers' markets in Terwillegar Towne as a barrier to buying local). Low-level consumers might be encouraged to play a more active role in their community to demonstrate low-impact living. Essentially, the cluster analysis demonstrates that while not all are engaged in a wide range of sustainable activities, most are involved in some sustainable household practices. This fits within existing research on social practice theory and ecological habitus – "a crucial goal for [the] formation of a more sustainable society is an ecologically appropriate logic of practice [–] living environmentally without trying[,] which is founded upon the routinization embodied in an ecological habitus." (Haluza-DeLay 2008: 206) Haluza-DeLay (2008) builds on the work of Pierre Bourdieu. For Bourdieu, daily practices are produced by the habitus. Habitus, "the product of history, produces individual and collective practices…" (Bourdieu 1977: 82) and is the constellation of habits and daily routines that each individual has. The unquestioned practices shape and are shaped by social context: a set of behaviours or beliefs can

become part of the social structure when individuals of a culture or subculture no longer question them.

The demographic and spatial profiles of the four clusters support arguments that the daily practices of reducing consumption that one adopts differ by household and are influenced by context (Shove 2003; Shove & Warde 2002). There are subtle distinctions in the attitudinal profile of the clusters. The greatest differences were related to the *quantity* of goods consumed (e.g., I feel better when I reduce how much I consume; It is important that Canadians consume less) while the slightest differences across clusters relate to the *quality* of goods consumed (e.g., It is important to buy durable products; Quality is important to me in choosing what to buy). This suggests that a thoughtful discussion of the importance of product quality for the environment (Laird 2009; Ruppel Shell 2009) might resonate with a broad set of households. It also points to nuances in attitudinal beliefs: believing that quality is an important feature of a consumption ethos is easier to put into practice than is the belief that one's society consumes excessively. Much has been written on the attitude-behaviour gap (Kollmuss & Agyeman 2002; Kennedy et al. 2009a) but this suggests that those holding more acute attitudes are likely to act with a more far-reaching ecological habitus than those with attitudes that fit within mainstream culture. The results of the logistic regression confirm that environmental attitude is an important predictor of sustainable consumption, controlling on significant demographic variables.

Equally important, the descriptive and causal analyses demonstrate that involvement in sustainable practices differs by neighbourhood. It has been stated that those in the suburbs are less committed to living sustainably than are others (Szasz 2007) and while there are more mainstream consumers in the suburban neighbourhood studied and more sustainable consumers in the central neighbourhood, I found strong evidence to suggest that context shapes households' daily practices. This finding lends support to the notion that suburbs are constructed and located in such a way as to preclude adoption of environmental behaviours, regardless of the values and intentions of residents. As Harvey (1989: 39) speculated, suburbanization is a "total restructuring of space to mobilize

demand so as to make the consumption of the products of the car, oil, rubber and construction industries a necessity rather than a luxury." In this way, the findings support structuralist explanations of sustainable practices (Davis 1991; Gould et al. 2004; Harvey 1989).

It is thus important to highlight the last finding of the study: that there are differences by cluster membership in reasons for choosing where to live. Thinking ahead to one's daily practices, a commitment to reduce vehicle-use is clearly made more challenging when living 15 km from the workplace and having limited access to public transit. Thus cultural differences between the clusters – and across the two neighbourhoods – appear. Sustainable consumers express environmental values through choosing a neighbourhood wherein they can more easily live in a sustainable manner. Mainstream consumers' expressed interest in having a large home implies a materialistic values set. These cultural differences are slight but important. Daily practices are strongly shaped by neighbourhood, thus choosing one's neighbourhood is an environmentally significant decision.

Conclusion

Cluster analysis revealed four types of respondents, according to their behavioural practices. Profiles of the clusters allow us to see how study participants with different patterns of consumer behaviour are distributed between central and suburban neighbourhoods, as well as to identify similarities and differences in priorities about where to live, attitudes, and socio-demographic characteristics between clusters. Findings suggest that sustainable practices vary across the population. Rather than depict a binary result (those who adopt sustainable practices and those who do not), I show that households differ by number of practices adopted and type of practice. Some households appear to practice weak sustainability, while others adopt strong sustainability behaviours. The clusters were profiled, revealing some differences in years of education, place of birth, age, attitude, and neighbourhood of residence, as well as motivations for

choosing neighbourhood. Using those variables that exhibited significant binary relationships with cluster membership, a logistic regression was used to control for inter-relationships among neighbourhood and these other variables. The multivariate regression analysis demonstrated that place of residence and environmental attitudes are strong predictors of membership in the sustainable consumption cluster, controlling on each other and on age, education, and place of birth.

We argue that environmental social scientists would do well to consider the importance of neighbourhood choice in future research, perhaps delving more deeply into how individuals select their neighbourhood. Deciding where to live has myriad repercussions on the daily practices a household adopts. Many citizens have agency with respect to choosing which goods to buy and the quantities they choose to buy, but are limited with respect to meaningful reductions in material consumption once they have chosen where to live (Zegras 2010), another form of "lock-in", as discussed by Christer Sanne (2002). The results of this study stress that while a suburban resident may feel strongly that people should consume less, their geographic location appears to significantly constrain their ability to meaningfully reduce their own consumption. Once living in a neighbourhood, residents are part of an ongoing project of shaping and reshaping that area. A central neighbourhood might attract those with an interest in community; a suburb might attract families looking for a safe environment and the opportunity to own a larger home. Regardless, the characteristics of the neighbourhood are transmutable and the actions and choices of its inhabitants become vital to the renewal and re-characterisation of place. By failing to attract critical numbers of individuals committed to reducing consumption and failing to invest in public commons (as spaces that foster community development), Terwillegar Towne is contributing to the growing polarization between urban and suburban residents that de Maesschalck (2010) observes. The discrepancy between structural barriers to living sustainably across the two neighbourhoods is yet another meaningful contrast leading to the cementing of unique cultural norms in urban and suburban places.

The results here show varying adoption of environmental practices, yet suggest that this difference is due to context rather than demographic traits. In brief, suburban residents are not diametrically opposed to reducing consumption or participating in more low impact practices but their practices are shaped by context in a different manner than the influences of residents of central neighbourhoods. I argue that efforts to understand the challenges to sustainability posed by living in suburban areas should be more thoroughly researched and communicated. It is unlikely we will see the end of neighbourhoods such as Terwillegar Towne, thus it is imperative to understand how to make such neighbourhoods more sustainable within the parameters of social acceptability and financial possibility. Terwillegar Towne opened a community garden in 2009 and was recently connected to Edmonton's light rail transit system. Such improvements are an important step towards improving residents' ability to reduce their environmental impact.

It is at the community level – the level at which people's lives and relationships play out and the natural environments in which they operate – where cultural transformations can take place (Davis 1991). Those households engaging in a broad array of sustainable practices in the suburbs are helping to shift cultural norms in their neighbourhood away from the highly consumptive, a process more formally recognized by the transition towns movement (Transition Towns 2006). Successful intervention to environmental issues is highly noticeable at the neighbourhood level (Bridger and Luloff 1999). Understanding variations in the adoption of sustainable practices (type of practice and quantity of practices) is of central importance to work in social practice theory and in the policy and practice of sustainable urban development.

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CHAPTER 5: CONCLUSION

Social practice theory provides a valuable wide-angle lens through which to understand how context shapes daily actions and how individuals and groups of individuals can influence context (Middlemiss 2009; Reckwitz 2002). There are likely infinite rules and resources affecting individual behaviour from advertising campaigns (Adorno & Horkheimer 1944; Jhally 1989) to shareholders' demands for profits. Effecting change in many arenas is likely beyond the purview of most households. Yet to give up on the individual would, I feel, be in error. Social movements are often the result of the actions of small groups of individuals unsatisfied with mainstream responses to social and environmental crises. For example, Greenpeace (Brown 1995) which grew from the peace movement to its current status as an international environmental non-governmental organization, and the Chipko movement (Weber 1989) which began in India in the 1970s as a protest against deforestation and gained international recognition as a form of resistance against gender inequality and environmental destruction. Given that the scope of household environmental practices is at the local, daily level, an emphasis on how people can shape their neighbourhoods – and how they choose where to live – should form a part of environmental sociological inquiry. Reclaiming consumption involves recognition that acting as an individual is a less powerful form of resistance to consumer culture than acting as a group. Informal collective action at the neighbourhood level inspires deeper commitment to reducing consumption and facilitates the ability of several households to reduce barriers to sustainable living for their neighbourhood.

Summaries

The research questions guiding this dissertation are:

- What contributions have been and could be made by environmental sociology to the study of sustainable consumption?
- What is the role of informal social networks in reducing household consumption?
- Do households adopt unique clusters of sustainable daily practices?
- If so, does place of residence, environmental attitude, or socio-demographic profile affect membership in such clusters?

In chapter 2, I reviewed literature relating to sustainable consumption to define the parameters of my line of inquiry. Given that the social practices approach is focused on daily practices, incorporates structure and agency, and has been used in empirical research, I concluded that this was the most appropriate lens for my research. The quotidian nature of environmental behaviour is what makes the social practices approach such a valuable framework through which to study sustainable consumption. Keeping in mind both structure and agency, I interviewed families with young children who were trying to reduce their material consumption. I asked about what made it easier and more difficult to reduce consumption and how doing so added to or detracted from quality of life. Relevant to both quality of life and adoption of sustainable daily practices, I found that membership in a network of like-minded individuals was vital to reducing barriers to and maintaining interest in sustainable living, and helping others to reduce their consumption. Quality of life was also more directly related to reducing consumption for those who are part of a network.

Chapter 3 focuses on how individuals committed to ecological citizenship can coalesce as an informal network. It further explores their potential to accelerate adoption of sustainable behaviours for members of the network and lessen the barriers to reducing for others in their neighbourhood. I found no evidence of such a network in the comments of those who lived in suburban areas of the city, leading me to consider neighbourhood as an important contextual variable defining daily environmental practices. I found that the elements that fostered the formation of a network included the presence of public meeting points, the opportunity to conspicuously reduce consumption, and the presence of other like-minded households. The benefits of the neighbourhood network included serving as a source of inspiration for others, facilitating knowledge exchange and resource sharing, and providing a foundation for more public environmental acts, including lobbying for a family bus pass rate, offering tours of a Net Zero home, and starting and supporting children's activities so that families could avoid driving.

In response to the qualitative findings presented in chapter 3, chapter 4 presents a cluster analysis of the quantitative sample and uses multivariate statistics to profile the

four resultant subgroups and determine the impact of neighbourhood type on sustainable practices. The data are drawn from a survey of two neighbourhoods – urban and suburban (n=491). I found that place of residence was one of the few variables across which clusters differed. There were more mainstream consumers (who score low on all behavioural practices) and material greens (who reflect weak sustainability practices) in the suburban area and more sustainable and low-level consumers in the central neighbourhood (those who practice all environmental practices included and those who would take on time-intensive practices over cost-intensive practices). I attribute such differences to the physical structure of suburbs (e.g., location from city centre, lack of local retail and recreation centers, road layout), as well as the social structure (e.g., visibility of high-consumptive behaviour, challenges for like-minded households to find one another). In short: neighbourhood matters. Without informal networks of ecological citizens it is unlikely that environmental practices in the suburban area will become more common; without public meeting points and opportunities for community engagement, it is unlikely that such networks will form.

Theoretical, methodological and policy contributions

Theories of consumption are in a "theoretical cul-de-sac" (Schor et al. 2010: 275) and some argue that the rejection of critical theories has made moral critiques of consumption politically incorrect. Critical theories (as developed by Theodor Adorno and Herbert Marcuse, among others) have been accused of failing to ascribe sufficient agency to consumers. Yet due perhaps to the current hegemony of neo-conservative values, those who critique consumption often find themselves on the receiving end of vitriolic attacks for doing so (Schor 2007). Schor et al. (2010: 278) point out that these attacks are often made personal, and Schor comments on her belief that consumption constitutes a particularly sensitive topic in sociology:

> I have begun to think that consumer critique occupies a singular place in the scholarly literature, and inspires a passion not seen with other topics…Where does this demand for accountability come from? No one holds moral philosophers accountable for their extra-

> marital affairs. No one holds free-market economists accountable for accepting tenure, an anti-competitive practice if ever there was one.

As sociologists abandoned the search for a grand theory of consumption, there seems to have been a shift towards social psychological theories of individual behaviour (e.g., Poortinga et al. 2004; Stern & Dietz 1994). These approaches are certainly valuable although considering the individual as autonomous risks falling into a rational choice model of sustainable behaviour. I use the term reclaiming consumption to refer to a form of ecological citizenship that stresses the importance of social networks: an informal, collective approach that serves to facilitate reductions in material consumption for members as well as to support social shifts to low-impact living.

Reclaiming consumption is more common in central neighbourhoods for the reasons mentioned above: central meeting points, opportunity to conspicuously reduce consumption, and presence of like-minded households. Because the household is the site of so many sustainable daily practices (Barr & Gilg 2006), I focus strongly on neighbourhood as a structural influence on consumption practices, and find empirical support for doing so. Neighbourhood of residence was a strongly significant variable differentiating behavioural practices for the sample used in this research. Those who are reclaiming consumption recognize that living sustainably is made easier when one is surrounded by others who support a commitment to sustainability and encourage the adoption of additional sustainable practices over time. In addition to shaping daily practices for those in the network, I argue that the actions of such networks also constitute an important part of the citizenly duties of those involved. Reclaiming consumption incorporates the increased efficacy of groups of households to have an impact on the social norms and other barriers to sustainability in their neighbourhood. Acting alone, it is difficult to establish a critical presence of households committed to sustainability; acting with others, it is possible to create a sense of something larger, and of being part of a social network that serves an important response to the demand for a more sustainable society.

I also hope to have contributed to the theory of ecological citizenship. There is much agreement that the consumer society is at odds with the pursuit of democracy and rich citizenship (Etzioni 2004; Hobson 2003), yet conventional methods for encouraging sustainable behaviours seem to focus largely on the individual (e.g., marketing of green products, ecological footprint measure of individuals). The individuals who form the network I described in chapter 3 manifest an ecological citizenship that has a degree of agency beyond the sum of its parts. The future of sustainable consumption may well lie in elaborating on the notion of ecological citizenship. However, rather than adopt the predominant individualistic conceptualization, the results of this research suggest ecological citizenship would be made more effective by considering the role of social networks, as Passy (2001) did in her analysis of social movements. Hobson (2002: 102) describes an ecological citizen as "someone who has internalized information about environmental problems, creating a sense of personal responsibility and duty that is then expressed through consumption and community actions." Yet ecological citizenship is often restricted to the confines of the individual; its ontological focus fails to discern between individual and group (Dobson 2003). My research has demonstrated that distinguishing between individuals and networks as ontologically distinct entities could further develop the theory of ecological citizenship. The cluster analysis also has the potential to inform future development of social practice theory as applied to sustainable consumption. In brief, by acknowledging the way unique physical and cultural structures affect adoption of sustainable daily practices, this research suggests that there is a link to be made between the applied study of urban planning and the theoretical outlook of social practice theory.

I have also added to the scope of environmental sociological inquiry by showing that choosing where to live constitutes an important environmental choice and seeking to shape local context constitutes important environmental behaviour. Regardless of one's neighbourhood, the results of chapter 3 demonstrate the efficacy of informal networks for deepening household commitment to reducing consumption and increasing the sense of satisfaction derived from these practices. In this respect, the decision to conspicuously reduce consumption is also an important one. I have argued that the lack of public

meeting points and opportunities to demonstrate conspicuous reductions in consumption limit the ability to reclaim consumption. The need to publicly or conspicuously reduce consumption might also be part of living sustainably. As Etzioni points out, "Consumerism sustains itself, in part, because it is visible." (2004: 416) It is therefore of great importance that ecological citizens attempt to serve as role models in whatever communities they form a part. Bearzi (2009: 2-3) states:

> I suspect that an important part of the challenge [of sustainability] is to be a good example in the first place, no matter what others do. It is striking to see how many people committed to conservation have not abandoned a single consumptive pattern, despite the eco-drama before our eyes.

Furthermore, I have shown that the daily practices of suburban and central residents differ. As described above, where one chooses to live has implications for the likelihood of being part of a network of like-minded others. Chapter 4 showed that there are more material greens and mainstream consumers in the suburban neighbourhood. The material greens' approach to reducing consumption aligns with the principles of weak sustainability, the notion that buying "green" constitutes sustainable consumption. Strong sustainability, as practiced by sustainable consumers, involves engaging with others and trying to limit the amount one consumes (Uzzell & Rathzel 2009). If the suburbs are conducive to weak sustainability, academics, planners, and others should critically examine the features of the suburban context which preclude strong sustainability.

The cluster analysis also demonstrated that there are multiple constellations of sustainable daily practices in the sample. Responses to the need for a more sustainable future are not and will not be homogenous. Evans and Abrahamse (2009: 500) speak to the need to discuss "sustainable lifestyles rather than sustainable lifestyle" and I find this coheres with the findings from chapters 3 and 4. It draws attention to the fact that most households practice behaviours that are at once sustainable (e.g., biking to work) and unsustainable (e.g., flying to a southern vacation destination) as well as to the fact that there each household adopts a unique array of sustainable practices as part of their way of being in society.

Methodologically, my use of mixed methods demonstrates the efficacy of using qualitative research to construct a survey and to explore the practices of a small subculture. The network examined would likely not have been picked up through survey research due to its small size. At the same time, the survey data provided insight into the diversity of practices adopted by individuals and provided information on how urban context shapes daily environmental behaviour. The cluster analysis in chapter 4 shows that only a small proportion of the sample (in either neighbourhood) does not engage in any attempts to reduce consumption, emphasizing the importance of studying how social practices fit together and how sets of practices are informed by attitudes and social context. I will focus on this line of inquiry in subsequent research. Monitoring the proportion of mainstream consumers over time may reveal interesting trends in adoption of social practices that could be easily overlooked due to the private nature of household practices.

The most relevant findings for policy are the fact that the social network examined in chapter 3 formed in a neighbourhood with public meeting points, where residents have the opportunity to conspicuously display their environmental practices, and where there exist households committed to reducing consumption. Broadly, this research supports calls to develop the commons as part of the pursuit of sustainability – not only in central and older neighbourhoods but in new and suburban areas as well (Kingwell 2000). As one urban sociologist writes, "Community is dead, but not irrevocably so. It can be built again, on the same kind of framework that earlier communities were based on, with fixed attachments to place remade." (Savage 2005: 358) The network examined in chapter 3 reveals that it is not necessary to wait for sweeping legislation to spur a shift towards sustainability, yet the response of the network also sheds light on the importance of scale. My findings suggest that to enhance household sustainability, broad-based coalitions (formal or informal) can do much to lessen barriers to sustainable living and shift norms towards sustainability. In this way, future research might explore the potential for informal social networks to form or support social movements. Passy (2001) and Passy and Giugni (2001) describe how social networks can increase individual commitment to and enjoyment of participating in

social movements and argue that there is a need for understanding the broad array of functions of social networks and how these functions are differentiated across individuals.

This work also adds to existing critiques of messages calling for individuals to do their part for the environment. Spaargaren et al. (2006: 24) contend that "the key tasks for the social sciences are to formulate forms of governance that trigger reflexivity by de-routinising social practices, activate human agency/and outline possible choices in ways that fit the specific risks of second modernity." Yet the approach adopted by many environmental organizations to encourage participation in environmentally significant behaviour has been quite uninspired and has had little success. In the words of others, environmental organizations have been "somewhat *unreflexive* as to the conditions necessary for advancing mobilization in the light of recent and on-going economic, social and cultural change." (Macnaghten 2003: 66, emphasis in original) A range of empirical studies confirms this proposition. One issue is the difficulty in connecting the broad and ambivalent term 'the environment' to a set of daily routines. As Burningham and O'Brien (1994: 916) state: "Unlike your house, school, place of work and so on, the environment has no fixed dimensions that fit into a 'normal' routine pattern of life." Lessons drawn from similar research imply the need for environmental organizations to incorporate messages that demonstrate daily behaviours that constitute a response to environmental problems and characterize environmental issues as problems for humans, particularly for individuals, families, and neighbourhoods.

Discourse based only on 'the environment' fails to engage individuals; Hobson (2003) found that individuals respond more holistically to messages based on social justice rather than environmentalism. In another example, Ingold (1993) suggested that depicting the environment as separate from the daily lives of human beings serves to isolate individuals from participating in an informed response to environmental crises. Burningham and O'Brien (1994) concluded that few participants of their focus group study connected positively to emotional appeals using images of charismatic mega-fauna and fear-inducing slogans, preferring instead images that depicted hope: families cycling,

a landscape dotted with windmills. This leads to a related problem in current messaging – individuals connect more strongly to appeals that show *how* to respond to a problem. Macnaghten (2003: 80-81) argues that in contrast to current approaches, "institutional strategies need to start from people's concern for themselves, their families and localities as points of connection for the wider, 'global' environmental issues." Further, he adds that when people feel connected to others, the act of changing daily practices will be sustained in the longer term and will add more enjoyment and pleasure to sustainable daily practices.

Limitations and future research

Methodological limitations of this research include the challenge of measuring engagement in environmental practices in the qualitative and quantitative phases. Frequency of participation in sustainable practices or agreement with the statement "I attempt to reduce my environmental impact" does not necessarily translate to a direct measure of households' environmental impact (or ecological footprint), but rather demonstrates a behavioural commitment to reducing consumption. For much behaviour, it may also be difficult to untangle environmental motivations from the desire to save money, live healthier, and so on. Also, because analysis of the qualitative data was ongoing throughout my Ph.D., design of the survey instrument did not reflect later qualitative findings (such as the role of having neighbours inspire greater commitment to environmental behaviour). This is a difficulty with mixed methods research: the timeline of thorough qualitative and quantitative analyses does not align with that of a Ph.D. Also, due to the disparate nature of theory relating to sustainable consumption, exhausting theoretical avenues of study was an exigent exercise. For example, the work of Ulrich Beck, Anthony Giddens and other theorists of the risk society may be appropriate for the study of sustainable consumption as well, as many households may be motivated by a fear of environmental crises and change.

There are several lines of inquiry that could develop from this research. First, qualitative study could seek to separate environmental from economic motivations for engaging in sustainable daily practices, which could develop the study of weak / strong sustainability and add to the ability of non-governmental agencies to communicate to public audiences about reducing their environmental impact. Second, an interdisciplinary research team could seek to measure the actual environmental impact (e.g., through a life cycle analysis) of various households in suburban and urban contexts, perhaps connecting this information to the cluster analysis in chapter 4. This data could add an empirical dimension to existing critiques of weak sustainability. Third, I would like to use data from a provincial survey to conduct a cluster analysis with a larger sample. I expect that the resulting clusters may differ and these results could be used to develop a social practices model of household behaviour by locating how differences in the physical structure of a neighbourhood and the dominant cultural archetype in a neighbourhood affect daily practices. And fourth, it would be valuable to explore informal social networks of ecological citizens in urban and rural contexts in Canada and globally. Finally, further qualitative study purposively locating male participants could illuminate gender differences in sustainable daily practices.

Concluding comment

There is much agreement that the consumer society is at odds with other social goals such as environmental sustainability and social equity (Etzioni 2004; Hobson 2003), yet so too are conventional methods for encouraging sustainable behaviours. The emphasis of many policy campaigns (e.g., Canada's *One Tonne Challenge*) and academic research (e.g., Kennedy et al. 2009; Stern & Dietz 1994) is often on the individual. The individuals who form the network I described in chapter 3 manifest ecological citizenship that has a degree of agency beyond the sum of its parts. Rather than adopt the individualistic conceptualization of ecological citizenship in its current form, the results of this research suggest the practice of ecological citizenship would be made more effective through engagement in social networks.

Above all, this dissertation demonstrates the extent to which neighbourhood impacts daily practices. First, in chapter 3, I showed that individuals acting alone are not as effective in altering social structures as are individuals acting with others. In fact, acting alone serves to lessen commitment to reducing consumption for some. Second, the cluster analysis described in chapter 4 shows how adoption of social practices varies by neighbourhood: suburban residents are much more likely to adopt weak sustainability practices; central households are more likely to adopt strong sustainability practices. The qualitative findings suggest that one variable differentiating these clusters may be access to social networks of ecological citizens. Sustainability is more than taking cloth bags to the grocery store. For this reason, reclaiming consumption involves encouraging others to adopt the same behaviour, leading by example or addressing barriers to entry. If human societies are to consume more sustainably we must increase and diversify involvement in political processes, forming alliances that can compete with producers for the ear of policy makers. This will likely entail the creation of relationships with others in our neighbourhoods and communities of interest: in short, it will require voluntary, local, collective action.

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Appendix A: Reflections on Methods

The Mixed Methods Approach

Methodologically, this work is driven by a pragmatist orientation and relies on mixed methods (semi-structured interviews and a questionnaire). Mixed methods, or mixed methodology emerged out of the epistemological debates between positivists and constructivists. Advocating the subjectivity of knowledge, constructivists launched a pronounced attack on the tenets of positivism (and post-positivism, a more nuanced form of positivism that tempers its naïve realism and acknowledges the role of subjectivity) in the 1980s. The paradigm wars of the 1980s created sharp divisions between positivists and constructivists while some researchers continued to practice research, eschewing ontological and epistemological debates and instead privileging the research question (Tashakkori & Teddlie 1998). This group of researchers ultimately came to define and develop the term 'mixed methods' in the 1990s (Morgan 2007; Onwuegbuzie & Collins 2007; Tashakkori & Teddlie 2003). Mixed methods refers to the combination of qualitative and quantitative techniques in a single study. The methods may be mixed during the design of research questions, in the sampling frame, data collection process, data analysis, or at all stages (Tashakkori & Teddlie 1998).

Quantitative methods are useful for noting trends at the population level, for making predictions, for building theory deductively, or for describing relationships between variables (Onwuegbuzie & Leech 2005b). Qualitative methods are more often used when one's research purpose is to define a concept, to make meaning of a social phenomenon, to build theory inductively, or to understand a single case (Onwuegbuzie & Leech 2005b). Quantitative questions relate to correlation, causality, or the search for a precise measure of a social phenomenon (Onwuegbuzie & Leech 2005b) while qualitative questions are usually process-based, and may seek to describe a certain context or to capture multiple dimensions of a social phenomenon (Onwuegbuzie & Leech 2005b).

Some mixed methods researchers practice research from a post-positivist paradigm (Perlesz & Lindsay 2003). However, most use pragmatism as the foundation for mixed methods research (Bryman 2007; Denscombe 2008; Onwuegbuzie & Collins 2007; Onwuegbuzie & Leech 2005b). Pragmatism grew from the work of John Dewey and Charles Peirce, who argued that social behaviour should be analysed with consideration for describing actual behaviour, exploring the values underlying one's behaviour, and assessing the impacts of the behaviour (Morgan 2007). Pragmatists' ontology acknowledges that there are many truths and versions of reality yet pragmatists are comfortable privileging certain truths and constructions of reality over others (Tashakkori & Teddlie 1998). Epistemologically, pragmatists view research as an intersubjective process. Rather than focus solely on how results can be co-constructed, pragmatists note the iterative and reciprocal relationship between participant and researcher throughout the research process (Tashakkori & Teddlie 1998). Perhaps the most distinctive feature of pragmatic research is the central role of the research question. In this sense, pragmatism approximates a 'shared practices' and 'worldviews' definition of 'paradigm'. However, placing pragmatism on a spectrum from positivism to constructivism, the paradigm would be located between post-positivism and constructivism.

Research Ethics

This research was granted research ethics approval by the Faculty of Agriculture, Life, and Environmental Sciences (ALES) at the University of Alberta for phase one, and by the University's Human Ethics Research Office for phase two. Phase one was the qualitative interviews; approval for this stage of the research was received in May 2009. Ethics approval involved completing a form and submitting it to the ALES ethics representative and appearing before a University of Alberta Research Ethics Board to answer questions about the application. Appendix B includes the information and consent form (I was allowed to obtain only verbal consent from participants for this research) as well as the approved interview guide. The consent form grants permission to the research team to use results in presentations and publications but guarantees that their names and

any other identifiers will not be used. The interview data was only accessible to Dr. Krogman and Emily Kennedy. In April 2010 I was given ethics approval for the quantitative phase after submitting and making subsequent amendments to an online application form. Appendix C includes a copy of the questionnaire. The survey data was available to Dr. Krogman, Dr. Krahn, Dr. Hahn, and Emily Kennedy.

Interviews

I used principles from ethnography to design the interview guide (see Appendix B) and conduct the interviews. Ethnography is the study of the culture of groups of people (Spradley 1979). By 'culture', ethnographers refer to "the beliefs, behaviors, norms, attitudes, social arrangements, and forms of expression that form a describable pattern in the lives of members of a community or institution" (LeCompte & Schensul 1999: 21). In keeping with a social practices orientation, I attempted to keep in mind context when selecting participants, conducting the interview, and analyzing interview data. The purpose of the in-depth interviews was to collect detailed information about the subculture of reducing consumption. I focused on participants' personal histories and possessions, the extent to which they felt they fit into mainstream culture, and their assessment of the beliefs and norms that underlie mainstream culture and sustainable subcultures (LeCompte & Schensul 1999). A focus of the interviews was on participants' descriptions of their daily practices as they relate to reclaiming consumption.

Throughout the interview process I referred to the literature to guide question development and thematic analysis. Thus my research was co-produced by the data and the literature. A primary purpose of the analysis was to watch for evidence of or comments on the harried pace of life for many Canadians, the environmental impacts of consumption, and individual happiness and well-being. These broad themes structured my thematic analysis (see Appendix C for themes). I used the data from the interviews to understand the practices and patterns of behaviour inherent to a culture of reclaiming consumption, and to construct the survey instrument (Appendix D).

Setting

I conducted all of my research in Edmonton, Alberta. Albertans consistently spend more money on consumer goods than any other province in Canada (Statistics Canada 2006; 2008). On average, Canadian households spent $71,360 on goods and services, while household spending in Alberta was $86,910 for the same year (Statistics Canada, 2008). Edmonton, Alberta's capital city is home to 730,372 residents (Statistics Canada, 2006). The city has the third highest average household expenditure of all major urban centres in Canada ($78,194), after Calgary ($97,483) and Toronto ($81,046) from 2006 data (Statistics Canada 2008). Edmonton is a relatively isolated city. There are few major recreation areas within a three-hour drive from the city so weekends rarely see an exodus of residents. There is an active festival scene, particularly during the summer, with music, theatre, arts and culture presented throughout the city. The river valley area is one of the most extensive urban park networks in Canada, with trails on both sides of the river extending many kilometres. Details on the neighbourhoods chosen for the survey follow. Edmonton has one of the lowest population densities of North American cities. It is ranked 178th out of the 250 largest cities in the world for density (City Mayors 2007; http://www.citymayors.com/statistics/largest-cities-density-250.html)

Survey

The goal of the survey was to compare central and suburban residents by behaviours, quality of life, time use, attitudes, and motivations for choosing their neighbourhood. After conducting the interviews, I was able to narrow down the central area to Riverdale and Millcreek. I ultimately chose Millcreek because it is more readily accessible to shops and services. It also has a history of community involvement, and it is easy to walk, bike, or take public transit to the University and downtown. For the suburban case, I chose Terwillegar Towne because it was designed to adhere to New Urbanism principles, but is far from the city, is not easily walk/bikeable to shops and services and has few (if any) neighbourhood establishments. Compellingly, I also had a participant decide to move from Terwillegar Towne during this study because of her experience of its culture of high consumption.

The two cases are also an appealing comparison because they share similar home values; both have a majority of single, detached dwellings, and have comparable lot sizes, although the homes in Millcreek are smaller, on the average. Figures 2 and 3 show the sampling area for Millcreek and Terwillegar Towne, respectively.

Figure 6-1. Millcreek sampling area (Source: Google Maps)

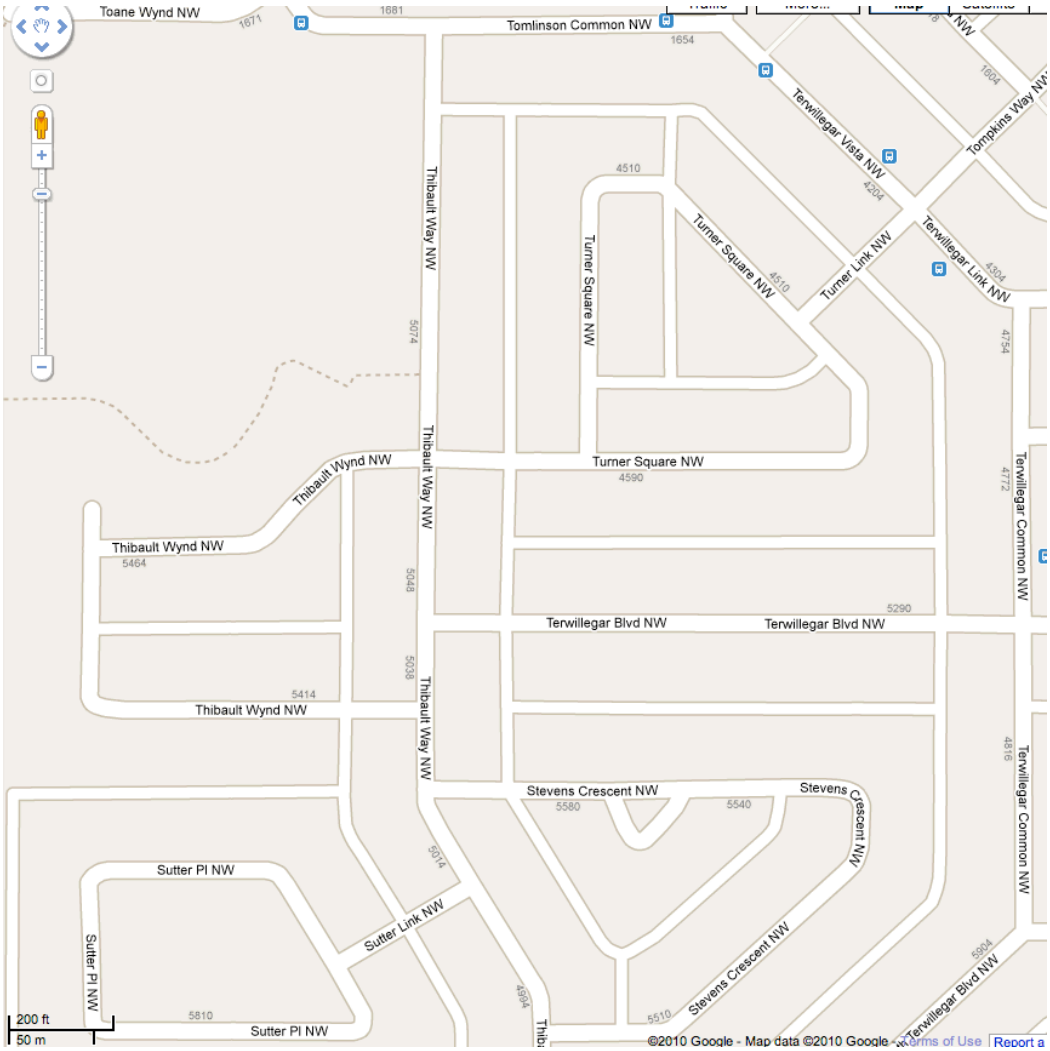

Figure 6-2. Terwillegar Towne sampling area (Source: Google Maps)

Millcreek is a smaller area than Terwillegar Towne. To ensure that I surveyed roughly equal numbers of homes in each neighbourhood and comparable contexts, I sought an area of Terwillegar Towne that had access to a natural area and some services. Millcreek is bordered on its east by a park and to its west and south by streets with many shops and services. In Terwillegar Towne I was able to find an area near a man-made pond that was within 3 km from a Mac's convenience store. Each area has roughly 400 homes.

After developing and printing the survey instrument and cover letter (see Appendix D), and preparing the survey packages, I delivered the questionnaires door-to-door in each neighbourhood. To assist me, I hired four students in the Terwillegar Towne

stage and three students for the Millcreek stage. The students delivered questionnaires in teams of two for the first ten days and on their own subsequently. Armed with a bag of questionnaires and a notepad, we would attempt to meet a member of the household at each home at least three times. Once successful, we would explain that the survey is part of a PhD thesis at the University of Alberta, that it is about quality of life and daily activities, and that it takes about 20 minutes to complete. We also specified that we could return to pick up the questionnaire at a time convenient for the respondent. We started in Terwillegar Towne on May 18, 2010 and finished May 26. We were in Millcreek from May 26 to June 8. In both neighbourhoods we delivered and picked up surveys from Monday to Friday between 4-6 p.m. and on Saturday between 10 a.m. and 3 p.m.

Figure 6-1 shows the decision matrix for delivery and pick up of questionnaires. We visited each home at least three times to try and get an answer, both when delivering the questionnaire for the first time and when picking it up. Three respondents in Terwillegar Towne chose to have us fill out the questionnaire with them; the remainder of the respondents (n=483) completed it alone, with most choosing to have their questionnaire collected by the survey team. After completing the Terwillegar Towne portion, we discovered the return envelopes had insufficient postage and spoke with a Canada Post employee. Most envelopes were returned (72 out of 100) so we suspect the postage was not a problem. Still, we added additional postage to the remaining envelopes. To conduct the quantitative analysis, all questionnaires were entered into SPSS Version 18.0 (Statistical Package for the Social Sciences) by students and cross-checked for consistency. I also used frequency distributions to check for data entry errors. I created new variables by making categories out of existing variables (e.g., age) and by building scales of conceptually related items (e.g., community engagement). I conducted descriptive statistics to examine relationships between variables and to check for normality of the variables. I conducted cross-tabulations to look at the effect of neighbourhood on distance of commute, sustainable transportation choices, motivations for choosing where to live, time, and attitudes. I conducted independent t-tests to examine differences in number of cars, as well as the behavioural scales for the two neighbourhoods. Finally, I conducted a cluster analysis to locate groups of similar

Figure 6-3. Delivery decision matrix

respondents, according to behavioural items. More detail on the cluster analysis can be found in chapter 4.

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Appendix B: Interview Guide & Informed Consent

Interview Guide

Explanation of Research: This interview is part of the research I am conducting for my PhD thesis. The focus of the interview is on your consumption choices and quality of life. I will record the interview. Since you have read and signed the informed consent form, I presume that you understand your role in this research. You may ask any questions as they arise during or after the interview. Do you have any objections or questions at this point? Do you consent to participating in this research project?

1. What are you proud of about the way that you and your family live?
2. I understand that you try to reduce your material consumption – have you always?
    1. Y: what has influenced your desire to reduce?
    2. N: can you tell me the story of how you came to try to reduce?
3. What makes it easier for you to consume as you do?
    1. Touch on where you live, work, time, money, family & friends
4. What makes it more difficult to consume as you do and may stop you from doing things you'd like to do?
    1. Touch on where you live, work, time, money, family & friends
5. In what ways do your consumption decisions benefit your quality of life?
6. Are there any ways that consuming as you do reduces the quality of life for you and your family?
7. Is there anything I should have asked that I didn't?

Informed Consent Form

Purpose of the Research: To explore the relationship between quality of life and material consumption.

What You Will Be Asked To Do: Participate in a tape-recorded interview that may last from 1 to 1½ hours and possibly attend a later interview for follow-up questions.

Benefits of the Research: The proposed research will help us understand low material consumption lifestyles.

Risks of the Research: Because I am only interviewing 10-15 people, there is a risk that you may be identifiable by your interview.

Voluntary Participation and Withdrawal from the Study: Your participation in this study is completely voluntary. You may withdraw from the study before the results are published or presented. Your withdrawal will not affect your relationship to the research

team in any way. You are free to withdraw at any time during the interview; you may also refuse to answer any question during the interview.

Confidentiality: Your interview will not appear with your name in any report from this research. If parts of your interview appear in a report you will be given an alias to protect your identity. I will also remove any identifying information in order to protect your privacy. If there is a specific quotation that may identify you, I will contact you for permission to use it. The tape and typed interview will be stored in a secure room and only my supervisor and I will have access to the interview.

Use of Information: I will use the information collected during the interview to understand the relationship between quality of life and material consumption. Your interview will also help me to develop a survey that will be distributed in Edmonton in 2010. I may use the results of the interviews in future research, publications, and presentations. My supervisor may listen to the tapes and read the typed interview to assist me with my project.

Informed Consent: If you agree to participate in the interview, you will be asked to sign a consent form before the interview begins. You will be given a copy of the form to keep for future reference.

Contact Information: Questions about the study may be directed to:

Emily Huddart Kennedy	Dr. Naomi Krogman
PhD Candidate	PhD Supervisor
Department of Rural Economy	Department of Rural Economy
University of Alberta	University of Alberta
(780) 862-8667	(780) 492-4178
huddartk@ualberta.ca	naomi.krogman@ualberta.ca

Appendix C: Themes from NVivo

Name
RECLAIM

-	Buying quality
-	Buying used
-	Change habits
-	Connection with environment (nature)
-	Control TV, advertising
-	Debt-free
-	Fear-based messaging, avoid
-	Limit consumption...or not

-	Big homes
-	No car
-	Small home

-	Local living

-	A home-based life

-	One parent at home

-	Home schooling

-	Wise household management, task delegation etc

-	Community

-	Quality of Life
-	Sharing
-	Social norms
-	Support the commons

-	Create new commons

-	Time

RECREATE		
-	Building communities for living	
-	Civic action	
-	Ecological Citizenship	
-	Govt and individuals	
-	Lead by example	
	-	Raising responsible next generation
-	Social capital	
-	Sustainable business	
RETHINK		
-	Environment and Economy	
-	Evolving motivations and ability to reduce	
-	Getting out of the work world	
-	Give up on perfect	
-	Importance of education	
-	Individualism-Collectivism	
-	Instant gratification	
-	Invidious distinction	
-	Mindfulness	
-	Redefining success	
-	What makes us happy	
-	Where you live	
The influence of and on Children		
-	Kids as motivation to reduce	
	-	Inspiring kids
	-	Raising responsible next generation
-	Kids increase consumption	
	-	Inhibit community involvement
	-	Overscheduling
	-	Providing opportunities for

	...
-	TV & marketing

What makes it difficult to reduce

-	Consumer options
-	Consumer society
-	Drivers of consumption

-	Cars
-	Power
-	School
-	Work

-	Egotism
-	Family
-	Lack of Money
-	Lack of political will
-	Lack of skills
-	Lack of Time
-	Other families
-	Poor City Planning
-	Retail Therapy
-	Where you live

What makes it easier to reduce

-	Don't have a lot of money
-	Knowledge
-	Motivations to reduce

-	Crisis point
-	Environment
-	Frugality
-	Self-sufficiency
-	Travel or living in places where people have less
-	WASTE

-	Self-confidence
-	Simplicity
-	Values

-	Religion, Spirituality
-	Upbringing

Appendix D: Survey instrument and cover letter

Survey of Community, Quality of Life & Environment

Emily Kennedy, PhD Candidate
edmontonsurvey@gmail.com
780.862.8667

Dr. Naomi Krogman
edmontonsurvey@gmail.com
780.492.4178

We ask that the person in your household who is most knowledgeable about your household's purchasing and consumption choices fill out this questionnaire. However, please feel free to consult with others in your household. Anyone filling out the survey should be over 18 years old.

Hello,

Your neighbourhood has been selected as one of two Edmonton areas in a study being conducted for a PhD thesis at the University of Alberta. The focus of the research is on the impact of your household's day-to-day purchasing and consumption choices on you and your family's quality of life and on the environment. The benefits to this study include advancing our understanding of the advantages of, and barriers keeping us from, sustainable living. We do not foresee significant risks to you as a result of your involvement in this study.

This questionnaire is not a test and your responses are most useful if they are as truthful as possible. Your answers will be treated confidentially, and once we have received them, they will be made anonymous. The tracking number on the first page will be used only to ensure that once your questionnaire is returned, we delete your address from our records and no reminders or additional mailings are sent to you. No individual answers will ever be made public; only anonymous summaries of responses from all study participants will be released. We will use this information for public presentations and reports.

This survey is voluntary and by returning a completed questionnaire we are assuming your consent to participate in the survey process. This research is funded by the Social Sciences and Humanities Research Council of Canada. The questionnaire takes approximately 20 minutes to answer. If for some reason you prefer not to respond, please let us know by returning the blank questionnaire in the enclosed stamped envelope.

We will obtain the best results if you fully complete the survey, but if there is a particular question you do not wish to answer, feel free to leave it blank and go to the next question. Your responses will be part of a data set once we have eliminated any information that could identify you personally. This data set will be kept on only two computers by Ms.

Kennedy and Dr. Krogman for a maximum of 5 years.

To return the questionnaire, you may deliver it in person to the survey team representative who will be in your neighbourhood for two weeks, leave the questionnaire in your mailbox for our team to collect, or use the stamped envelope to mail your questionnaire to the research team.

Thank you so much for your help and your time with this important study,

Sincerely,

Emily Kennedy, PhD Candidate Dr. Naomi Krogman, PhD

Department of Rural Economy, University of Alberta

Please call the Research Ethics Board at (780) 492-0302 should you have any questions regarding your rights as a research subject.

Please feel free to contact either Emily or Naomi if you have questions about how to fill out the questionnaire (contact information on previous page)

2010 Survey of Community, Environment & Quality of Life

Our survey team will be in your neighbourhood daily for the next 2 weeks. If you leave your questionnaire in your mailbox or on your doorstep today we will pick it up. We can also arrange a time for pick up. If you prefer, you can mail this questionnaire using the stamped envelope provided.

Emily Huddart Kennedy & Dr. Naomi Krogman
Department of Rural Economy
University of Alberta
515 General Services Bldg
Edmonton, AB T6G 2H1
edmontonsurvey@gmail.com

PART I – Behaviour

→ To start, we ask about your daily activities and choices in the areas of transportation, purchasing & waste, energy, food & garden, influencing others, getting involved, and shopping for 2009. Please answer by circling the number in each row that is most appropriate.

Because one goal of this survey is to understand barriers to environmental behaviour, we will ask you to briefly describe why you may or may not choose to adopt certain behaviours.

TRANSPORTATION **In 2009, <u>to avoid driving,</u> how often did members of your household…**	Never	Rarely	Sometimes	Often	Always	Not applicable
1. leave your vehicle at home when you went out?	1	2	3	4	5	9
2. walk?	1	2	3	4	5	9
3. bike?	1	2	3	4	5	9
4. use public transit?	1	2	3	4	5	9

For items #1 – 4 that your household *never or rarely* did, could you explain why?

5. How many automobiles does your household own? _____.

6. If you have at least one vehicle, could you tell us how many of your vehicles are fuel-efficient (<5.0 L/100km or 47 MPG for compact and subcompact vehicles and <7.0 L/100km or 34 MPG for full size vehicles)? _____.

7. Please estimate how many round-trip flights your household took in 2009: _____.

PURCHASING & WASTE

In 2009, how often did your household…

	Never	Rarely	Sometimes	Often	Always	Not applicable
8. pay more for products that would last a long time?	1	2	3	4	5	9
9. buy used goods?	1	2	3	4	5	9
10. reuse items (e.g., plastic bags, wrapping paper)?	1	2	3	4	5	9
11. compost organic waste (in summer)?	1	2	3	4	5	9

For items #8 – 11 that your household *never or rarely* did, could you explain why?

12. Roughly how many standard sized cans of garbage does your household throw out each week? _____.

ENERGY **In 2009, to save energy, how often did your household…**	Never	Rarely	Sometimes	Often	Always	Not applicable
13. reduce the temperature of your home?	1	2	3	4	5	9
14. turn off computers when not in use?	1	2	3	4	5	9
15. hang your laundry to dry (indoors or outdoors)?	1	2	3	4	5	9
16. reduce the temperature of your water heater (e.g., < 120 °F / 48°C)?	1	2	3	4	5	9

For items #13 - 16 that you answered *never, rarely or no*, could you explain why?

17. Does your household have a front-loading washing machine? _____.

FOOD & GARDEN **In 2009, how often did your household…**	Never	Rarely	Sometimes	Often	Always	Not applicable
18. buy locally-grown food?	1	2	3	4	5	9

19. eat food you, friends, or family grew (in summer)?	1	2	3	4	5	9
20. cook meals from scratch?	1	2	3	4	5	9
21. avoid herbicide-use on your lawn?	1	2	3	4	5	9
22. use a rain barrel to water your lawn?	1	2	3	4	5	9

For items #18 - 22 that your household *never or rarely* did, could you explain why?

GETTING INVOLVED

In 2009, how often did your household…

	Never	Rarely	Sometimes	Often	Always	Not applicable
23. volunteer for an advocacy group?	1	2	3	4	5	9
24. participate in community events?	1	2	3	4	5	9
25. use a community garden?	1	2	3	4	5	9
26. help neighbours without pay?	1	2	3	4	5	9
27. accept unpaid help from neighbours?	1	2	3	4	5	9

For items #23 - 27 that your household *never or rarely* did, could you explain why?

INFLUENCING OTHERS **In 2009, how often did your household…**	Never	Rarely	Sometimes	Often	Always	Not applicable
28. talk about environmental issues **among yourselves**?	1	2	3	4	5	9
29. talk to others about environmental issues?	1	2	3	4	5	9
30. behave in ways that show others how they could reduce their consumption?	1	2	3	4	5	9
31. actively encourage others to reduce their consumption?	1	2	3	4	5	9

For items #28 - 31 that your household *never or rarely* did, could you explain why?

SHOPPING **In 2009, how often did your household…**	Never	Rarely	Sometimes	Often	Always	Not applicable
32. go shopping for fun?	1	2	3	4	5	9
33. dispose of something fixable?	1	2	3	4	5	9
34. buy something that broke soon after?	1	2	3	4	5	9
35. buy something on impulse?	1	2	3	4	5	9
36. buy heavily-packaged products?	1	2	3	4	5	9
37. buy bottled water?	1	2	3	4	5	9

For items #32 – 37, we ask you to explain why your household *always or often* performed these activities in 2009?

MONEY, TIME & REDUCING

38. In the past 5 years, has anyone in your household voluntarily made changes in their life that resulted in your household making less money?

1 No 2 Yes → If YES, please explain:

_____

39. In the past 5 years, has anyone in your household voluntarily made changes in their life that resulted in your household having more leisure time?

1 No 2 Yes → If YES, please explain:

_____

40. In the past 5 years, did your household make any changes to significantly reduce your environmental impact?

1 No 2 Yes → If YES, could you briefly say what you changed and why?

WHAT did you change:

WHY did you change:

PART II – Neighbourhood & quality of life

This section is about your quality of life and your neighbourhood. When responding, please think about your life in the past year (2009). To start with, how many people in your neighbourhood would you say you know quite well?

- ☐ Most of the people in your neighbourhood
- ☐ Many of the people in your neighbourhood
- ☐ A few of the people in your neighbourhood
- ☐ Nobody else in your neighbourhood

Next, when choosing where to live, how important were the following, ranging from 1 = Not at all important to 5 = Very important?

	Not at all important---------- Very important				
Proximity (closeness) to work	1	2	3	4	5
Proximity to recreation facilities	1	2	3	4	5
Proximity to parks and river valley	1	2	3	4	5
Proximity to public transit	1	2	3	4	5
Proximity to shopping (including groceries)	1	2	3	4	5
Low crime rates	1	2	3	4	5
Having a large home	1	2	3	4	5
Affordability	1	2	3	4	5
Proximity to creek beds or wetlands	1	2	3	4	5

How long have you lived in this neighbourhood? .

Do you think you will be living in the same neighbourhood five years from now?

1 YES 2 NO

Please circle a number in each row to indicate whether you spend too much, just right, or not enough time on the following:

	Too much	Just right	Not enough	Not applicable
My work	1	2	3	9
Virtual contact with family (eg, internet)	1	2	3	9
Face-to-face contact with family	1	2	3	9
Virtual contact with friends	1	2	3	9
Face-to-face contact with friends	1	2	3	9
My own hobbies	1	2	3	9
Sleeping	1	2	3	9
Cooking meals from scratch	1	2	3	9
Taking part in volunteer work	1	2	3	9
Commuting	1	2	3	9
Participating in religious-affiliated groups	1	2	3	9

PART III – The economy, the environment & you

The following statements ask about your opinions on the environment, the economy, and your spending. Please circle a number in each row that corresponds to whether you SD = strongly disagree, D = disagree, are Neutral, A = agree, or SA = strongly agree.

	SD	D	Neutral	A	SA
For environmental reasons, it is important that Canadians consume less	1	2	3	4	5
It is possible to have both a strong economy and a healthy environment	1	2	3	4	5
It is satisfying to get a bargain, even if what I am buying is of low quality	1	2	3	4	5
A strong economy is more important than a healthy environment	1	2	3	4	5
I am upset when I see things wasted (i.e., food, energy, consumer goods)	1	2	3	4	5
I chose to live close to the places I need to travel to in order to minimize my impact on the environment	1	2	3	4	5
I rarely think about whether I need something before I buy it	1	2	3	4	5
Our current economic system does not allow for a healthy environment	1	2	3	4	5
I consume more than I need to	1	2	3	4	5
I only buy something if I am certain it will last a long time	1	2	3	4	5
Quality is a priority for me when buying anything	1	2	3	4	5
I feel better when I reduce how much I consume	1	2	3	4	5
I generally avoid buying things used or pre-owned	1	2	3	4	5

PART IV – Overall satisfaction

→ We are now going to ask you to rate certain areas of your life.
Please rate your feelings about them using a scale of 1 to 5 where 1 means "Very dissatisfied" and 5 means "Very satisfied":

How do you feel about…	1 = very dissatisfied; 5 = very satisfied
Your health?	
Your job or main activity?	
The way you spend your time?	
Your finances?	
Your life as a whole?	

PART V – Who you are

Finally, for purposes of comparison, we would like to know more about you and members of your household. It will be easiest if the person who filled out the majority of the survey answer these questions. Your identity and address will not be linked to your answers.

1. What is your gender?

1 Male 2 Female

2. What year were you born?

19____

3. In which country were you born?

3a. If you were born outside Canada, how long have you lived in Canada?

.

4. Do you own or rent your home?

1 Own 2 Rent

5. How many people live in your home (including yourself)?

5a. Of these people, how many are children (< 18 yrs)?

6. Do you live with a spouse or long-term partner?

1 Yes 2 No

7. Which category best describes your employment status? [Mark one box]

□ Employed full time
□ Employed part time
□ Caregiver (unpaid)
□ Student
□ Self-employed
□ Retired
□ Unemployed
□ Other [please specify]:

8. If you work or study outside the home, how do you get to your place of employment for most of the year (e.g., car, bus, bike)?

8b. Approximately how many kilometres is it to your place of employment?

---

9. If you live with a spouse or partner, which category best describes your partner's employment status? [Mark one box]

□ Employed full time
□ Employed part time
□ Caregiver (unpaid)
□ Student
□ Self-employed
□ Retired
□ Unemployed
□ Other [please specify]:

10. Which is the highest level of education that you have completed? (Mark an X in one category)

□ High school diploma or certificate
□ Apprenticeship or trades diploma or certificate
□ Non-university diploma (e.g. college, CEGEP)
□ Graduate university degree
□ Some university, not completed
□ University degree (Bachelor's)
□ Graduate university degree, not completed

11. If you live with a spouse or partner, which is the highest level of education that they have completed? (Mark an X in one category)

- □ High school diploma or certificate
- □ Apprenticeship or trades diploma or certificate
- □ Non-university diploma (e.g. college, CEGEP)
- □ Graduate university degree
- □ Some university, not completed
- □ University degree (Bachelor's)
- □ Graduate university degree, not completed

12. Which federal political party best represents your values and beliefs?

- □ Conservative Party of Canada
- □ Liberal Party of Canada
- □ New Democratic Party (NDP)
- □ Green Party of Canada
- □ None
- □ Other [please specify]:

13. Which category best describes your total household income (before taxes) in 2009?

- □ Less than $40,000
- □ $40,000 - 79,999
- □ $80,000 - 119,999
- □ $120,000 - 159,999
- □ $160,000 - 199,999
- □ $200,000 or more

14. Can you think of any other ways you could significantly improve your quality of life?

Thank you for your participation!

If we have not arranged a time to pick up your survey, you could leave it in your mailbox or on your doorstep between 4-6 pm Monday to Friday, or between 10-3 pm on Saturday before May 29. You can mail this questionnaire as well.

Please feel free to leave any comments or questions.

Appendix E: Relational Activism: Re-imagining Women's Environmental Work as Cultural Change[29]

Sara O'Shaughnessy and Emily Huddart Kennedy[30]

ABSTRACT: We introduce the term "relational activism" to call attention to the way that relationship-building work contributes to conventional activism and constitutes activism in and of itself. In so doing, we revisit Mohai's paradox – a long-standing "ironic contrast" that notes that women's environmental concern is not reflected in greater contributions to activism than men's. We position relational activism as comprising an overlooked and under-recognized dimension of 'activism' as it is traditionally defined and highlight its role in bridging the private and public spheres. Relational activism differs from conventional activism in its location, recognition, and temporal scale. To support these claims, we draw upon 26 ethnographic interviews conducted with families who strive to reduce their environmental impact.

Key Words: gender, activism, environment, maternal politics

INTRODUCTION

From "hysterical housewives" labels (Seager 1996) to "Love Your Mother" bumper stickers (Roach 1991), gender is inescapable in the discussion of environmental activism in the Western World. Rachel Carson's *Silent Spring* and images of "housewife activists" like Lois Gibbs (Bantjes and Trussler 1999: 180) were emblems of environmentalism from the 1960s through to the 1980s. Today, former US Vice President Al Gore and Canadian biologist David Suzuki are among the figureheads of the environmental movement. Indeed, the effect of gender on environmental attitudes and behaviours is a

[29]Acknowledgements: The authors wish to acknowledge funding support from the SSHRC Doctoral Fellowships program and Strategic Environmental Grants Program. We would also like to thank Dr. John Parkins and three anonymous reviewers for their valuable comments.

[30] We have adopted a convention in which the first listed author is the one who provided the majority of the theoretical framework. However, the structure and content of the paper was shared equally by the authors. Therefore, we prefer to refer to our roles as joint authors rather than as lead, or corresponding author, and second author.

major area of investigation for environmental sociologists, and has resulted in rather contradictory empirical findings: *although women are more likely to demonstrate higher concern for environmental issues, they are less likely to engage in environmental activism* (e.g., Mohai 1992; Tindall et al. 2003). To make sense of this apparent contradiction, numerous strategies have been undertaken, including analytically separating pro-environmental activism from pro-environmental behaviours that are incorporated into daily routines. Activism, within this body of literature, is presented as a public sphere activity – a realm traditionally dominated by men.

The conceptualisation of environmental activism as a public sphere activity undertaken by ecologically minded individuals, however, does not explain women's lower rates of activism[31]. Moreover, it obfuscates much of the behind-the-scenes, private sphere, and community-building work performed primarily by women that make environmental activism possible. In this article, we revisit the way in which environmental activism is typically measured, and introduce the concept of "relational activism" to better capture women's experiences with environmental activism. This term is intended to draw attention to the importance of community, networks, and communication in contributing to long-term change. We position relational activism as a form of activism precisely because of the intentionality of such behaviours: these are (often) private-sphere actions undertaken with the intent of demonstrating, encouraging, or communicating to others the tractability and importance of a behavioural commitment to the environment.

We argue that the traditional view of activism as a set of public-sphere activities is incomplete: there are myriad efforts behind the scenes that also constitute environmental activism. In contrast with traditional public-sphere activism, as measured in most environmental sociological work (e.g., attending protests, writing to politicians or newspapers, donating money for environmental causes, see Barkan 2004; Séguin et al. 1998; Tindall et al. 2003), we suggest relational activism as a long-term form of activism

[31] We use Tindall et al.'s (2003) definition of activism here: specific movement supporting activities acknowledged to be important by environmental organizations. Traditionally this includes behaviours such as attending protests, signing petitions, taking membership in an environmental group, *et cetera*.

that utilizes relationships among networks of like-minded individuals, and seeks to blur the distinction between public and private-spheres, using daily behaviours as the locus for social and environmental change. However, relational activism is not antithetical to conventional activism in its predominant conceptualization. We argue that relational activism provides important social and community support that facilitates the types of public-sphere environmental actions typically measured, while also contributing to long-term cultural change. As such, relational activism provides important insight into the contradictory findings of environmentally conscious women's participation in environmental activism.

RETHINKING ACTIVISM

Extant literature on gender differences in environmental activism and behaviours rarely provide explicit definitions of environmental activism. Most definitions have coalesced around distinctions between environmental activism and pro-environmental behaviours. For instance, Tindall et al. define activism as "specific-movement-supporting activities that are promoted by environmental organizations" and environmentally friendly behaviour as "everyday behavior that aims to conserve the environment in various ways" (2003: 910). Séguin et al. (1998: 631) add a dimension of hierarchy to their differentiation of activism from behaviours, stating,

> [e]nvironmental activists are people who intentionally engage in the most difficult ecological behaviors. They are usually members of environmental groups, are involved in fund raising campaigns or the signing of petitions, write letters to government and to policy makers, and also try to influence people's attitudes and behaviours toward the environment.

Séguin et al. further suggest that activists are distinct from nonactivists because of their commitment, hard work, autonomy and "perception of the importance of possible problems in their local environment" (1998: 646). Hunter et al. (2004) use environmental group membership, signing petitions, and participation in protests and/or demonstrations

as examples of "activist" behaviour. Many of these activities represent an urgent and short-term reaction to environmental crises that threaten the status quo. As such, this type of activism represents what we refer to as "conventional activism" throughout this text.

The notion of environmental activism as an individual endeavor is troublesome from a feminist standpoint. Nearly all studies of gender differences in environmental activism and behaviours measure *individual* actions, although many of these actions may be taken up as a *household or community* decision, which may alter how people perceive their participation. For instance, a Canadian study found that nearly one-quarter of respondents identified lack of support from household members as an important constraint on their environmental behaviour (Kennedy et al. 2009b). As the authors state, "In some cases the majority or the more powerful member of the household may assert his or her position in such a way that others feel they have no choice but to subvert their own priorities for the environment" (2009b: 154).

The most significant limitation in current conceptualizations of environmental activism and behaviour, however, is the explicit delineation of these activities along a public sphere/private sphere division. The notion that public sphere activities are more likely to be influential, difficult and impactful undergirds a tacit hierarchization of activism above pro-environmental behaviours (e.g., Séguin et al. 1998). Similarly, there is a perception that environmentally friendly behaviours are more easily incorporated into regular routines and therefore are 'easier' to undertake, but ultimately less influential.

Recently, evidence has emerged to challenge Séguin et al.'s (1998) assertions. Little et al. (2009) demonstrated that activities such as consuming local organic food substantially increase time and energy spent on domestic tasks. A recent study by Judkins and Presser (2008) found that in middle-class, heterosexual North American families, adopting eco-friendly household behaviours increased gendered inequalities in the division of labour, as women in their study were significantly more likely to take on the additional responsibilities entailed by a sustainable lifestyle. Dietz et al. (2009a) found that near-term household behaviours can result in reductions in household greenhouse gas

emissions of 20% and reductions of 7.4% for US national emissions. Furthermore, other feminist scholars have noted that private, domestic spaces like kitchens, schools and churches are important sites of information sharing and social mobilization for women, and can in fact be highly influential (Murphy 1995; Reed 2000, 2003; Ruddick 1990). The work performed primarily (though not exclusively) by women of building relationships is often undertaken in the private sphere, yet may be fundamental to enabling themselves and others to participate in the public sphere. When women do enter into more traditionally "public" arenas for activist purposes, it frequently involves the transference of skills and relationships developed in the private sphere, which Ruddick refers to as "maternal politics" (1990). This relationship-building work is often overlooked in accounts of gender differences in environmental activism.

As defined by the Merriam Webster online dictionary, activism is "a doctrine or practice that emphasizes direct vigorous action especially in support of or opposition to one side of a controversial issue." There are two features of this definition we wish to complicate: that activism necessarily involves "direct vigorous action" and that activism is controversial. What we wish to stress is firstly, that the subset of activities commonly identified as 'activism' (i.e., attending protests, public action campaigns) is in fact reliant on an overlooked and under-recognized set of activist behaviours that would not be labeled "direct action", but that we call relational activism. In this sense, relational activism can be considered to comprise "the acts behind activism". Second, we note that there is an implicit characterization of activism as existing in the public sphere, rather than the private sphere (Lubell 2002). We argue that relational activism intentionally uses the private sphere in a public way, and in this manner is able to contribute to mid- and long-term change. In addition to these points of clarification, we compare conventional activism and relational activism according to ontological views of the individual as an active agent and the relationship between activism and daily practices. We chose the term "relational" to describe these activist activities because of the way the actors explicitly reject the notion of an autonomous individual in relation to environmental change, and instead locate their sense of agency in their ability to engage with others to create new understandings of their pro-environmental behaviour as activism.

The idea that relationships have greater agency than individual actors also finds resonance in existing work on transformative politics, transformative activism, and social movement scholarship. Authors in these fields point to the importance of common values among individuals, and of the value of negotiation and compromise among networks, as a key part of a social movement (Diani 1992, 2000; Kriesberg 1992; McAdam and Paulsen 1993; Mische 2003; Passy 2003; Scott 2001). Diani, for instance, describes the social movement dynamic as a "process whereby several different actors, be they individuals, informal groups and/or organisations, come to elaborate, through either joint action and/or communication, a shared definition of themselves as being on the same side in a social conflict. By doing so, they provide meaning to otherwise unconnected protest events or symbolic antagonistic practices, and make explicit the emergence of specific conflicts and issues" (1992: 2-3). Echoing Diani, Rootes (1999: 2) places networks at the centre of his definition of environmental movements, though de-emphasizing the centrality of conflict: "environmental movements are conceived as broad networks of people and organisations engaged in collective action in the pursuit of environmental benefits."

Bourdieu's work on the habitus, as well as Haluza-DeLay (2008) and others' (Smith 2003) commentaries on ecological habitus, contribute to our understanding of how daily practices, lifestyle, and relationship building have the potential to contribute to cultural change towards sustainability. It is precisely because the women interviewed had acknowledged this potential that we believe relational activism, as we have called it, should be recognized as a necessary component of activism. Rather than identify their sense of agency in their identity as individuals, the informants stressed that their actions were dependent upon - and made more effective through - a network of like-minded individuals in their community. It is the relations that result in change, rather than the actions of any one individual. This idea has been alluded to elsewhere, notably in literature on collective action, transformative politics, and social movements. The role of relationships is central to the study and practice of collective action, though as Lubell (2002: 432) states, "Although political economists have long recognized the public good nature of environmental activism, models of individual behavior developed in

environmental studies rarely address the logic of collective action." Indeed, many findings on activism rely on survey data that measure individual activist efforts (e.g., Barkan 2004; Séguin et al. 1998; Tindall et al. 2003).

In contrast with conventional activism, which typically encompasses activities outside the daily routine, relational activism is rooted in, and sees the potential for social change in daily practices. For Bourdieu, daily practices are produced by the habitus. More explicitly, habitus is, "the product of history, produces individual and collective practices…" (Bourdieu 1977: 82). Haluza-DeLay (2008) and others (i.e., Smith 2001) have commented on the potential for environmental social movement organizations to serve as a social space that influences the habitus in order to extend the adoption of environmentally supportive behaviours. As Haluza-DeLay (2008: 205) writes, "In a Bourdieusian approach, environmental social movement organizations become the social space in which a logic of practice consistent with movement goals can be 'caught' through the informal or incidental learning that occurs as a result of participation with social movement organizations." The success or failure of such organizations' to influence individual practices is dependent upon the ecological habitus: "an orientation which privileges ecological considerations" (Haluza-DeLay 2008: 206). Relational activists have implicitly acknowledged the existence of the ecological habitus, the environmental significance of daily practices, and consequently use this as the foundation for their activist activities, focused largely on creating relationships and networks and shifting cultural norms towards sustainability.

Passy (2003) asserts that there is still a need for understanding the broad array of functions social networks play within social movements and how these functions are differentiated across individuals within these movements, and the varied meaning they hold for participants. Indeed, along with race and ethnicity (see Polletta 2005), gender is widely acknowledged as an underrepresented axis of analysis within social movements literature McAdam 1992; (Robnett 1997; Taylor 1999). Robnett's (1997) work on women's participation within the civil rights movement in the US revealed that many of the women who were excluded from formal leadership positions acted as informal

'bridge leaders', building the important emotional ties that facilitated the wider community to actively take part in the movement. However, the materiality of the daily practices that build and sustain relationships and networks have not been widely emphasized within either environmental sociology or social movement literatures. Mary Mellor (2009) and numerous other feminists have insisted that scholars recognize the social reproductive labour within the household—feeding, cleaning, carework—that physically enables what is considered 'productive' labour. In a parallel fashion, the *material dimension* of social networks and relationships that facilitate other members of their households and communities to take part in the more visible, public-sphere activism needs to be recognized in order to better understand gendered experiences of social movements.

GENDER DIFFERENCES IN ENVIRONMENTAL ACTIVISM

In addition to income levels (Duroy 2008; Jones and Dunlap 1992), age (Buttel 1979; Mohai and Twight 1987), and education level (e.g., Kalof et al. 1999; Jones and Dunlap 1992; Rokicka 2002; Zelezny et al. 2000), gender is one of the socio-demographic characteristics most often examined to explain differences with respect to environmental beliefs, values, attitudes and behaviours. Zelezny et al. (2000) noted that between 1988 and 1998, over 32 articles had been published looking at gender differences in environmentalism. Yet, studies on the effects of gender continue to elude a cohesive explanation, and more often than not, result in paradoxical findings.

Though inconsistent, empirical evidence has supported the assertion that women – particularly mothers – are more likely to display values and concern for the environment (Blocker and Eckberg 1997; Stern and Dietz 1994; Zelzeny et al. 2000). However, this greater concern has not always translated into more quantifiable environmental *action*, as a number of studies show that men are more likely to engage in environmental behaviours than women, despite demonstrating fewer environmental values and concerns (McStay and Dunlap 1983; Mitchell 1979; Mohai 1992; Tindall et al. 2003). In fact,

Mohai has referred to this curious finding that continues to befuddle environmental sociologists as "an ironic contrast" (1992: 1), which poses a major gap in environmental scholarship. Mohai's study revealed that socialization theories and structural barriers to political participation in general do not account for the discrepancies in women's environmental beliefs and actions.

Mohai's work parallels findings within wider social movement scholarship of women's comparable smaller rates of movement participation, such as McAdam's (1992) finding that women who were sympathetic to the Freedom Summer campaign (a massive voter registration campaign, which was part of the civil rights movement) in the United States were ultimately more likely than men to refrain from or quit their activist participation. While McAdam's study suggests that widespread sexual discrimination and harassment explain this discrepancy, there is little empirical evidence suggesting that these are factors in current day, North American environmental activism. An important insight from McAdam is the observation that gender-based discrimination resulted in the reproduction of traditional gender roles within the movement along a public sphere-private sphere divide (e.g., women were often relegated to cooking for the male "activists" who participated in the voter registration campaign).

Multiple studies revisiting what has become known as "Mohai's paradox" have tried to shed light on this gendered discrepancy between the rates of activism of environmentally conscious women and men. These include a study of attitudes toward forest certification programs (Ozanne et al. 1999), a comparison of male and female members of environmental organizations (Tindall et al. 2003), and a national survey of public and private environmental behaviours (Hunter et al. 2004). Ozanne et al. (1999) conclude that had Mohai "used another criterion for pro-environmental behavior, such as personal action in the market place, rather than environmental organization membership, the paradox would have been resolved" (1999: 620). Tindall et al. (2003) clarify the findings by Ozanne et al. (1999) by distinguishing between "activism" and "environmentally friendly behaviour". They compare consistent participation in behaviours that are easily incorporated into daily routines, such as "taking public transit,

recycling, or using a reusable mug" (2003: 913). Like Mohai (1992), Tindall et al.'s (2003) study concludes that women do have greater concern for the environment which manifests in daily environmentally friendly behaviours, rather than formal activism. Finally, Hunter et al. (2004) argue that a distinction between "public" (e.g., volunteering with an environmental organization) and "private" (e.g., recycling) pro-environment behaviours can provide much needed insight into Mohai's paradox. The authors find no statistically significant differences in public behaviour between men and women, and find that men are more likely to engage in private behaviours than public ones, and at a lesser rate than women (Hunter et al. 2004).

However, caring for or about the environment is not simply a personal moral disposition. As Macgregor asserts, caring as a disposition should be conceptually distinguished from "caring as a set of material practices (i.e., to take care of something or someone as a form of labor)" (2004, p.58). The assumption that both forms of care are inherently connected has informed much early ecofeminist scholarship, which led to claims that women are intrinsically closer to nature and likely to care about environmental issues. Yet, as Macgregor (2004) and others have argued, women's participation in environmental activism is a highly variegated phenomenon, with many women taking part in highly politicized activities within environmental social movements (e.g., Sandilands 1999), and other women actively protesting in opposition to environment activists (e.g., Reed 2000).

While previous studies, whether by environmental sociologists or ecofeminists, have generally suggested that women are more environmentally concerned and likelier to adopt environmentally friendly behaviours than men, the key issue within Mohai's paradox – that women who display environmental conscious attitudes are less likely to participate in environmental organizations and activism – *has not, in fact, been resolved*. By reconsidering and complicating our existing notions of activism, as well as the [false] dichotomy between public and private sphere, we aim to acknowledge the myriad ways in which women themselves understand and identify with environmental activism. To do

so we build on extant literature to construct the concept of relational activism, using excerpts from interviews conducted between June 2009 and November 2009.

METHODS

The data for this paper are drawn from the qualitative portion of a mixed-method research project undertaken by one of the authors, as part of a doctoral thesis. The broader research project involves exploratory interviews with 13 families who are actively trying to reduce their material consumption. The thrust of the interviews was to identify the practices involved in reducing consumption, the barriers to and supports for such sustainable behaviours, and the ways reducing consumption can enhance quality of life. As qualitative research, the sample is purposively and theoretically driven. The seed sample included three families, known to the research team through acquaintances, and identified as living low-impact lifestyles. Subsequent sampling followed the snowball method and was theoretically driven. For example, research questions relating to the importance of context led the researcher to locate informant families in both suburban and urban neighbourhoods. Each of the 13 families was interviewed twice; interviews were conducted with three couples, two fathers, and eight mothers. Informants have between two and five children living at home.

Although not strictly ethnographic (as the study did not involve participant observation), the interviews conducted followed ethnographic principles. By this we mean that interviews were semi-structured and unstructured (semi-structured for the first, unstructured for the follow-up), that the interview guides were designed so as to elicit information about subcultures of individuals who consciously strive to reduce their consumption, that the information obtained from respondents was often material (i.e., regarding daily practices, networks of support), and that during data analysis, there was a conscious effort to identify motivating values. The interviews lasted between 45 minutes and 90 minutes and were conducted between June 2009 and November 2009. Analysis was conducted using NVivo 8, a qualitative data organization software and followed ethnographic data analysis procedures, as described by Spradley (1979). Briefly, the

overall purpose of the analysis was to identify and describe the *unique features* of the identified subculture (those who voluntarily and significantly reduce consumption), locate the relationships among these unique features, and note how those relationships contribute to the configuration of the subculture as a whole. Each interview was transcribed verbatim, then read and coded by the primary researcher. After all interviews were coded once, the primary researcher organized the resulting themes and coded the 26 interviews a second time.

RESULTS

We use excerpts from the interviews to describe relational activism and compare it to conventional activism. The results are split into the following subsections: relational activism, relational activism for household sustainability, and the relational activism behind conventional activism. Many of these themes are overlapping, however, and the results should be read in their entirety rather than as distinct sections.

Relational Activism

Relational activism is behind-the-scenes work. Women practicing relational activism rarely make the headlines yet their work is creating social change and they are, for the most part, aware of this. Furthermore, by living lives that are distinct from the mainstream, they stand out in their neighborhoods – again, this is a conscious choice. They use the relationships they have formed in their communities as catalysts for environmental change. By choosing to be conspicuously different from what social norms would dictate, these families are quietly leading a vanguard of cultural change towards sustainability.

The first excerpt from Jamie[32], a mother of two, alludes to the fact that relational activism is a broad-based form of change that involves commitment to changing one's lifestyle and the belief that this is an important part of a general shift towards

[32] Pseudonyms are used to protect the identities of informants and individuals mentioned by informants.

sustainability. Here Jamie is responding to the question of whether individual environmental action is sufficient to address environmental problems. She replies,

> I am under no illusion that my individual actions will stop global warming, but I think the opinion that individual actions are insignificant is kind of a male perspective, that everything is sort of separate. What our family is doing is demonstrating a lifestyle that is more consistent with how people should live.

Jamie is tacitly reacting to the assumption that public and private spheres are separate and that we can create no change through personal actions. Jamie has always chosen to demonstrate her commitment in this way while other informants recounted a shift towards this relational work, consciously discerning between activism and relational activism. It is not only that relational activism builds on relationships, but that the pressure point for change is often in the emphasis on building diverse networks of support for environmental behaviour. A good example of this is Leslie, a mother of two, who tells her story of how she demonstrates her commitment to the environment. Leslie and her family do not own a car, deliberately choose to live in a small home, and frequently volunteer at the farmers' market and other environmentally-focused events. She says,

> I went through a long phase of calling myself an environmental activist, and I recently moved back from doing that sort of work. I guess I found it more valuable, instead of being with people who already agreed with me about what the problems were, to stay in my diverse community and live the best way that I could. If you are living well and are relatively happy and healthy, people will wonder why you are that way and might be inspired by that.

Leslie is deliberately placing private-sphere activities in the public sphere, for purposes of social change. Relational, like conventional activism, seeks to affect change in the face of specific environmental issues. Uniquely, relational activism has a specific and local audience. As Leslie stressed, her audience is diverse, they live in her neighbourhood, and they do not necessarily have the same principles or behaviours as

Leslie and her family. Relational activists know their audience: by virtue of the fact that such relationships exist, private sphere behaviours can come to the public sphere and influence others to, in turn, change their own private actions.

Relational activism fits within a neighborhood context. Rather than conventional activism, which is often out of sync with daily schedules and demands, relational activism requires a longer-term investment of time, but can be incorporated into daily practices. Here, an informant describes how her family contributes to sustainability in a non-conventional way,

> It turns out that our family can give a lot here and we get a lot back, just by doing what brings us joy. My husband loves bicycles and he can be…on the front porch and the neighbors come by and say, 'Oh can you help me with this?' And we also do free bike repairs once a year. In this way we…get more people to ride. If we help them fix their bicycles they'll ride more.

Relational activists strive to form relationships in their communities with the goal of reducing barriers to sustainable behaviour. In particular, there is an emphasis on quotidian behaviours (relating back to the ecological habitus). Repairing bikes is not conventional activism but as intentional behaviour used to get more people out of their cars and on their bikes, and to build relationships in one's local community, this form of relational activism can have environmentally and socially significant consequences.

Relational Activism for Household Sustainability

The household is considered to be part of the private sphere, suggesting that there is little opportunity for affecting change in the polis. Yet, just as television advertisements and tele-commuting are allowing the public sphere to infiltrate private households, many relational activists are re-fashioning the boundaries of these spheres to make households a space for information sharing and social change. In other words, relational activists can use lifestyles as a part of their activism. For example, below, Jane, mother of two,

describes a canning workshop. After the interviewer asked her to provide an example of how she Jane describes a canning workshop she hosted in her home:

> I was the canning expert amongst the others. It started when [a group of women in the neighbourhood] started talking about how many tomatoes were ripening…we ended up having dinner together afterwards and it was really fun.

This seemingly simple example would not typically be considered "activism". However, Jane had a deliberate goal of making it easier for others to lessen the environmental impact of daily practices (eating) and used her home as the platform for this action.

Relational activism often uses the home as a "show-home of sustainability". In this way, these families are helping to shift norms away from heavily-consumptive patterns of living by showing how low-consumptive choices can be attractive and pleasurable. The home is used as a site to lead by example – a key component of relational activism. Importantly, there is recognition that people pay attention to how others' homes are furnished and that there lies an opportunity for change in this social truth. Below, Karen, a mother of five, describes explicitly the opportunity for change inherent in visibly demonstrating – rather than advocating – one's daily practices, and practicing what one preaches.

> I realized you can have all the opinions in the world you want but it's not going to change anyone else's mind. You have to lead by example. That's really influential in terms of the way I do things. I am conscious of the fact that I am modeling for others.

Karen is aware that she has the ability to change others' daily practices through visibly modeling her own. She later elaborated to say that after becoming more political in her involvement with local foods, she is now recognized by people she does not know. She stresses that for her this means she has an even greater capacity to effect change.

The Relational Activism behind Conventional Activism

Central to the definition of relational activism is that this is behind-the-scenes work that is nearly always called upon in the event of conventional activism involving more than one person (e.g., a protest rather than writing to a newspaper). More explicitly, we argue that when women form networks of individuals who can be called upon to engage in conventional activism, the very act of forming and maintaining a network constitutes relational activism. Below we use interview excerpts to describe the importance of "the acts behind activism".

We ask Karen – who is active in community-organizing – what she considers as an effective way to encourage individuals to adopt environmental practices into their daily lives. She emphasizes the need for a *relational* approach, clearly stating her opinion that this is a more effective – and less common – way to promote change.

> I think first of all, [change] needs to be relational. So rather than writing to your MP, going to your MP's office will make a much more significant impact… The relational model starts with sitting down and talking to people about what their hopes are, what their pressures are and gradually you can sort of tease out common stories and then it's about telling our stories. So then you can begin to build community, which is a rare thing these days, we have lots of institutions but we don't have a lot of community.

Later, Karen expands on this, highlighting the relationships between relational activism and conventional activism (in this case, protesting City Council's proposed legislature on development):

> If you're going to make change on the grand scale, I do think you have to eventually get to a point of actually working with other people because I mean, one person is one person… And it really is true that it doesn't take a lot of people if the relationships and the passion are strong and they're committed. But they do have to be connected and they do have to have a common vision… And once someone is able to sit down with a group of other people and discover that they share similar pressures and they share

> similar hopes, they then begin to see themselves as change makers and they'll go and meet with their councilors and they'll call up their friends and say, 'Come out to City Council.' And that's how you get five hundred people in council chambers - by actually building those relationships.

As demonstrated in the above quotation, participation in conventional activism was not absent from the households of the women interviewed. In many cases, women's relationship-building skills and willingness to take on high levels of community responsibilities facilitated the participation of other members of their households and communities to take part in conventional activism.

We use the quotations below to posit "maternal politics" as a form of relational activism. Maternal politics makes use of women's roles as caretakers and transfers this role to the political sphere (Murphy 1995; Ruddick 1990). We argue that maternal politics is a form of relational activism. Through their relationships, women can lobby for and help to create the change they want to see for their children's (and others') future. Below, Jane describes how she seeks to make political change through her friendship with a local politician. These excerpts call attention to one of the myriad ways in which women use intimate relationships not only to communicate ideas and encourage pro-environmental behaviours, but also to enact change at a political level.

> I told Eva to talk to the preeminent solar guy in Edmonton who's got all kinds of ideas about what needs to be done. She set up a meeting with him and now she's an expert on all of those things. Just little things like that have made a difference. So I've been telling her lately, 'You know local food is a really important issue. I hear them talking about it in the city but you're never talking about it in the province so whenever you get a chance you should be talking about local food.'

Not all contributions to a political campaign are quantifiable, visible or acknowledged. Below, we provide another example of one mother babysitting the children of a successful campaigner for political office. This act of relational activism is actually nested amongst the effects of previous acts of relational activism. Mothers

wanting to create a social, public space for their children to play volunteered to form a playgroup. Building on these relationships, this woman explains how her connections to the political campaign grew out of her involvement with the playgroup,

> [After the successful campaign] there was a big victory party, and we were home with [the politician's] kids… Actually, there are a lot of people that we met through that very first baby group who also were involved in [the campaign]. So you would go into the volunteer office [for the campaign] and there would be five or six people that you knew anyway and so that's kind of cool.

We have used the interviews to more explicitly define the concept of relational activism, showing how this unique form of activism is related to environmental sustainability and how it supports conventional activism. We argue that conventional activism is in fact only one part of activism, and that the overlooked component could be described as relational activism. For example, we show how conventional activism relies heavily on daily practices structured around the household in order to be successful, even when these practices are not themselves typically considered "activist" behaviours. We also show that in bringing the private sphere to the public, these daily, materialist practices can come to comprise an ecological habitus. Finally, we show that conventional activism also relies on the intentional relationship-building work designed to create networks of support for conventional environmental activism.

DISCUSSION

We advance the concept of relational activism as a form of activism that is overlooked and under-recognized. In contrast with conventional activism, we suggest relational activism as a long-term form of activism. However, relational activism is not antithetical to conventional activism in its predominant conceptualization. We argue that relational activism provides important social and community support that facilitates public-sphere environmental actions *and* contributes to long-term cultural change. As such, relational activism provides important insight into the contradictory findings of women's participation in environmental activism. As our results demonstrate, using women's

experiences and perspectives to widen the scope of what is considered environmental activism helps to shed light on Mohai's paradox. Eco-conscious women in our study are not, by their own accounts, less likely to take active steps to protect the environment and influence the behaviours and beliefs of others. Rather, they are actively and consciously choosing the form of activism – in this case relational activism – that aligns most closely to their environmental values and allows them to maximize their impacts. In summary, there are three key distinctions between conventional activism and relational activism: relational activism conceives of the individual as a member of a community; relational activism uses daily practices to change norms of high-consumption; and third, relational activism uses the private sphere for public purposes.

Relational activism locates agency in the collective, and uses relationships as the locus for change. Describing maternal politics, Abrahams explains, "women's community participation, not necessarily tied to social movements, constitutes an often overlooked location where collective identities emerge" (1996: 791). Most importantly, relational activism is not individuals acting atomistically to save the environment: they see themselves as acting as a collective, and are therefore potentially more accountable to, and have more influence upon each other. There exists some doubt as to the efficacy of households to assist in constructing a sustainable society (Monbiot 2007). Indeed, individuals acting alone will likely have little impact if they are not affecting and affected by others. This is where relational activism becomes extremely relevant: the mothers interviewed here are demonstrating ways that sustainable living can be tractable, pleasurable, and meaningful – both socially and environmentally. As such, they are shifting cultural norms away from high-consumptive lives and towards "rich lives, instead of lives of riches" (Leiserowitz and Fernandez 2007: 78). The household is the site of many of our daily activities. When outsiders enter and leave our homes, informants argued, there is the potential for these guests to be made aware of practices of which they were previously unaware. They may act as "pollinators", shifting norms slowly such that practices like using a rain barrel, canning food, and living without a car can come to be seen as being as commonplace as recycling and using cloth bags. Social norms strongly shape household daily practices (Poortinga et al. 2004), thus

demonstrating ways that low-impact living can fit within a household's existing practices with no adverse effects on well-being represents a potentially powerful force of change (Dietz et al. 2009b). Recycling and using cloth bags are now fairly widespread. For illustrative purposes, we speculate that perhaps homes that were early adopters of recycling and using cloth bags, and intentionally made these choices public by using their networks of family, friends and acquaintances, played a role in bringing such practices into the sphere of normality. We would describe such individuals as "relational activists".

Haluza-DeLay (2008: 213) argues that, "An alternative logic of practice—that of ecologically sound lives—will need to be creative and explicit, since it appears illogical to the dominant social field's existing logics. In their efforts to rename the social reality, insurgent social movements must develop this reflexive analysis." To do so he argues, the environmental movement needs to communicate specific information on environmentally sustainable living, critique the social structures that inhibit such lifestyles, and finally, describe how the social field resists "the codes and internalization of an environmental praxis" (2008: 214). The informants in this study provide examples of environmentally sustainable lifestyles through their show-homes of sustainability, and make this display more than identity-formation (Douglas and Isherwood 1979; McCracken 1986) and status-depiction (de Botton 2004; Veblen 1994 [1899]). They do so by locating their sense of agency as part of a group, rather than as autonomous agents. We see conventional activism as an effective means by which to accomplish Haluza-DeLay's second point: critiquing inhibitive social structures.

Our study challenges the hierarchization of environmental conventional activism over environmental behaviours posited by Séguin et al. (1998), who suggested conventional activism requires more commitment and is ultimately more impactful. The informants in our study articulate their transition to relational activism as a conscious choice to become more committed and involved with environmental change. In fact, a number of informants cited disenchantment with the results of conventional activism, such as letter writing and partaking in protests. We should note that there are some limitations with the data presented here. Given the small number of people interviewed,

we do not seek to generalize our findings to the population level. Rather, it is our hope that this exploratory research will, to a certain extent, reorient environmental sociologists in particular, to consider the more feminine work of relationship building. When relationships are forged and maintained as part of one's commitment to facilitate a shift to sustainability, we argue, this relational work should be considered to constitute activism.

We have excluded a discussion of power and politics in this paper. This is not to say that these are not relevant to the topic, in fact both likely play a large role in determining the success or failure of relational activism. Conducting interviews in urban and suburban areas brought to the foreground the effect that structure has on daily practices. In the central area, where there was a critical mass of like-minded individuals, a supportive Member of Parliament and Member of the Legislative Assembly, informants felt empowered to influence others in their neighbourhood. By contrast, residents of the suburban area felt overwhelmed by the influx of big-box retail and culture of consumption. One participant even moved over the course of this project, because she had concerns about raising her school-age children in a culture of excess. In brief, this is to say that relational activism draws on the potential for greater agency among networks of individuals with common values (as opposed to individuals acting alone). However, there are still structural barriers that limit the extent to which such networks can form and have influence on households, policy, and neighbourhood structure.

CONCLUSION

We argue that there is a feature of activism that is missing from current accounts of activism – and that this is a gendered feature. Relating to the concept of ecological habitus and the construction of meaning within social relationships, we use the term relational activism to describe a set of activities that we believe are of primary importance to the environmental movement (and other social movements not discussed here). The relational work that is taking place largely unseen and unrecognized plays a

role in mitigating environmental crises and bettering our ability to respond. As climate change exacerbates existing environmental challenges such as drought, flooding, fire, and loss of biodiversity, societies need strong communities that can react effectively. We believe that relational activism is needed to ensure resilient and sustainable communities exist – as well as to sustain conventional activism. specifically, we point to the "acts behind conventional activism", showing how some women who are strongly concerned with the environment express this concern by using their household as a "show-home for sustainability", by supporting others' endeavours in conventional activism, and by a fostering long-term cultural shift towards low-impact living. While relational activism is not limited to women, this study speaks to the methodological importance of starting from different standpoints to enrich our understandings of environmental activism.

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