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**Place and Food: A Relational Analysis of Personal Food  
Environments, Meanings of Place and Diet Quality**

By

**Ellen Desjardins**

Bachelor of Science, University of British Columbia, 1977

Master of Health Science, University of Toronto, 1986

**Dissertation**

Submitted to the Department of Geography and Environmental Studies  
in partial fulfilment of the requirements for

Doctor of Philosophy

Wilfrid Laurier University

Waterloo, Ontario, Canada

2010

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## ABSTRACT

This study investigates the relational layers of meanings that people experience at places in their food environment, and how individuals express a sense of place through their collective interactions with, and understandings of, food places. It also explores the patterns of difference among these meanings of place and sense of place in terms of their potential association with dietary quality. The context of this inquiry was two-fold: first, the need identified by several population health researchers and to re-imagine place as relational and include it in the study of behavioural responses to the changing food environment; and secondly, my interest in examining how existing theories of place and sense of place can help explicate people-place-food interactions, a hitherto untested application. Methodologically, this study follows a mixed-methods approach, and is based on semi-structured interviews with a diverse sample of inner-city residents of Waterloo, Ontario. To focus on individuals' interactions with their food environment, attention is centred on the set of places that they choose to visit routinely to buy food or eat out: a hypothetical construct termed their "personal food environment" (PFE). The mapping of the PFE at each interview became an elicitation tool to verbally draw out the subjective, social and spatial meanings embedded in each place. Analysis with grounded theory also revealed the roles that food plays in shaping facets of personal sense of place, including feelings of belonging or alienation, active involvement and impulsiveness, and, for some people, a sense of connectedness on a global and/or local scale. A subset of these meanings of place and places was reflected in dietary behaviour, as measured by the Canadian Healthy Eating Index, and suggested four place-diet links. The interconnected conceptual and empirical qualities of place and food that emerged from this study are summarized in a conceptual framework. They represent parameters of the PFE that could be tested, defined and validated for use in future research. The findings of this dissertation suggest the need for similar studies with different demographic and geographic groups, and will consequently be of interest to theorists of place and health as well as to planners, food advocates and health professionals to inform programs and policy.

## Acknowledgements

I dedicate this thesis to my family: my husband, Michel, and my two sons, Adrien and Simon. All three of you encouraged me from the beginning, supported me wholeheartedly throughout the entire journey, and gave me sage advice and reassurance when I needed it. Thank you...for all your gentle inquiries and understanding, long phone calls from across the ocean, sense of humour, countless cups of coffee, chocolate and celebratory spirit, and above all, your listening and caring.

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I am grateful for the friendship of fellow doctoral students Jessica Wegener, Erin Hobin and Leia Minaker, and also to my longterm friend and colleague Fiona Yeudall for inspiring confidence and helping me see the lighter side of things. I appreciate the assistance of Nina Bailey-Dick for letting me recruit half of my participants from her local buying club. I thank all 44 residents of uptown Waterloo who participated in my study.

My first ethnographic research on food security with Cathy Campbell at the University of Toronto in 1987 was ground-breaking for me; without that experience, I would likely not have done this work all these years later.

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# **Chapter 1: Overview and conceptual framework**

## **1.1 Introduction**

This study investigates the relational layers of meanings that people experience at places in their food environment, and how individuals express a sense of place through their collective interactions with, and understandings of, food places. It also explores the patterns of difference among these meanings of place and sense of place in terms of their apparent association with dietary quality.

This study examines how a focus on meanings of place can help elucidate people's interactions with their food environment, and conversely, how a focus on food can help elucidate how people think about place. *Place* as a basic geographic concept has been variously understood and richly debated; it can be seen as relationally constituted in that "it connects meaning, nature, social relations and agency" (Sack 1992:207). Therein lies its value: place adds an essential dimension to questions of human behaviour; and deconstructing place as it is described by individuals becomes a conceptual tool to explore its meanings.

### ***a. Research questions***

My main objective for this study was to develop a conceptual framework that delineates key categories of place meanings based on people's routine interactions with the food environment, and that suggests linkages of these place meanings to diet quality. For the development of this framework, I posed four research questions to be addressed in an exploratory way. First, what relational meanings are embedded within individuals'

interactions with the food places they routinely visit? Secondly, what roles does food play in shaping facets of personal sense of place? Thirdly, what patterns of difference exist among (a) the meanings people ascribe to food places and (b) aspects of sense of place with respect to food? Fourthly, do any meanings of place or aspects of sense of place seem to be associated with dietary quality? To answer these questions, I used a methodology that combined quantitative and qualitative information—partly to maximize the possibility of obtaining data that could suggest meaningful associations, and partly because some components of interest were quantifiable while others were best expressed through narrative.

***b. Key concepts***

In this introductory chapter I present the objectives and context of my dissertation. I set the stage here by introducing key terms that I then later explicate and build upon. My investigation centres on how *place* is individually conceptualized and how place-making can come from everyday lived experience with respect to food. I use the word place as a portion of geographic space, which is more universal, abstract and empirically-defined (Johnston 2000:582). Place, from my viewpoint in this study, is subjectively-determined, unbounded and non-static, but still definable in terms of the meanings that arise from an individual's interactions at the places that they routinely visit. Relph (2008a), building on the philosophy of Malpas (1999), has underscored the distinction between *place* and *places* as well as their interconnectedness:

Place is an abstraction from the specificity of the places we encounter, but even in its abstractness it always implies specificity. Conversely, it is only through the specificity of places that the fundamentally ontological character of place is manifest (36).

With this view of place and experience as mutually constitutive, I have termed the collective array of places that a person routinely visits to buy food the *personal food environment* (PFE), a construct that I use as a tool for collecting data. The PFE is a subset of places that an individual has chosen from among all the places accessible to them in the food-related *built environment* (e.g. grocery and specialty food stores, markets, cafeterias, restaurants, pubs, street food stands, vending machines, take-out places, farm stores, CSA<sup>1</sup> programs, buying clubs and food sections in non-food stores). The PFE is described through personal meanings of place; it can also be mapped and measured within a given time frame.

As well, I explore personal *sense of place* with respect to food, which is multifaceted and more difficult to define; but which can be explored through the *types* of interactions an individual has with his/her PFE. These concepts are graphically presented in Figure 1.4, the Conceptual Framework for this study.

### ***c. Situating this study***

The above questions originate from my long term experience as a public health nutritionist, having worked with multi-cultural and low income population groups, and having participated in studies about the food system at local and national levels aimed at understanding the broader contexts of food production and consumption. Several of my past activities contributed to the context in which I imagined the present study: conducting multiple focus groups with food system stakeholders, research on local food

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<sup>1</sup> Community Supported Agriculture, or programs where members pay a local farmer in advance and receive regular (usually weekly) supplies of produce from the farm throughout the growing season.

production, teaching peer food educators and co-chairing a local Roundtable that aims to influence food policy. I approached my research on place and food with the help of dietary analysis skills, past experience with ethnographic interviews, and awareness of the changing local food environment. With this background, I was positioned to take on a research project that interrelates place and food; and I was committed to base my findings on the voices and experience of residents. I was also in a position to partner place-based data with rigorous dietary data, something which other studies have rarely incorporated.

Programs and policies to improve population health are based on knowledge of people's behaviour in the context of the urban or rural environments where they live and work. However, strategies for enhancing community food access and optimizing dietary behaviour have reached a stalemate because there is insufficient information about where (and why) people procure food within a food environment that has changed radically over the past decade.<sup>2</sup> The current dominant assumption is that the food-related built environment shapes what people eat, but research evidence in this area is conflicting, as I discuss later. I seek to contribute to the area of inquiry about place, people, food and health within the field of human geography, by applying methods and concepts from that discipline. I am also interested in developing and testing methodologies in human geography that can elucidate new ways of understanding place and sense of place through the lens of food. In other words, I have noted a gap in knowledge from practical experience in the field that may benefit from a new approach intersecting human

---

<sup>2</sup> Two major changes in the food environment are notable: (a) the continuing advent of the so-called "obesogenic" environment, which suggests that the ubiquitous availability of highly-processed food leads to overeating and weight gain (Swinburn et al. 1999) ; and (b) the increasing availability and popularity of locally-produced foods, including seasonal fresh produce and other foods throughout the year.

geography, food and nutrition. It is for this reason that I frequently refer to studies related to health in this dissertation.

#### ***d. Gaps in research***

Beyond these practical issues, gaps in geographical theory and methodology have been noted by scholars in various fields, indicating that research studies on health and place have encountered constraints in applying older concepts to current questions. A recent commentary in a preventive medicine journal noted that “one of the weakest theoretical areas of current practice in health and environment research is the conceptualization of place” (Matthews 2008: 257). Similarly, an editorial in a Canadian public health journal pointed out that:

On the one hand, we all experience various and simultaneous influences of “place” upon health through our relationships with people we encounter in our everyday lives...; the social context of these encounters and the meanings we make of them... On the other hand, our abilities to empirically measure such effects are severely limited by static, cross-sectional data sources...that lack the dynamic and relational qualities of the phenomenon we seek to understand (Potvin and Hayes 2007:S6).

Kearns and Moon (2002), both involved in the origin of the journal *Health and Place* in 1995, argued that “awareness of place as a socially constructed and complex phenomenon” is key to health geography, and that attentiveness to the voices of researched people is needed as part of methodological pluralism (610). These authors observed, however, that in spite of the recognition of this view of place, it is still “neither unproblematic nor coherently applied,” as “there has been a tendency to reduce place to space and equate it to the ecological [and] the aggregate” (612). They identified as a gap the continuing tendency in current studies “to see the individual not as a person but as an



observation” (613).<sup>3</sup> Macintyre et al. (2002) noted the sizeable and growing body of research seeking to measure *place effects* on health, and cautioned that “conflicting evidence about the extent and magnitude of area effects on health may be due to differing conceptualisations...of area effects, and in particular to differences in certain features of individuals or local areas” (135). This situation may be especially true for the composition of the food environment, individual use of that environment, and food consumption, which are subject to major variation and, I would argue, require at least initial investigation with qualitative methods.

In terms of spatial considerations, the common use of measures based on proximity to predict access by individuals to neighbourhood resources has been questioned (Weber and Kwan 2003; Morland and Filomena 2008; Townsend and Lake 2009; Feng et al. 2010), because people typically access places that are both nearby and further away, they use different modes of transportation, and they differ in their perceptions of what is near and far. Thus, what appear to be needed are new or revised conceptualizations of place and methods that take into account the realities of human behaviour, and that can capture the complex interrelations between people and place.

A mixed methods approach is useful to address, in an exploratory way, some of the identified gaps. The incorporation of qualitative with quantitative data can help reveal the missing relational qualities identified by Potvin and Hayes above. I discuss this mixed methods approach in more detail later in this chapter. My own study, for example,

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<sup>3</sup> This tendency towards analysis at the population level coincided in Canada with the dominant public health paradigm of social and environmental determinants of health, which replaced the previous emphasis on health through individual lifestyle behaviour (Epp 1986).

revolves around *places* in addition to *place*, as mentioned previously. With respect to places, quantitative data were helpful for a number of reasons: to enable an overview of the range of places that people visited, to enable an initial comparative analysis, and to set a baseline for further studies. As well, the dietary component of this study was based on a quantitative assessment. To determine meanings of place, on the other hand, I used a semi-structured interview technique to understand the experiential aspects of place—at food places—from the participants' points of view.

Dyck (1999) has argued that qualitative methods are useful as more than just a reconnaissance step to determine key issues in advance of a quantitative data-gathering process. Ethnographic studies or in-depth interviews have the potential to turn abstract subjects into a meaningful exposé of personal urban spaces, or to turn everyday mundane activities into categories of meanings of place, as shown by her health-related studies of new immigrants in Canada (Dyck 2005). For her, such analysis of household activities can provide “a methodological entry point to theorising the operation of processes at various scales” (234), since it can reveal and bring together meanings from local, regional and global levels. This sense of connectedness at a distance can also be applied to meanings of food and food buying, as my own analysis has revealed.

*Food places* can be a unique lens through which to look at meanings of place because human actions, interactions and feelings at these locales are an essential part of everyday life for most adults, and encapsulate the heterogeneity within a community. Food places are social hubs within the built environment that collectively create a sense of place for individuals. Health outcomes of food buying, and by extension the use of food places, are measurable in the short term through diet quality, and in the long term,

through health. A changing food environment that offers an ever-increasing number of choices in terms of places to buy food and types of food, leads to variation in meanings, spatial patterns and diet quality among residents of a particular neighbourhood.

In spite of these research opportunities, past conceptualizations of place and sense of place have rarely used the topic of food buying as a place-based activity for deconstructing place meanings. Research done in France in the 1970s by de Certeau (1984 and 1998) was among the earliest to describe spaces of everyday domestic food preparation and consumption as a meaningful part of urban society. As globally-sourced foods became ubiquitous on the market, Cook and Crang (1996) argued that place could be constructed symbolically through consuming foods from other countries or regions. Since then, a burgeoning array of literature has centred around socio-cultural food issues and the political economy of food; but only a few studies have dealt specifically with deconstructing meanings of place with respect to food (Lockie 2001; Jackson et al. 2006; Feagan 2007; Cannuscio 2010). These studies will be discussed in Section 1.2c of this chapter, and others of interest are brought in throughout Chapters 3, 4 and 5.

## **1.2 Conceptualization of place**

This section starts with an overview of ontological perspectives that I took into consideration when planning my study, and that informed my work. I then show how the standpoint that I chose for my study was linked with the mix of methods that I used. What follows is a discussion about how my focus on food places gives this study value, and how it led to the development of the concept of the Personal Food Environment.

### *a. Ontological underpinnings*

The pursuit of a particular conceptualization of place that exposes (and interrelates) key elements of a certain slice of everyday life, as I am doing, requires drawing upon existing theories of place as an ontological foundation for primary data collection and its intended analysis. These theories are what I discuss in this section, focussing in on the concept that place is a human construct based on human agency and meaning, and as such can serve as the basis for inquiry. Ultimately, the search for ways to explore the meanings of place becomes not a search for an ontological essence that supersedes previous incarnations, but an openness to re-visit and re-imagine the ways in which place can become a useful vantage point in studies about current issues.

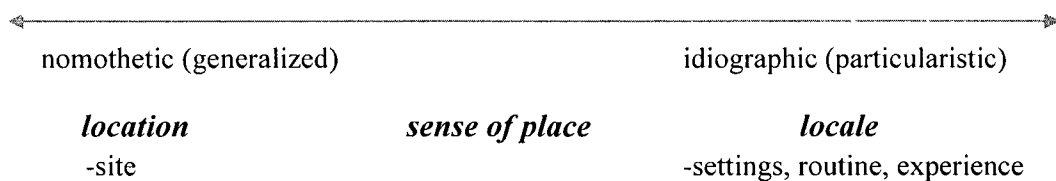
Extensive academic debates within geography and other disciplines have centred around the validity of objective or empirically measurable space, social space and subjective space/place. Various paradigms of place have emerged over time, often in reaction and opposition to each other, but also attempting to compromise between different viewpoints.

Major developments in human geography occurred as part of the cultural turn around the 1970s, reflecting a richer and more complex understanding of “geographical imaginations” (Gregory 1994; Claval and Entrikin 2004:46). This turn led to, and resulted from, a broadening of methods with which to examine the concept of place and its meanings. Many geographers argued that “the theoretical reduction of place to location in space” could not effectively capture place as a component of everyday human life. The emphasis on objectivity in research, human geographers felt, comes “at the cost of losing

many of those ‘dense-textured facts of experience’ that contribute to the individuals’ understanding of place” (Entrikin 1991a:59).

The entrance of social theory into human geography starting in the 1980s tended to sideline the concept of place, discarding both positivist and humanist views of it, and replacing it with discourse around *space* and social processes (Harvey 1993; Massey 1993; Mansvelt 2005; Murdoch 2006; Amedeo et al. 2009). As Sack pointed out earlier, a structuralist view has indeed remained the more normative one, “borne of the general impulse to transcend ourselves, and making the personal perspective seem idiosyncratic” (Sack 1992:34-35).

Nevertheless, ontological debates in human geography continued, and paradigms emerged that were more inclusive of different viewpoints. For example, Agnew (1993:263) introduced three meanings or dimensions of geographical place or space that fit along a continuum from the nomothetic (generalized) to the idiographic (particularistic). These were *location* (a site in space where an activity or object is located), *sense of place* (identification with a place engendered by living in it) and *locale* (the settings where everyday routine interactions happen). Agnew’s characterization illustrates a view on relationality of place as a construct; he also insisted that space and place were complementary and non-hierarchical rather than mutually exclusive (Agnew and Duncan 1989:2; Agnew 2005:89).



There is currently a growing interest in complementing research that measures characteristics of place empirically, in standardized ways, with methodologies that deconstruct place through various lenses, implying that there are multiple *relational* ways of explicating it (Cummins et al. 2007; Patychuk 2007). This interest stems from the recognition that place is more than physical context but is lived and created by people, both individually and collectively. I will now turn to the relational paradigm, which is itself subject to diverse viewpoints and imaginations.

### **i. Place is a human construct with relational dimensions**

I understand place in this study as a human construct. This makes it relational by nature rather than one-dimensional; it is space made meaningful through a combination of social interactions, personal senses and spatial attributes or perceptions.

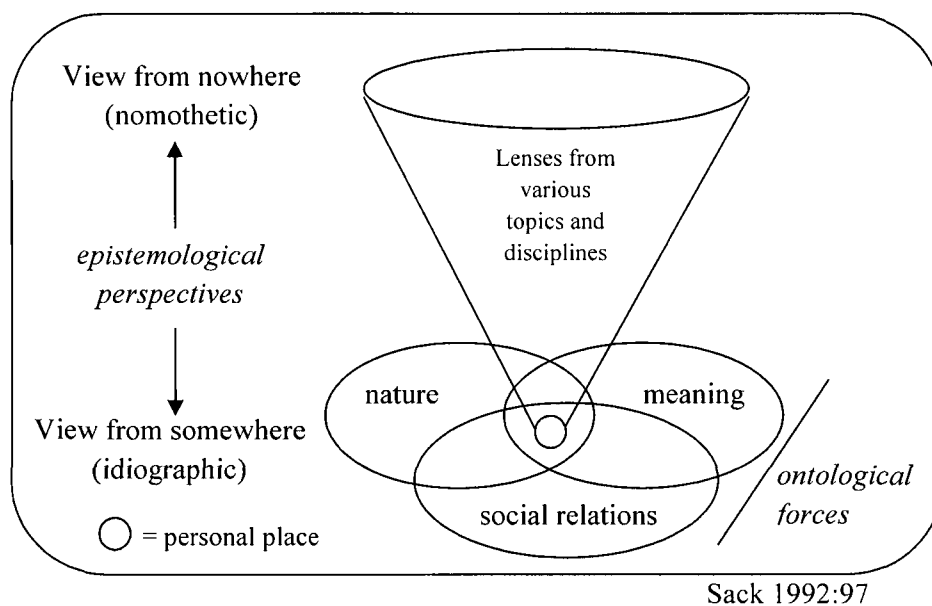
*Place as a human construct with relationality means that:*

- place is characterized by multiple layers of meaning;
- place is constructed and reproduced through routine interaction of individuals;
- distance between places is expressed in socio-relational as well as empirically-measurable ways;
- individual meanings of place are fluid and change with time as aspects of the built environment change and as people change in their social circumstances, mobility, knowledge and awareness;
- with heightened regional and global awareness, individuals can experience connectedness with place imagined at a distance.

Sack's model (Figure 1.1 below) offers an entry point into this discussion. It illustrates his graphical view of relationality, which recognizes, ontologically, the combined influence of social interactions, personal meaning and "nature" on the meaning of place (Sack 1992:97). The meanings of place, in turn, are connected with epistemological options: these are visualized as place on a continuum (inverse cone)

ranging from the subjective/particular view to the objective/ abstract/ universal view. The methodologies that would apply at each end of this continuum are different, but according to Sack they can be viewed as complementary rather than oppositional. They are all seen as related perspectives that illuminate geographical experience. Sack applied this model by examining place through the lens of consumption, which he argued is a “place-creating” and “place-altering” act.

**Figure 1.1 Sack’s relational geographical framework of place**



Other influential theorists have varied widely in their perspectives on place, as the following brief summaries show, illustrating the relationality of human geography as a discipline, adaptable to ever-changing global realities of place and space.

Entrikin (1991a) aimed to bridge the dualistic quality of place, or the tension between a “decentered universalism and a centered particularism” (2). Similar to Sack, his humanist theory of the *betweenness of place* characterized it as a point of view—

ranging from an individual's sense of being part of the environment to a detached perspective that is separate from the environment, when place becomes location (Entrikin 1991b:12-13). He viewed place, as Tuan did (1977:7), as both a center of meaning and the external context of our actions, a mixture of relatively subjective and relatively objective elements.

Harvey, in contrast, is an example of a social constructivist who believes that place is constructed solely from social structure and not personal agency (Cresswell 2004:29). According to Harvey, the relational notion of space-time means that "external influences" (like the spaces of social and material life) become "internalized" into specific processes (like politics) over time (Harvey 2006:123-28). Harvey espoused Lefebvre's triad of relational dimensions that are involved in the "production of space" (Lefebvre 1991)—*representations of space* (conceived space or urban form), *representational space* (lived space through symbolic values, which is dominated, passively-experienced space) and *spatial practice* (perceived space or the ways that spaces are used, i.e. production, reproduction, social formation) (Dear and Flusty 2002:140-141; Goonewardena et al. 2008:269-271). Soja (1996) modified Lefebvre's three-dimensional conception of socio-spatial relationality as first space (objective, physical space or the built environment), second space (subjective, imagined or perceived space) and third space (lived, practiced space). Relational place or space, then, has been theorized with simultaneous dimensions that tend to be variations on spatial, social and/or subjective.

Massey, also with a social perspective, redefined relational space differently, through a *post*-structuralist lens: she views it as uncompartimentalized (unlike the preceding theorists), and more a "sphere of the possibility of multiplicity" (Murdoch



2006:20). Place becomes, for her, like an event which is a node of continuously intersecting relations: “a unique coming together of trajectories” (Massey 2005:140-1). The “throwntogetherness” of these relations/events means that negotiations and *inventiveness* must always occur, rather than reliance on established social rules (140-1). In relational space she pictures the global and the local as mutually constitutive, conceptually creating a set of connections that she calls a “global sense of place” (Massey 1997<sup>4</sup>). Massey referred to this sense of place as “extroverted” because it includes “a consciousness of its links with the wider world” (322). This perspective fits, for example, with Murdoch’s post-structuralist analysis of the slow food movement, which he sees as constructed by “attentive and engaged consumers” (Murdoch 2006:176), suggesting that “modern consumers may be starting to acquire a *topological sensibility* so that they routinely look ‘beyond’ the products to the complex relations that comprise economies, cultures and ecologies of production and consumption” (181-82, my emphasis). This view of place and consumers’ changing perspective of products in terms of local/global connectedness is relevant to my interpretation of qualitative data in Chapter 4, as it pertains to sense of place.

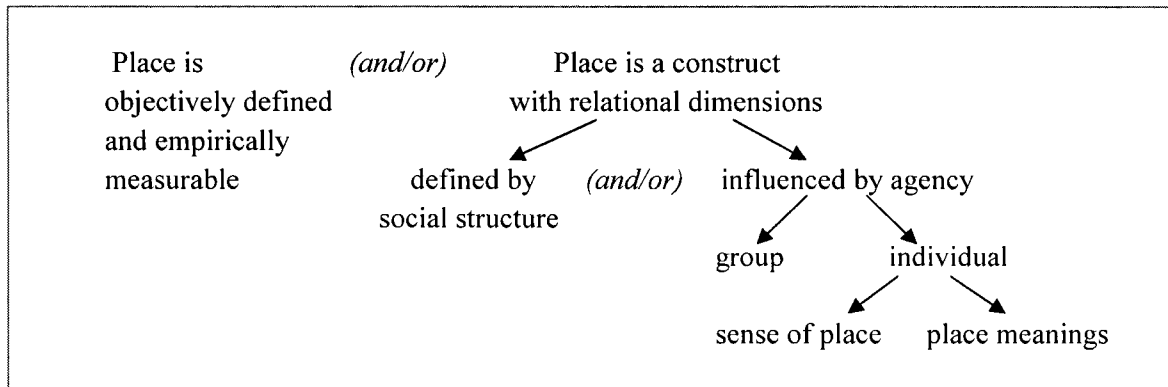
A significant ontological characterization of place emerges here concerning the nature of how place can be constructed, and in what sense this is relational. The simple schematic depiction in Figure 1.2 highlights the key distinguishing points between various theoretical conceptualizations of place. Clarifying these distinctions led me to

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<sup>4</sup> I cite Massey’s seminal article “A Global Sense of Place” from the reprint in Barnes and Gregory (1997) *Reading Human Geography*, pp. 315-23, because it is easier to access. The original appeared in *Marxism Today*, June 1991:24-29. [http://www.aughty.org/pdf/global\\_sense\\_place.pdf](http://www.aughty.org/pdf/global_sense_place.pdf)

pursue a thread that several theorists have drawn attention to, namely the spaces of change at the agency level, where place is—subtly or dramatically—reinvented.

**Figure 1.2 Theoretical conceptualizations of place**



Massey, cited above, pointed to the uniqueness of the interpersonal and interspatial connections that construe places, and asserted that these connections do not necessarily fall inside the norm of social structures. Murdoch offered the same idea with the notion of the engaged consumer when he suggested the possibility of topological sensibility or imagining food uniquely beyond the marketing messages or the traditional norms. Similarly, with respect to the relational turn in economic geography, Blay Palmer (2007:111), citing Boggs and Rantisi (2003:111), drew attention to the role of actors in local food networks who are “not preordained to take on structurally determined roles” but who can initiate new ones. What adds to the relationality of these approaches is the strong inclusion of *agency*, and the implicit opportunity to reinvent rather than just reproduce the meaning of place. This focus on individual agency highlights the role of place to which Cresswell (2004:39) refers when he states that we can

think of place in radically open and non-essentialized ways where place is constantly struggled over and reimagined in practical ways. Place provides the conditions of possibility for creative social practice. Place...is marked by openness and change rather than boundedness and permanence.

By way of contrast, the role of place as a potential locus for innovation stands apart from Giddens' definition of locale—which he sees as the lived space of human activity but equivalent to *social space*, governed by particular rules and structures (Shatzki 1991; Giddens 1984).

Thus, he [Giddens] does not acknowledge that human life automatically opens arrays of places organized into settings and that people occupy their environments on the basis of...intentional organization of environments into such arrays (Shatzki 1991:669).

The view of place as a human construct, then, can mean different things, and each of these views can contribute towards understanding how place-making can be imagined and deconstructed (Figure 1.2). The focus of interest can be on the influence of social structure or the intentionality of individuals in creating place, or both.<sup>5</sup>

The social constructivist view, as mentioned earlier, emphasizes that place arises within the context of existing social structure, such as government or international policies, corporate plans, workplace organization, teaching and learning environments, religion, social/cultural norms, public advertising or urban planning design (the built environment). Portraying social structure as the main, humanly-generated force behind the construction of spaces that influence broad-based human behaviour becomes a valuable theoretical framework for research in areas such as population health. With this

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<sup>5</sup> There is overlap here with Bandura's *Social Cognitive Theory* in the field of psychology, which stresses the interplay of personal and environmental influences—as well as individual and collective intentionality—in human functioning (Bandura 2001), but ignores the relevance of place.

perspective, researchers can also reveal power imbalances or inequalities that are embedded in social structures and are manifested at places. The assumed corollary of a social-constructivist view of place is that the policies or norms that created it *can* be changed; and if they do, the nature of place will also change (e.g. inclusive or exclusive of certain beliefs, or incorporating a certain type of urban design), and human behaviour within that place will change accordingly in predictable fashion.

As long as social structural influence is perceived as uni-directional, deterministic or causal, however, human agency is ignored as an engaged or interactive part of the equation. In population health models, the individual is typically shown at the receiving end of a hierarchy of external determinants, a generic set of forces that are not place-specific but could apply anywhere. Dunn et al (2007:S12) have characterized this as “simplistic and outdated”, recommending instead an idiographic approach that “emphasizes the uniqueness of places and their particularly unique historical trajectories, cultural norms, [and] built environments”. Cummins et al. (2007) present this area of uncertainty in current health and place research as the “false dualism” of *context* and *composition* (1825). They suggest that the separation between the empirically measurable environment (physically or socially structured) and the actions and beliefs of people who live or work in that environment may be one reason for inconsistent findings, across geographical areas, between aspects of the built environment and health outcomes. They recommend instead a relational approach, including “qualitative research that gives us insight into how people relate to places and the resources available to them locally” (1830).

A relational view of place, although defined slightly differently among various disciplines, adds complexity to place as a construct. A relational approach acknowledges the important role of social structure, but also acknowledges other layers of embedded meanings or linkages (referred to by some as multiple dimensions or multiplicity) in place. These other layers signify inherent heterogeneity in the meanings of place, a heterogeneity that originates from agency that is not always under the influence of social structure and therefore may be missed in a search for general trends in a structural analysis.

With respect to the role of agency, or the direct role that people themselves play in attributing meanings to place and contributing to place-making, another distinction emerges. Relational views among political, economic or epidemiological geographers such as Massey, Murdoch and Cummins, mentioned above, would stress that the fluid nature of place originates from *groups* of people who construct place at different scales from those who create dominant social structure—but they do not emphasize the agency of individuals (Figure 1.2). Their paradigm of relational place would lead them to examine geographic aspects of social, political, economic or cultural subgroups, movements or networks.

Humanistic geographers do typically view place ontologically as subject-centred, and embrace a construct of place that is experiential and relational. With a humanist approach, a researcher “examines human agency or the ability of individuals to make decisions and change their environments” (Gesler and Kearns 2002:23). Kearns and Moon (2002), reviewing the changing role of place in health geography over the past decade, contended that “arguably, eclectic deployments of the humanist tradition ...have

allowed the most nuanced and effective contributions... [and] have invoked consideration of the experience of both literal place and perceived place-in-the-world” (610).

Focusing on meaning of place from a subject-centred point of view can help to re-conceptualize, if not transform, a field of enquiry (Dyck 1999:250-51). For example, some issues in health geography can be examined in a *demedicalized* way by focusing on the spaces, identities and power relations that are affected by illness or disability (249). Similarly, in food geographies it may be possible to examine a *deconsumerized* view of individuals by imagining how they relate to or interact within places of food consumption, i.e. what meanings these places have beyond the source of a commodity, and how this in turn can reveal a broader set of values or attitudes related to food and place in general.

## ***ii. Meanings of place are created through human agency***

The cultural turn in geography has been described as an attempt “to take seriously...the complete panorama of meaning systems, both collective ... and more individual” (Benko and Strohmayer 2004:136-37). Originally, humanist theory centred around place was strongly represented by the work of Yi-fu Tuan, starting in the 1970s, who envisioned place as “not only a fact to be explained in the broader frame of space, but... also a reality to be clarified and understood from the perspectives of the people who have given it meaning” (Tuan 1974:213). Humanist geographers embrace the understanding that place is a human construct and that meaning unfolds within place (Cresswell 2004:39; Entrikin 1991a:7; Thrift 2003; Agnew 1989; Schatzki 1991:651). Human agency, they say, is inherently spatial, and is central in creating meaning of place,

as meanings originate from the experiences, feelings, knowledge, perceptions and social interactions that people gain from interaction with the built or natural environment. An example of such theory applied to research on the food environment might investigate how people create, perceive and use individual places like markets, while a more conventional, structuralist approach might characterize types of retail locations in the built environment and create a statistical profile or a map using GIS. These approaches can be mutually informative.

Since humanistic geography diminished attention to spatial structure, the meaning of place was re-imagined around its effect on identity, human creativity and experience of place. This perspective was valuable in exposing—often through ethnographic research—the place-based realities of people who tended to be marginalized, often for reasons such as gender, culture, sexual orientation, age, income, disease, disability and displacement (Cresswell 2004). Humanistic geography brought issues of consumption to the fore, with the possibility “to unpack the role food plays in constituting place identities” (Bell and Valentine 1997:preface) as well as personal identities (Valentine 2002). Exposure of individual meaning of place starts with the individual but has the potential of informing larger meaning systems which can be validated through further study.

The subject-centred approach in humanism also engendered the notion of *sense of place*—an individual conceptualization of place that includes feelings of belonging, exclusion, intentionality or passive response. Sack (1992) pointed out that the construction of place results from spatial routinization or “parts of space that become structured by everyday actions” and are unconsciously reproduced (32). He referred to the

resultant spatial awareness and familiarity as a “*sense of personal place*... [which] sustains actions and allows new ones to develop” (33; my italics). According to Entrikin and Tepple (2006), however, everyday actions are not just unconsciously reproduced, but “places may be made [either] unintentionally through habit and custom, or intentionally through planning and forethought” (38). This seemingly subtle difference of intentionality or subconscious reaction in constructing place emerged in my study as a potentially differentiating dimension of sense of place, which I discuss in Chapter 4.

Health geographers who embrace a humanist perspective, such as Eyles and Williams (2008) and Dyck (1999), acknowledge the role of individual intentionality and the significance of sense of place in health; but at the same time they accept the deterministic influence of social structure and the built environment, commonly referred to as *place effects*. Both work in synchrony, as these authors have pointed out.

The nature of a person’s individual sense of place may be a complex combination of awareness of community characteristics and the individual’s subjective reaction to those characteristics that he/she believes are salient community features. Similarly, different community settings could necessitate differing dimensions, and the relative importance of those dimensions could also change based upon the salient features of the community (Eyles and Williams 2009:7).

Bringing a practical perspective to the notion of intentionality in sense of place, Relph, one of the earliest theorists about place, recently introduced a concept he calls a *pragmatic sense of place*. He envisions the need to recognize and harness existing local-level responsibility to deal with current environmental and health-related challenges (Relph 2008a:40-41; Relph 2008b). Again, this view represents individual and collective agency embedded in place, which can operationalize or adapt (or oppose) policies from higher levels of government specifically to suit local needs. The pragmatic nature of this



viewpoint also takes into account the awareness and concern that local actions many have distant consequences. Similarly in my study, I will argue that sense of place or sense of belonging is linked, in some people, to a sense of involvement—in this case, involvement with the local food environment which many people see as in need of change. At the same time, some participants in my study were motivated to change their food-buying habits because of global environmental and social justice concerns, as I will describe in Chapter 4.

With the above theories, concepts and approaches in mind, and given the objectives of my study, I proceeded from the assumption that every individual subconsciously develops a personal construct of place that corresponds with habitual visits to a group of places that fit with personal, social and spatial preferences, needs and responsibilities. The personal conception of place is more than a mental map, however; it also takes the form of sense of place (such as sense of belonging or alienation about the food environment; sense of local or global connections; and sense of active involvement with, or passive response to, the food environment) as well as meanings that surround the experience of being in specific places.

This conceptualization distinguishes place from physical *space* or the built/natural environment, but I do not consider these an oppositional binary; they exist recursively for individuals. For example, a first visit to a location in physical space (referred to in this food-related model as the *built food environment*) is not likely to be random but for some purpose; if it is re-visited it acquires meaning over time through a variety of judgements, interactions and connections, a process which transforms it into “place” for an individual. This process usually involves a blend of social interactions, values, emotions, spatial

issues and material needs being met, although not always consciously so. The process of establishing meaning of place for an individual is thus dynamic over time: it involves on-going interaction between places in the physical environment and on-going experience at those places.

A mutually reinforcing relationship reveals itself here between routine behaviour and meanings of place: locations do not become part of one's routinely-visited destinations unless sufficient meaning is ascribed to them and conversely, meaning is intensified from habitual exposure to a place. With respect to the food environment, a neighbourhood may contain several nearby food stores and restaurants that are rarely or never visited by any individual resident, either because they have no meaning to that person or because they are purposefully avoided due to some negative meaning.

Having established the basic presuppositions about the nature of place for my study, I will turn to "ways of knowing" or valid methods by which those assumptions can be studied and tested in the field.

### ***b. Epistemological implications***

According to Cresswell (2004), place frames our ways of seeing and understanding the world and is therefore as much a question of epistemology as ontology (110). The research questions I posed at the beginning of this chapter included two different but complementary types of queries that were designed to inform the development of a conceptual framework.

The first two questions were about understanding individual meanings of place and parameters of sense of place: they represent an ontological acceptance that place is constituted through human agency. If individual, relational meanings of place can be

understood “in terms of how the people who live there construct, sustain, perceive and experience it” (Sack 1992:11), then knowledge about it must be acquired through qualitative methods. Qualitative techniques can be used for information gathering as well as analysis, i.e. they have the potential for *deconstructing* categories of place as well as for *constructing* knowledge about place in experientially-based inquiry (Dyck 1999:244, my emphasis). The qualitative methods I used in my study are described in Chapter 2; the data analysis from the 44 hour-long semi-structured interviews is presented in Chapters 3 and 4.

The other two questions are about patterns of difference, and also about how those patterns may be linked with dietary quality. This query is based on the acceptance that human behaviours and meanings can be evaluated for similar tendencies or qualities. Starting as qualitative statements, they can be coded in a defined way, and then categorized, quantified and used in further analysis. In this study, a number of behavioural attributes emerged from data analysis, such as degree of involvement or impulsiveness within the food environment. I included them in an exploratory analysis together with the quantitative data that I had gathered: demographic statistics, characteristics of place (related to the Personal Food Environment or PFE) and three-day dietary data (quantified as the Healthy Eating Index or HEI). My methods are presented in Chapter 2, and the analysis in Chapter 5.

The methodology I used in my study exemplifies a mixed methods approach in terms of intertwined quantitative/qualitative data gathering as well as data analysis. Its strengths and limitations are discussed in the next section.

## **i. Mixed methods**

Johnson et al. (2007:129) developed the following definition of mixed methods research based on consensus among key theorists and practitioners and a review of 19 different definitions in the literature:

Mixed methods research is an intellectual and practical synthesis based on qualitative and quantitative research; it is the third methodological or research paradigm (along with qualitative and quantitative research).

As the definition indicates, these researchers suggest that mixed methods can be seen as a distinct *paradigm* for research—one that is inclusive of broader socio-political and human geographical realities and needs (129). In this sense, mixed methods represents an approach for generating the research questions themselves as well as providing ways to answer them (Tashakkori and Creswell 2007). The potential for original questions and methods is especially evident in a research design in which the quantitative and qualitative strands are linked recursively and inform each other (209).

In my study, for example, my research question about relational meanings of place required that these be articulated through the voices of participants. However, bringing out these meanings is a challenge, as people do not normally reflect on meanings in their everyday lives. Therefore I asked an alternating series of quantitative and qualitative questions during the interview process, to help guide the flow of information. More concrete and quantitative questions like “*where* do you go to buy food, and *how often*” were easier to answer at first, but the process of identifying and mapping their familiar places then facilitated verbal (qualitative) reflections by participants about the meanings of each place and sense of place. I discuss this elicitation technique in more detail in Chapter 2.

It should be noted that the quantitative data in my study were not measured directly and so could not be called truly “empirical”; it was self-reported through a guided, semi-structured interview. As participants told me where and how often they routinely bought food and ate out (“routinely” having been defined for them), the number of places and number of visits in their PFE could be calculated—but this is an estimated figure. For dietary assessment through a “24-recall” method, the same is true. Verbal probes, reminders and special (but non-leading) questions help to increase accuracy; but there is always inherent error in translating data obtained from human memory and variable degrees of disclosure into numerical data. Qualitative data are also subject to interpretation, which I will discuss in the next section on grounded theory.

## **ii. Grounded theory**

Language and discourse provide the raw material from which meanings of place emerge. This material can be analysed with a *grounded theory* approach, a systematic methodology that includes data deconstruction, coding, analysis and re-construction into meaningful categories (Strauss and Corbin 1998; Charmaz 2006). It assumes that both participants’ frames of reference and researchers’ analytical insights are constructions of reality; therefore the interpretative process must aim to explicate and clarify these constructs as they emerge from the experience of individuals, not categorize narrative into predetermined categories.

Charmaz (2006) has delineated two types of theoretical approaches within grounded theory: *positivist theory* which “seeks causes, favours deterministic explanations, and emphasizes generality and universality”, and *interpretive theory* which aims to

understand more than explain. She emphasizes that interpretive theory “assumes emergent, multiple realities; indeterminacy; [and] facts and values as linked” (126).

For my study, which examines meanings of place in an exploratory way and relies on data as voiced by individual participants, interpretive theory is fitting. According to Winchester (2005):

The experiences of individuals and the meanings of events and places cannot necessarily be generalized, but they do constitute part of a multi-faceted and fluid reality. Qualitative geographical research tends to emphasise multiple meanings and interpretations, rather than seeking to impose any one “dominant” or “correct” interpretation (6).

In analysing the material from the interviews, I did indeed find multiple realities and meanings around food and food places. In using a semi-structured questionnaire, the process was not as purely “emergent” as it would be with longer term ethnographic research with the same group of people. In asking about the places where participants bought food or ate out, I asked for descriptions, stories, histories, and reasons why people went to certain places repeatedly. I did not ask about specific issues such as health, nutrition, local food, environment, fast food, convenience, price or proximity, but relied on participants to bring up their own issues as related to food places. In this sense, epistemologically, the knowledge or data for my study were drawn from participants’ self-reported, individually-identified meanings.

The data interpretation process in particular, however, contains a source of variation that stems from the personal interests and experience of the interviewer. It inevitably influences the type of coding and analysis that is done, and should be acknowledged up front (Creswell 2007:178-79; Charmaz 2006:15). Thorough reflexive documentation enhances the *reliability* of a research project (Flick 2007:16). Some authors interpret

reflexivity as transparency about the research process, but not necessarily about the researcher's background experience (25). I aimed to do both. For example, my interest in the use of, and attitudes towards, alternative forms of food retail (e.g. rural food stores, CSAs, food buying clubs) led me to pay special attention in my analysis to what respondents had to say about these places. As well, since reflexivity is essential in the language of the study, I used the first person in the text to be clear that certain processes, interpretations or conclusions come from my own vantage point.

The notion of *validity* and methods to increase validity in qualitative research are complex and much-debated, ranging from reflexivity to rigorous triangulation of data collection and analysis (Baxter and Eyles 1997). Flick (2007:18) has pointed to the shift from validity to the *process of validation*, by applying “method-appropriate criteria” that lend credibility and confirmability to a qualitative research project. In dietary assessment, validity describes the degree to which a method “measures what it is intended to measure” (Gibson 2005:149). In any study it is the researcher who decides what he/she intends to measure; therefore I would apply this definition to grounded theory analysis of semi-structured interviews as a process by which another person (who understands the process) can apply the researcher's defined codes or themes to a text independently, and arrive at the same or very similar results as the researcher did. This would signify that the themes were sufficiently clear that they could be used to identify specific phrases in a transcribed interview. The process would differ in an ethnographic study or one in which more than one interviewers gathered data for the same project. For my study, my coding categories were validated by another researcher, as I explain in Chapter 2.

I turn now to research that has used food to examine meanings of place, as a prelude to explaining the concept of the personal food environment.

### **c. Applications**

#### ***i. Constructs and meanings of place through the lens of food***

Earlier in this chapter, I outlined the value of food as a theme or a lens through which to capture meanings of place that apply to a specific segment of everyday life (food buying or eating away from home). Wakefield (2007) has used a similar technique by exploring tensions and opportunities of praxis in critical geography through the lens of the food movement. In this section I briefly summarize the key research that has examined meanings of place through food, with various angles and topics.

A focus on place, rather than on demographically or economically-defined population groups, can challenge assumptions and provide insights on how certain meanings might traverse these groups. Crewe (2001) asserted, for example, that organic food on the market is “deeply socially divisive” by creating an elite group of consumers who are willing to pay more for food at places outside the conventional supply chain (631); Guthman (2003) made similar claims about what she called “yuppie chow”. Other researchers, by demonstrating the heterogeneity of population groups that use markets or specialized food places, have questioned the ubiquity of this apparent elitism and have shown that people’s food buying behaviours are not so easily predicted (Donald and Blay-Palmer 2006; Guptill and Wilkins 2002; Lockie 2002).

UK researchers have focused on local retail changes linked to the changing global food system. Clarke et al. (2006) surveyed over 2,500 people in Portsmouth, UK, to



determine the meanings attached by consumers to their food shopping experiences. They examined the difference in “attitudinal determinants” over a twenty-two year period, noting that in 1980 “small and local” was not high in preference for choosing a food store, but by 2002 this meaning came first—even though (or perhaps because) most small local food merchants had been replaced by superstores (40-41). Still, large grocery stores were used more often, leaving the researchers to ask how shoppers distinguish between stores in order to decide where to shop and to what degree these decisions are free choices.

In follow-up research, Jackson et al. (2006) used ethnographic techniques with eight families in two contrasting areas in Portsmouth. The study focused on the conventional components of consumer choice (convenience, taste, price) but showed that these have different meanings in different types of households, between and among stores. The concept of *convenience*, for example, was interpreted in a myriad of ways. The study showed that these meanings did not divide by “class” or income level. It concluded that “while food shopping practices tend to be routinised and habitual... consumers are skilful, knowledgeable and reflexive subjects, *evolving a repertoire of store choices to fulfil their diverse requirements* (Jackson et al 2006:64, my emphasis). For future research, this study suggested more qualitative research “to relate peoples’ choices of where to shop and what to buy to their diverse domestic circumstances as well as to the changing retail environment” (64). They recommended the development of a tool that that could “capture the complexity and variation in household and neighbourhood circumstances at the local level” in order to inform policy that would both foster true consumer choice and ensure viability of the food retail sector (65).

In the United States, Cannuscio et al. (2010) interviewed residents of a Philadelphia neighbourhood about issues related to their food environment. The researchers used a photo-elicitation technique (pictures taken of neighbourhood buildings and streetscapes, to stimulate reflection about place in interviews).<sup>6</sup> “Instead of viewing the food environment simply as a source of calories and nutrients” (381), researchers focussed on how study participants described the social dynamics that played out in their neighbourhoods—with special attention to three different types of food stores that “typify the food environment in this sixth largest US city: corner stores, ‘Stop and Go’s’ (delis that also sell beer) and Chinese takeout restaurants” (382). Multiple meanings emerged that created a complex construct with respect to the neighbourhood food environment: the community cohesion value of corner stores; health concerns about the ubiquity of packaged snack foods and pop; community safety issues related to alcohol and drug sales at Stop and Go’s; and racial tensions (especially feelings of exclusion among Black residents) around the take-over of many food places by Asian owners. While this study illustrated clear neighbourhood place effects that seem more typical of American inner cities than elsewhere (Cummins and Macintyre 2006), these concerns also caused several residents to take the initiative to travel further to buy food. The approach of this study, if applied elsewhere, would help inform action to make a difference.

In Ontario, Feagan (2007) studied geographies of place specific to the “turn to the local” (29). He noted the multiple meanings around food localism that arise because “regions/places are imagined and constructed, and...they are dynamic and contingent upon both agency relations from below and structural relations from above” (31).

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<sup>6</sup> The Philadelphia visual epidemiology project can be accessed at [www.visualepi.com](http://www.visualepi.com).

Meanings of place concerning food localism, then, come from influences within and without the community. For example, valorization of local food from *within* can result in “constructed terrains” of bioregionalism (34). At the same time meanings from *without* (the dominant global food system) continue when consumers expect low food prices for food that has been grown locally or organically, forcing farmers to import migrant labour, expand production methods and export products.

In Australia, Lockie (2001) examined the ways in which place and identity can be constructed together through signature food produced locally—in this case beef in the town of Rockhampton. Focus groups revealed a multiplicity of “geographic knowledges embedded in food practices” (253), bringing up historical meanings, controversial issues and contradictory responses, as well as a locally-constructed, symbolic sense of identity that coincided with a declining cattle industry.

From these studies it is evident that when food-related practices are examined in terms of how individuals or groups conceptually construct places in various ways, a variety of meanings emerge. These meanings provide insight into how place matters not just as physical infrastructure but in how it is diversely imagined, remembered and acted upon. In my study I also pursued this angle, building on a construct that Jackson et al. (2006) would call a *repertoire* of stores, but expanding it to all places where people routinely buy food, and explicitly seeking out the multiple meanings embedded there. I also explore how these meanings may be linked with dietary behaviour. Other literature that is relevant to this study is introduced throughout the chapters in which I analyse my data (Chapters 3, 4 and 5).

## *ii. Mixed methods for deconstructing meanings of place*

Matthews (2008) has suggested that new, cross-disciplinary conceptualizations of place are needed to facilitate understanding of how people interact with place, claiming that recent innovations in social and environmental sciences, geography and health studies have been driven less by theoretical advances than by new tools and methods. For example, a conceptualization of place that incorporates both physical/empirical space or place *and* the personal meanings embedded in it becomes at the same time the basis for a mixed methodology.

Matthews et al. (2005), for example, have combined geographic information system (GIS) technology with ethnographic data about daily travel events, which they call *geo-ethnography*. This technique is useful for in-depth studies which, in their case, can “situate families in broader geographic contexts and visualize the different strategies they employ in their use of neighbourhood resources, anchor institutions and social networks” (88). Another model is illustrated by Papinski et al. (2009), who combined GPS, GIS and diary responses to provide insight into how people formulate their everyday travel plans, and described their attitudes and preferences for their selected routes. Their study showed that about one-fifth of participants deviated from their planned route; the authors recommended the use of qualitative and quantitative survey methods for understanding the route choices people make and why.

I have developed a non-technological technique with a similar intent—namely to map individual activity spaces coupled with meaningful, relevant qualitative information—but designed for use in the context of a single interview rather than in real time, and based on verbally-reported, average frequency of visits to places. It was

designed to articulate the constructs that people create around the places where they buy and consume food, but it could be applied to other types of places.

### *iii. The Personal Food Environment*

A trip to a market, a store, a fast food restaurant... may be a taken-for-granted aspect of everyday life for many, but these actions play a critical role in the meaningful creation and expression of place. A key theme is the necessity of acknowledging the situatedness of consumption processes, that is, how they take and make meaning as they are created and expressed across space and time (Mansvelt 2005:1).

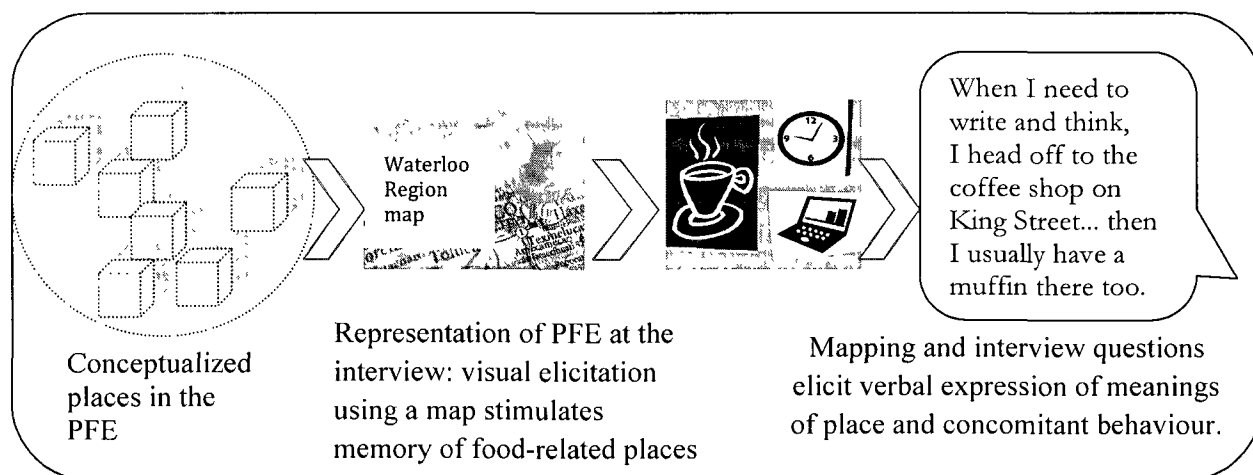
With the aforementioned ontological and methodological concepts in mind, I have generated a hypothetical construct I call the *personal food environment* (PFE). The PFE is highly personal: it is the set of places where a person routinely buys food (to take home or eat away from home) within the region where he/she lives and works. For this study I defined “routinely” as daily, weekly or monthly (i.e. an average number of times per week or per month). For mobile adults who purchase their own food, the PFE co-exists in two domains: *physically*, in the locations within the built environment where food is habitually bought (commonly referred to as “the food environment”); and *conceptually*, as the places one mentally draws upon as familiar, meaningful food-related destinations that are linked with various needs or desires. These needs or desires may be primarily food-related or not, as the place may fulfil other functions such as a space to study or socialize. The physical and conceptual domains of the PFE mutually inform each other, as I explain further on.

In a built environment that contains a diversity of food retail places, every individual has a different PFE by choosing among the options that are accessible to them. Access is determined mainly by proximity, mobility and income, but individual choices

are based on a wider number of criteria, as this study shows. The PFE can change over time, and meanings change along with it as experience at certain places grows. As well, the PFE differs in magnitude among individuals; it can result from many years of living in a place or from initial reconnaissance when new to an area. The use of the PFE in this study is explained in Chapter 2. PFE meanings are examined in Chapters 3 and 4, PFE characteristics are explored in Chapter 5 and its significance is discussed in Chapter 6.

I also used the PFE as a method to determine its component places for an individual in the context of a semi-structured interview. The PFE can be represented visually on a map as the constellation of food-related places that are routinely visited. The process of explicating the PFE as a construct became an interview tool with two functions: first, to closely approximate the current set of food-related places that are routinely visited, and second, to prompt verbal articulation of the various meanings of these places (Figure 1.3). This use of *visual elicitation* is a recognized technique in qualitative research (Crilly et al. 2006; Cannuscio et al. 2010), but the use of a map for this purpose is an approach that has not been documented in the literature.

**Figure 1.3 Representations of the personal food environment (PFE)**



The spatial representation of one's personal food environment is loosely related to what is called *activity space*, defined as “the spatial movement component of an individual's day-to-day lived experience, and thus experience of place” (Sherman et al. 2005:2). The personal construct of place as presented in this study, however, is less concerned with travel than with the experience of being at place; it includes the beliefs, memories, social ties, responsibilities and needs that are mentally connected by individuals to familiar locales.

Gregson has taken a similar experiential approach with shopping geographies, looking at how “the place of shopping in the rhythms of everyday life and the socialities of shopping are used to invest meaning in particular types of shopping space” (Gregson 2002:597). Gregson avoids the connection with purchasing transactions *per se*, preferring to examine how shopping spaces are constituted by shoppers themselves (598), akin to the way I examine meanings of food-buying places. Through ethnographic research with five women, she identified meanings inherent in charity shopping in second-hand clothing stores, and identified differentiating patterns in practice such as necessity and choice.

Gregson identified a construct comparable to the PFE:

Shopping space is more appropriately conceptualised as a tapestry of differentiated spaces, woven together to comprise personal, accumulated shopping geographies that are routinely reproduced, and extended through practice (Gregson 2002:613).

The tapestry image is a static one, possibly unintentionally so; but in Gregson's construct as in the PFE, the element of routine does bring in a degree of temporary fixedness (it changes over time but not on a daily basis). This metaphor incorporates the interwoven multiplicity of meanings in personally constructed place.

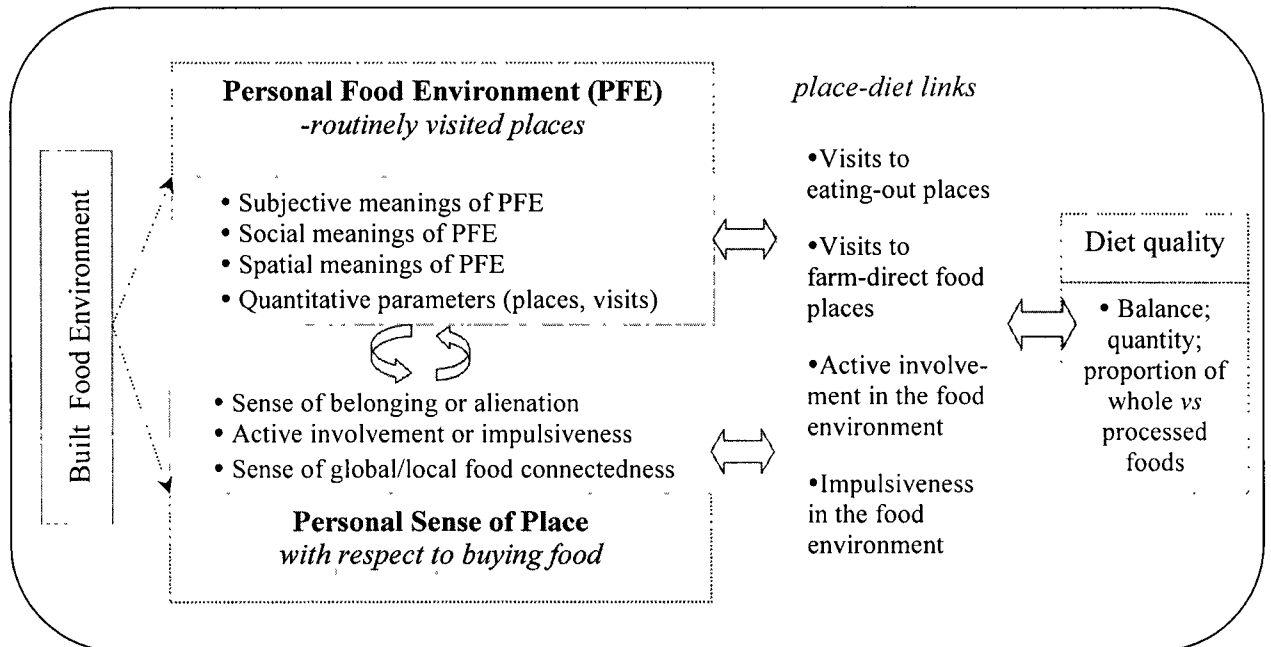
I will reflect on the usefulness and limitations of the PFE as a construct and method in the final chapter.

### **1.3 Synopsis**

I have developed the conceptual framework below as a way of bringing together the theory and conceptualizations of place and the findings from applying these conceptualizations in my study. This conceptual framework for my study (Figure 1.4) shows aspects of place and sense of place that are related to food buying and eating away from home. The places that constitute one's personal food environment (PFE) are not just locations, but embody complex subjective, social and spatial dimensions of meaning. As well, daily food procurement activities are linked recursively with sense of place, including feelings of belonging or alienation, active involvement and impulsiveness, and for some people a sense of connectedness on a global and/or local scale. Both the PFE and personal sense of place are conceptual dimensions of the physical built environment, which contains the places from which people derive and attribute meaning. Some of these meanings of place and places are reflected in dietary behaviour, since a person's habitual food consumption is based in the context of their everyday life and how they imagine both food and place. The qualitative and quantitative findings from this study suggest that interconnections between place (with its full range of meanings) and diet are mediated through *geographically-based* meanings or conceptualizations, as much or more so than by nutritional considerations and other social/demographic determinants.



**Figure 1.4 Conceptual framework: Meanings of place and diet quality**



In summary, this chapter has set the stage for my study, which explores meanings of place, in the context of food, with a mixed methods (qualitative/quantitative) approach. This study's focus on a conceptual, relational approach to place, using a hypothetical construct called the personal food environment, as I have described, is meant to complement structural methodologies in human geography and health by contributing a more in-depth perspective into person-place interactions. I intend in this work to operationalize what a growing number of human geographers have been advocating for in terms of alternate ways of knowing about place, and of conducting qualitative inquiry around the centrality of place. The inclusion of a robust dietary assessment component, as well as some quantitative measures of the PFE, opened up a variety of exploratory options for discerning meaningful patterns among individual conceptions of place. This combination of methods constitutes a novel approach that aims to open up areas for further research.

## Chapter 2: Methods and study population

### 2.1 Rationale for methods used

For this study, my research goal of exploring personal meanings of place related to food, and investigating the potential links of these meanings with dietary behavior, required a mixed methods approach, as I explained in Chapter 1. One main impetus behind this goal was to address, through qualitative methods, the gap in understanding about the meanings of place in adults' routine experience of purchasing/consuming food at *places* away from home. A related part of this qualitative inquiry was about *sense of place*: to determine how individuals' conceptualizations of the food environment or food system (local and global food sources and accessible retail venues) contributed to their sense of place.

To obtain a closer understanding from the point of view of the study participants, I conducted individual semi-structured interviews and employed a grounded theory approach to analyse them (Charmaz 2006; Creswell 2007; Baxter and Eyles 1999). I also pursued a *quantitative* strand in conjunction with the qualitative one: first, to examine the variation in personal food environments among a diverse group of residents from the same area of the city; and second, to explore links between meanings of place and dietary quality. The quantitative analysis of diet using the Healthy Eating Index provided a rigorous assessment of whole diet (not just one component such as fat or fruit and vegetables) that is virtually absent in studies related to the food environment. According to mixed-method theorists, "the expectation is that...conclusions gleaned from the two

strands (qualitative and quantitative) are integrated to provide a fuller understanding of the phenomenon under study” (Creswell and Tashakkori 2007:108).

The conceptual framework of this study interrelates the triad of personal food environment, sense of place and dietary quality (Figure 1.4). The joining of topics from humanistic geography and nutritional science may seem to be an esoteric mix, both ontologically and methodologically; but I hope to demonstrate that it can yield some new insights into how a health-related indicator might be influenced by the meaningful complexity of everyday experience of place and at places. I hope also to show how food plays a role in creating individual meanings of place, a relationship which has been largely ignored to date.

In summary, my research aims to broaden the understanding of dietary behaviour by importing the consideration of meanings of place; and conversely, to broaden the construct of meaning of place by introducing the connection with food actions and transactions. To do this requires sensitivity to scientific, social scientific and humanistic literature and methods. This combination of methods produced data from individuals that enabled: (a) identifying routinely-visited places, (b) unpacking the meanings of those places based on personal reflections and descriptions, (c) exploring how actions and meanings around food may contribute to sense of place, (d) assessing average individual diets and (e) revealing tentative linkages between some of the afore-mentioned elements and dietary quality. The research process for this dissertation is outlined in the flowchart, Figure 2.9.

## **2.2 Research tools**

The in-depth interviews of this study, as opposed to a full ethnographic inquiry, were time-limited in terms of feasible duration of interviews, transcription and data processing. Yet it was essential that the questions and the interview process would encourage candid expressions of actions, experiences, feelings and ideas in order to provide the raw material for in-depth analysis of place meanings with a grounded theory approach. Charmaz (2006:19, 21) has called this “gathering rich data” by “entering research participants’ worlds”. A mixture of questions that stimulated experiential, descriptive and reflective responses were effective in gaining insights into these worlds. The types of questions I used were based on established ethnographic techniques (Spradley 1979; Charmaz 2006; Valentine 2005; Creswell 1998) and partly on my own experience with ethnographic interviews (Campbell and Desjardins 1989). The basic principle was to start with the respondent’s own everyday experience and gradually encourage the articulation of key meanings and distinctions. What follows are descriptions of the tools I designed and used, with elaboration on their application in the field. Samples of all tools are in the appendix.

### ***a. Semi-structured interview questionnaire***

The questionnaire was meant to be completed in about an hour. It consisted of five parts, the final three of which could be answered in about 15 minutes:

(1) A general question that asked participants to identify places where they routinely bought food away from home (their “personal food environment” or PFE), as well as an estimate of the frequency (in their own terms) and how they usually travelled there. A city map was used in conjunction with questions 1 and 2 – see section b below. I let people respond freely, and probed when they could not remember more places by suggesting other types of places (e.g. markets, specialty stores or cafeterias).

- (2) A general question that asked participants to talk about each place in turn in terms of how it mattered to them and why they chose to return there repeatedly (in terms of the food, or the place itself, or the people they met there)
- (3) Seven specific questions relevant to the PFE
- (4) Six supplementary questions about food-related practices not related to the PFE
- (5) Demographic and self-reported anthropometric (height and weight) information.

### *Pre-testing of questionnaire*

I pre-tested the above tools with three interviews prior to the study (one male and two females, two of whom were new Canadians). I modified some of the questions as a result, to ensure that questions were worded clearly, that the mapping process was comprehensible and that the interview could be completed within an hour. Mostly, it was important to know that participants' responses to my questions and interview process would help me understand not only what the range of their experiences were (with respect to food buying and consumption in the community) but also how they valued and made sense of their experiences. The pre-test interviews were helpful: they confirmed to me that the map was useful, and they especially showed the importance of allowing a free flow of ideas as people identified their routine food places and understood that I was interested in stories, descriptions, feelings and social encounters at place (not just types of food bought). It was important to abandon the rigid separation between questions #1 and 2<sup>7</sup>, and to let people express their thoughts as they came up when imagining the places they visited.

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<sup>7</sup> Question #1 asked the participant to identify the places where they routinely went to buy food or eat out. Question #2 asked the participant to go through these places again and talk about what they meant to them.

### ***b. City map as an elicitation tool***

The use of a city map in the interview originally had a dual purpose. First, it served as an “elicitation tool” (Crilly et al. 2006) to stimulate the interviewee’s memory of the spatial environment and concretize (visually) the abstract notion of the PFE as a representation of their own personal set of food places. Secondly, it provided an analytical tool for distinguishing physical patterns in PFEs among the study participants. The second purpose ended up being of limited use for this study, as I did not quantify distances, travel patterns or activity spaces, and distinct patterns in PFEs were not visually apparent. Spatial analysis could be attempted in the future, however. I found it more helpful to characterize the PFE by the number of places visited and number of visits to different types of places, as I have analysed in Chapter 5. The map did prove to be an effective elicitation tool. The use of the map in practice is depicted in Figure 2.8.

### ***c. 24-hr diet recall (dietary assessment tool)***

To assess average individual or group dietary quality, the Healthy Eating Index (HEI) is an established, validated tool (Gibson 2005). It has recently been adapted to Canadian food intake recommendations by Statistics Canada (Garriguet 2009). The HEI is a composite index comprised of 11 dietary components that add up to a score of 100 points (see charts in the appendix). It is based on a “24-hour recall”, a detailed list of everything a person ate the previous day. Since considerable within-subject variation in diet is expected in developed countries, the assessment of usual, individual diet requires at least three 24-hour recalls gathered within a 2-week period on non-consecutive days, to improve reproducibility (Gibson 2005:131). For groups of people, average dietary intake

can be obtained by only one or two 24-hour recalls per person, as was done to arrive at HEI calculations for the Canadian population.

Reproducibility is also better if the data are collected by a nutrition professional in a rigorous manner (e.g. careful probing about food types, ingredients and amounts, and querying the ingredients of composite foods and homemade recipes); this matters in particular because key components like fat and sodium vary considerably depending upon the processed nature of foods and are reflected in the nutritional scoring. My experience with dietary assessment as a nutrition professional was useful in this regard as I conducted and analysed all the diet recalls for this study. Nevertheless, the accuracy of the dietary data is limited by subject memory, and bias may be introduced due to seasonality as well as a possible “social expectation” factor in which some subjects might knowingly modify parts of their diet history (Gibson 2005:109).

One 24-hour recall was completed at the time of the interview. I obtained two more recalls over the telephone for each person, scheduling them so that the three recalls included one weekend day and two week days within a period of two weeks from the interview date. Thus, for 44 participants, I gathered 132 diet recalls, and calculated HEI scores for all of them. The analysis is described later in this chapter.

After the research protocol and forms were established and approved by my advisory committee, I received ethics approval from the Wilfrid Laurier University Research Ethics Board. The ethics form that was signed by participants is in the appendix.

## 2.3 Study Population

### *a. Recruitment of subjects*

I accomplished the first stage of recruitment by asking for participation from among members of a local food buying club in central Waterloo<sup>8</sup> (Bailey's Local Foods, or BLF). My intent was to obtain a study population that included two subgroups that were potentially comparable by different food beliefs: half BLF members who had indicated an interest in locally-grown food, and the other half non-BLF members from the general population in the same neighbourhood. I was interested in food buying as a lens on meaning of place, and was aware that food buying practices were in a state of flux due to the recent increase in public attention to food system issues such as "buying local". Thus I aimed for my interview population to be a combination of an *illustrative sample* (Valentine 2005:112) plus an equivalent number (not matched demographically) from the same geographical area who could provide a more normative popular perspective.

A recruitment email was sent in June 2009 by the BLF owner to its 195 members, with a description of the study and an incentive of a \$30 coupon redeemable for BLF foods. The recruitment area was designated as the approximately 1.5 square kilometer area bounded by Erb Street, Westmount Avenue, Moore Avenue and John Street. This area comprises about three census tracts (100, 101, 103), and had a population of about 8,000 in 2005 (V. Martin, Region of Waterloo planner). I restricted my study to this area in order to reach people with a proximal food environment that was fairly similar. All of the BLF members who were recruited lived in this area. The appendix contains a copy of

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<sup>8</sup> Waterloo is a mid-sized city in Ontario, about 100 km west of Toronto.



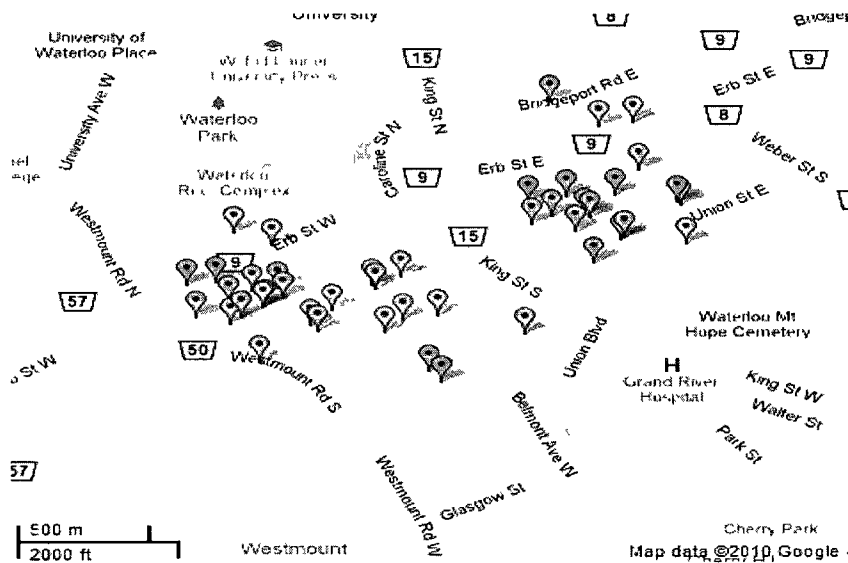
the recruitment letter and reimbursement coupon. Twenty-four BLF members volunteered and were initially contacted by e-mail. Two of them were not home at the appointed interview time, leaving a total of 22 participants.

Subsequently, I recruited an equal number of additional subjects by distributing the same letter in mailboxes throughout the same neighbourhood (255 flyers). I did this during the same period of time as when I was interviewing (mid June to the end of August, 2009). I offered an incentive of \$30 as either a BLF coupon or cash, to encourage participants of all levels of income. From that recruitment drive, twenty five participants offered to join the study. After interviewing 22 people (equal to the BLF members), I determined that a sufficient degree of “saturation” had been reached, in that there were no further responses that stood out from the others (Charmaz 2006:113; Bowen 2008). I had obtained by then several male participants to counter-balance the majority of females, and had reached people with a range of income levels and ages. This did not mean that my sample was necessarily representative of the average population in the neighbourhood, but it can be considered a non-probability sample of people.

A total group of forty-four subjects was at the upper end of a manageable number for in-depth qualitative interviewing and analysis on my own, and large enough to provide a range of qualitative perspectives complemented with quantitative data for an exploratory, mixed-method study. The participants were recruited and interviewed over a two month period from July to August, 2009. It turned out that the two populations (BLF members and others) were not dissimilar in their viewpoints on place, food-buying behaviour or diet; therefore I analysed the study population as a whole. Figure 2.1 shows

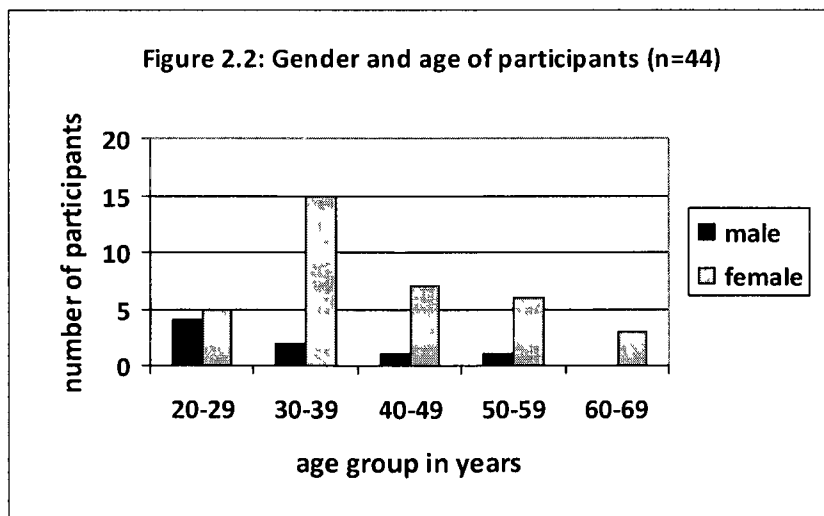
the map of approximate interviewee locations, positioned on average by postal code rather than exact address.

**Figure 2.1 Approximate locations of interviewee residences**

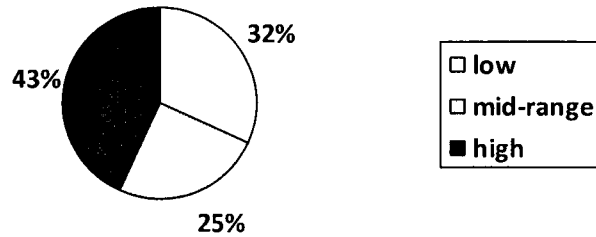


**b. Population reached**

Figures 2.2 to 2.6 describe the characteristics of the 44 people reached by gender, age, income, duration of residency in the region and number of children at home. These data are explained and discussed later in this chapter.



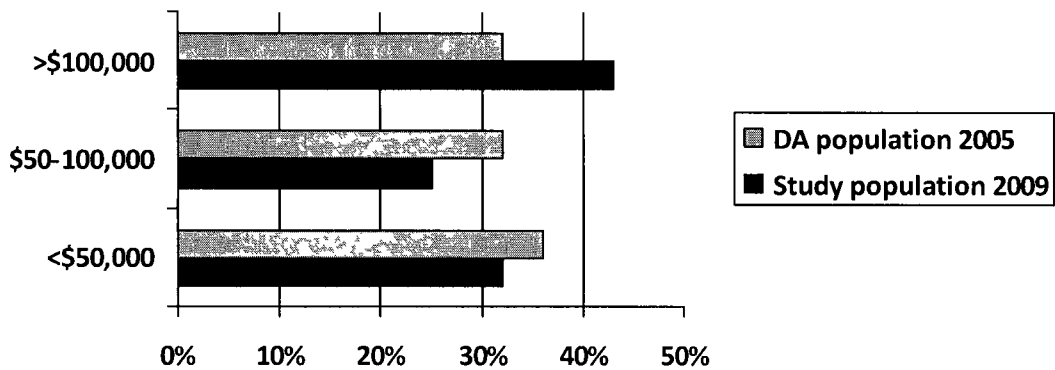
**Figure 2.3: Income range of participants**



**Household income groups**

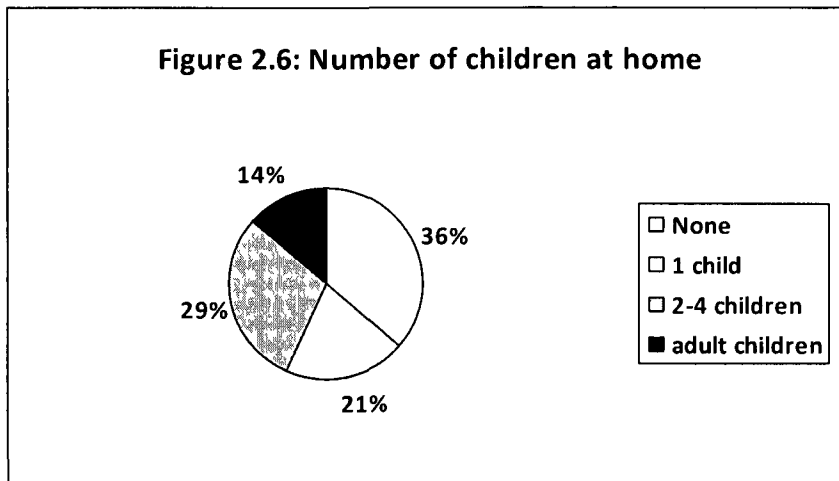
Low = < \$50,000/yr.  
 Mid-range = \$50 - 100,000/yr.  
 High = > \$100,000/yr.

**Figure 2.4: Study Population and Overlapping Dissemination Area (DA) population compared by ave household income**



**Figure 2.5: Number of years of residence in Waterloo Region**





Eleven participants (25%) were either single or widowed, including 3 males. Ten people (23%) did not own a car. Four participants (9%) had only a high school education; 91% had at least a few years of university or were university or college graduates. The majority of respondents (80%) were female (Figure 2.2). Out of all 44 participants, 24 women and 5 men did all the food shopping for themselves or their households; and 15 couples shared the food shopping. Men were under-represented in this study; gender similarities and differences could be the subject of future research.

Household income is shown in Figures 2.3 and 2.4. The household income groups were less than \$50,000 per year (32%), between \$50,000 and \$100,000 (25%) and more than \$100,000 (43%). This is fairly representative of the 2005 average household income for the six combined *Dissemination Areas* (DAs) which are a close match with the area in which study participants lived<sup>9</sup>. High income households were somewhat

<sup>9</sup> Income data by Dissemination Area (DA) were provided by Virgil Martin, Planning Information and Research, Region of Waterloo. The six DAs were 300732, 33125, 300126, 300132, 300118 and 300133 within census tracts 100, 102 and 103 in Waterloo. Income data from the 2006 census of Canada represented a 20% sample of the households in each DA.

overrepresented in the study sample. Of the 14 people in the lowest income group, the majority (10) had a yearly income well below \$50,000, being students, self-employed or on a pension. The range of income levels among study participants was useful for an exploratory study, to see whether there were divisions in certain food-buying behaviours and place meanings along income lines or not. This will be discussed in Chapter 4. It must be noted that the “lower” (<\$50,000/yr.) household income category I used in this study did not match the *Low Income Cut-off* (LICO) that is defined by Statistics Canada<sup>10</sup>, because this is a complex indicator that varies by family size, and deliberately reaching a large percentage of low income families was not the focus of my study.

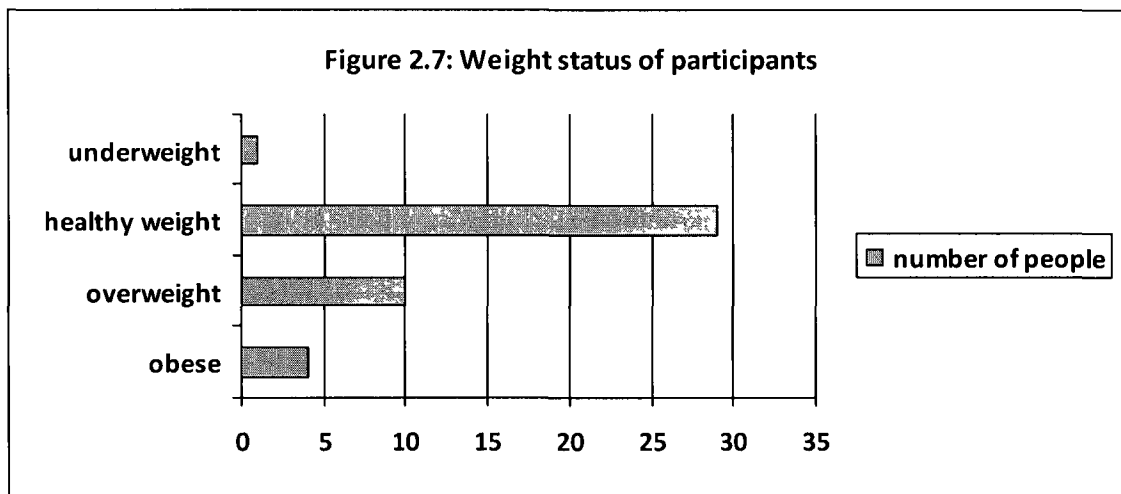
Figure 2.5 shows that in terms of length of time of residency in Waterloo Region, a relatively small percentage (14%) of people were relative newcomers (living there 4 years or less). On the other hand, 38% of respondents had lived in the Region for 20 years or longer. Many people therefore talked about the changes they had seen in food retail and other aspects of the food system over time and could reflect about changes in their families as well. They had developed their personal food environments (PFEs) over time by building strong social ties, food and place preferences and travel routes, which, I argue in later chapters, also contributed to their sense of place. The range of time of living in the Region in relation to indicators of sense of place will be discussed in Chapter 4.

Figure 2.6 shows that exactly half of the participants had infants, toddlers or school-age children at home. This provided an opportunity to learn how meanings of place were affected by the presence of children and how this might differ in families/households

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<sup>10</sup> An explanation of the Statistics Canada Low Income (LICO) cut-off is at <http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=13-551-X&lang=eng>

without children. Weight status of participants (Figure 2.7) was calculated with self-reported weight and height data collected at the end of the interview. The *body mass index* or BMI (weight in kilograms divided by height in meters squared) is classified into categories according to associated risk of chronic disease, as shown in the chart below.



classification	Body mass index (BMI)	health risk
underweight	<18.5	increased
healthy weight	18.5 – 24.9	lowest
overweight	25 – 29.9	increased
obese	≥30	high

In this study, the majority of participants (66%) were in the healthy weight range, while 32% were either overweight or obese. One participant was underweight. The 2 women who were pregnant at the time provided their pre-pregnant weight. In comparison, in Ontario 51.4% of the population aged 18 and over was either overweight or obese in 2009, by self-reported data (Statistics Canada 2010). The lower than average incidence in this study may be because overweight or obese residents were less willing to be interviewed. Most likely, it was partly related to the higher than average proportion of people with higher education, since in urban Canada, “average BMIs of residents of

neighborhoods in which a large proportion of individuals had less than a high school education were higher than those BMIs of residents in neighborhoods with small proportions of such individuals” (Ross et al. 2007:500). In that case, it is possible that the average weight status of the study group was similar to that of the uptown Waterloo neighbourhood. No official BMI statistics by DA or census tract were available.

## **2.4 The Interview Process**

The 44 interviews took place mostly in people’s homes, although 8 were done in other places like coffee shops (3), the workplace (1) and the university (4). They took between 60 and 90 minutes each, including the 24-hour diet recall at the end. Signed ethics forms were obtained from all participants, and all interviews were audiotaped with permission. I took notes during the interview as well, on the questionnaire itself. Dates and times were planned afterwards for the two other diet assessments by telephone. A BLF coupon or cash was given either at the interview or in person after the final diet assessment with a letter of thanks. All forms referred to participants by a code number, and no data or information was linked with participants’ names or addresses.

Each interview started with a new city map<sup>11</sup>. No one had difficulty with reading a map, although map literacy could be an issue and was not taken for granted. First the approximate location of the participant’s home was marked with a stick-on star in order to anchor the process spatially. Then the places where they regularly went to shop for food or eat out (their PFE) were marked with stickers (Figure 2.8 below). As mentioned above, the map served as an elicitation tool to enhance memory and spatial thinking

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<sup>11</sup> Fifty maps of Kitchener-Waterloo were provided free of charge by Coldwell Banker, Peter Benninger Realty, at 508 Riverbend Drive, Kitchener.

among participants. Having the map as a focus for the interview centred interviewees' attention on *place* and reminded them of food locations that were close to, or en route to, other places they regularly visited. It also helped trigger recollection of food places further away from home and possibly beyond regional boundaries, if those were visited regularly. Several interviewees expressed keen interest in the mapping of their PFE, not having thought about their food buying and eating out in such a way before, and they became determined to make it "complete". The second round of questions, meant to elicit meanings of place (and going over the PFE on the map a second time), often sparked memories of more food places that were regularly visited. This suggests that the use of the map in the questioning process likely enhanced accuracy in identifying the PFE and its meanings, more so than a survey would have done.

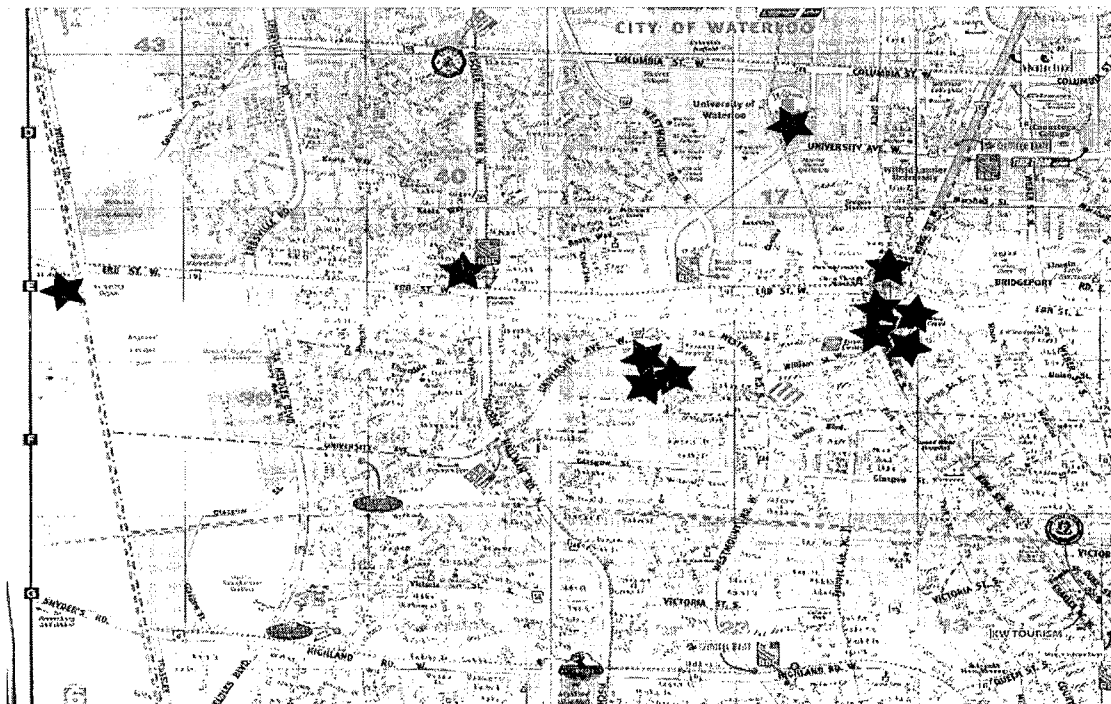


Figure 2.8 Example of personal food environment mapping



Grounded theory requires that in-depth interviews strike a balance between unrestricted open-endedness (what Kvale [2007:12] calls “qualified naïveté”) and a degree of direction – not by forcing responses into preconceived categories, but by shaping the process along the lines of a framework. The interviewer takes control by delineating topics, and at the same time maintains a flexible process so that new emergent ideas can be immediately pursued (Charmaz 2006:29).

Thus, for this study I attempted to elicit participants’ experience about food places in an unfettered way, with the occasional probing for possible social, personal and spatial aspects of their experience if these were not forthcoming. I tried to minimize the latter by setting the stage in the second “round” (after the PFE had been identified) with the following broad question up front:

Next I’ll ask you to help me understand, what is it that makes you go to each of these places over and over? It would be food, obviously, and I’m interested in that, but there might be other reasons, like personal reasons, social reasons, even stories that you have about these places. So if you can mentally “bring me there” with you... I am curious what each place means to you, why you choose it and not somewhere else. I’m also interested to know how often you go there, and how you get there.

Within this kind of descriptive license, and with their personal food environment mapped in front of them, most participants tended to take control over the interview: they decided which place to talk about next, and decided what to tell about it, especially when I showed interest and encouraged them on. I had not anticipated this initiative-taking. Often, voluntarily, they explained their choice of places in context of their beliefs about food or about aspects of the food system. Yet, the degree of descriptiveness varied considerably among the group, ranging from verbose to fairly minimal. I did probe more in the latter type of interviews (which were the exception in this rather highly-educated

group). It is a point of debate whether a minimalist responder suggests a more disinterested view to their PFE or if it might reflect their personality and communicativeness.

When all places in the PFE had been discussed, I made a summary statement similar to, “From the overall picture that you’ve been giving me, what I heard you say about the things that matter to you most about the places you visit for food were... ( key issues and meanings). Is that accurate?” Some participants would simply agree, and others noticed that they (or I) had missed an important issue or a place and filled in the blanks. Overall, I hinted at the general dimensions (subjective, social, spatial) I was looking for, but was continuously open to variations within those dimensions as well as other meanings that did not fit in those dimensions. Later analysis indicated that the interview materials did yield a plethora of different experiences and meanings, as discussed in the next section. In the last part of the interview, about 15 to 20 minutes, I asked seven questions relevant to the PFE (# 3 on the questionnaire in the appendix), six supplementary questions (question #4) and 9 demographic questions.

Regarding question #3d (*Do you ever feel that the places where food is available drive you or otherwise influence you to buy food that you might not have planned to buy?*), this appears to be a leading question; but *not* using the words “drive” or “influence” made the question vague and caused confusion in the three test interviews. That is, if I asked if they ever went to food places or bought food without having planned to do so, almost everyone did that. I was particularly interested in what people had to say about feeling influenced by food places or food items as an exploratory question, since a great deal of the health promotion literature is based on this assumed behaviour. I avoided

judgemental leading words such as being tempted or acting impulsively, but respondents sometimes used those words.

## **2.5 Data processing methods**

### ***a. Processing the interview data***

I transcribed all 44 interviews verbatim from audio recordings to separate Word files, facilitated by *Express Scribe* 4.35 software (©NCH). This resulted in over 400 pages of qualitative data. I then imported all interview files into an *NVivo* 8 program (©QSR International Pty Ltd.) and created 44 cases. I also created a *casebook* in NVivo, a spreadsheet of attributes with assigned values for all participants (23 attributes, including age group, income range, number of children, years in Waterloo Region, BMI values, weight status, HEI values, HEI quartiles, total number of places visited, eating out times/month, preserve food Y/N) . This set the stage for qualitative and quantitative analysis.

I used a *constructivist* grounded theory approach (Cresswell 2007:65; Charmaz 2006:130), which examines how participants construct meanings in specific situations, and also acknowledges that researchers analyze data by creating constructs. This approach is used to build interpretive theory, which aims to *understand*, through multiple emergent realities, rather than to *explain* or seek causality (Charmaz 2006:126). I undertook initial qualitative coding by assigning segments from the interviews (called *references* in NVivo) into *free nodes*. This is similar to *open coding* in the more structured grounded theory approach of Strauss and Corbin (1998). I started with the broad themes of subjective, social and spatial dimensions, but added other emergent themes that did not match those dimensions and seemed worthy of special classification (agency, determinism, food beliefs, children, sense of place, etc.). During this process, in

NVivo *memos*, I documented the various theme-specific and theme-differentiating factors that became apparent throughout the process. In keeping with Charmaz' interpretive approach, I noted the repetition of key words, phrases and issues to which participants seemed to attribute particular value and meaning.

When all interviews had been processed and coded into themes, I launched into the process of *focused* coding. I returned to each free node, added it to the *tree node* section of NVivo, and then constructed a number of *child nodes* or subthemes that emerged from within each theme (similar to *axial* coding in Strauss and Corbin 1998). I assigned about 1,050 coded quotations, an average of 24 per interview, from the tree nodes to child nodes that fit and new ones that were needed to capture distinct threads. Most quotations were assigned to more than one subtheme (for example, one quotation could be added to the personal dimension and also to the agency theme). Again, I created memos to keep track of emergent definitions and meanings as they evolved throughout the process. Table 2.1 at the end of this chapter summarizes the themes and subthemes that I identified, and that I analysed in Chapters 3 and 4.

While coding, to make a key point, I applied Charmaz' (2006:55) recommendation to "take the familiar, routine and mundane and make it unfamiliar and new". I suspect that everyday food-buying activities from the individual point of view have been neglected in research to date because of their simultaneous ordinariness, complexity and personal nature. Insights came, for example, from the way the realities of travelling with a toddler might alter one's perspective on the food environment; or from the way people dealt with the food choices on campus or at the workplace. Other insights emerged out of meanings attached to routine routes and special routes, how people created their own

spaces at coffee shops or felt comfort in talking to producers, and from the importance to people (or not) of social eating out and community feelings around food-buying.

Contrasts and contradictions surfaced among individuals but also, not uncommonly, within the same individual.

As a whole, this method may appear linear, but in reality it developed in an iterative way with my continuous re-thinking of what the categories represented. I re-categorized many quotations/ references during the process of coding as subthemes/child nodes were re-defined, added, merged, split or removed. After some time, the themes and subthemes seemed to “settle down” into categories that captured similar meanings of respondents and that I felt were defensible. Kvale (2007) calls this the legitimate process of “spiralling backwards” as earlier stages are returned to (42). In grounded theory, the *saturation* point of category development is reached when new information can no longer be found (within the data) that would improve my understanding of the category” (Creswell 2007:240).

This analytical process created the themed, coded body of material (7 themes and 40 subthemes) that I drew upon for the conceptual framework and for Chapters 3 and 4 of this study: an analysis and explication of personal meanings of place and sense of place. I selected direct quotations from my NVivo database to illustrate points made throughout these chapters. While drawing information and meanings from the data, I was also aware that the forming of themes also came from my own lens on the material, partly from my experience as a professional, partly from my own interests and partly from existing theory, as discussed in Chapter 1. I included these perspectives and research findings in my analysis of the data in Chapters 3 and 4.

### ***b. Exploratory analysis of Personal Food Environment data***

The interviews provided quantitative data about the set of places where participants routinely bought food by total number, type and frequency of visits. The number of participants (44) was insufficient to carry out statistical analysis, but I carried out an exploratory analysis with multiple variables in *Excel* spreadsheets to determine if certain potential associations stood out that could be pursued in further research.

A major challenge is how to characterize the personal food environment. Most people have routine destinations and travel routes to obtain food, but the frequencies of visits and routes differ from each other. Some food-related visits take place daily, others weekly, and others more sporadically over a month. Almost all households buy food to prepare at home, but they do not necessarily use the closest stores to home and work, sometimes travelling long distances for certain types of food. Some people rarely consume food away from home; others do so daily. Within this intrapersonal and interpersonal variation lies rich information related to diet and meanings of place. An attempt to discern food activity spaces that represent the PFE with GIS mapping techniques or by measuring physical distances may be possible in other studies that ask more specific research questions, have larger sample sizes and use different data collection tools. This study, however, may set the stage for other types of studies by indicating the range of variation that can occur among certain variables and identifying some of the challenges in characterizing key variables. Data analysis with attributes of the PFE together with demographic data are presented in Chapter 5.

### *c. Nutritional data analysis*

The data for this study included three dietary assessments or 24-hour recalls per participant, each of which is a detailed list of everything a person ate and drank the day before (self-reported from memory, with probing)—as described in section 2.2(c) on the dietary assessment tool.

The first step in the nutritional analysis was to translate all the individual foods into *nutrients* that are required to calculate the *Healthy Eating Index* or HEI (unsaturated fats, saturated fats, sodium) as well as total calories. I did this by entering each item and quantity into *The Food Processor* program, ©ESHA Research 2009, choosing items from the database that most closely resembled these foods<sup>12</sup>. I chose items from the embedded Canadian Nutrient File database whenever possible, especially for processed foods, for which nutritional content can vary substantially from American counterparts. The second step was to estimate (by hand) the number of servings in the food groups required for the HEI, for each 24 hour recall: total fruits and vegetables, whole fruit, dark green and orange vegetables, total grains, whole grains, milk and alternates, meat and alternates, and “other” foods (alcohol and foods high in fat and/or sugar without substantial contribution of micronutrients).

These data for 132 diet recalls was ready to be translated into points for 11 different sub-categories to calculate the HEI (maximum 100 points). Garriguet (2009) adapted the range of scores and scoring criteria for the HEI according to *Canada's Food Guide to*

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<sup>12</sup> I gratefully received a license to use the ESHA *Food Processor* program from Dr. Rhona Hanning of the Department of Health Studies and Gerontology, University of Waterloo.

*Healthy Eating* (CFGHE)<sup>13</sup>, which differs from the scoring criteria for the *Dietary Guidelines for Americans*. The number of points allocated to each HEI component differ by gender and adult age group (19-30, 31-50 and >50 years). I prepared my own HEI calculation charts for each of the 6 age/gender groups, based on the number of servings for each group specified in the CFGHE. These charts are in the appendix. For each 24-hr recall, I entered the number of points calculated for the 11 HEI components into a spreadsheet, which calculated the total HEI score for that recall. I averaged the 3 HEI scores for each participant. Thus I obtained a single HEI score for all 44 participants, which is an estimated (but rigorous) measure of dietary quality. Further analysis using the HEI values is in Chapter 6. Table 2.2 at the end of this chapter lists all the HEI scores.

## **2.6 Reflection on methods and process of analysis**

The flowchart in Figure 2.9 summarizes the research process for this study. My raw data was collected verbally through one-on-one communication with 44 residents of central Waterloo in the summer of 2009—a diverse group in many ways. Initial analysis of these interviews and the 24-hour diet recalls provided me with four sets of primary data: (1) personal food environment information in Excel spreadsheets characterizing each PFE by the number of different places regularly visited, total number of visits to food places per month, and number of monthly visits to each type of food place (grocery store, bakery, farmers market, restaurant, etc.); (2) about 1,000 segments of text (quotations) categorized in NVivo by themes and subthemes; (3) diet quality data in for

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<sup>13</sup> Woodruff and Hanning (2010) prepared a similar adaptation of the HEI for Canadian children age 9-13 and adolescents (the HEIC-2009) based on the new *Canada's Food Guide for Healthy Eating*.



the form of average HEI scores for each participant; and (4) demographic information and body mass index data.

Collectively this represented a “mixed methods” data set that was ready for secondary analysis. It was sourced from a non-probability sample of people who are fairly diverse in terms of age, income, family composition and duration of residence in the region, but highly educated on average. The data collection and first stage processing was time-consuming and yielded a rich body of information. It confirmed to me that centering the topic around personal place was an effective way to elicit information about experience, because it is what people know best, and experience occurs at places. Focusing the topic on food places in particular brought out a plethora of meanings, which may not have emerged from an interview purely about food beliefs or food shopping practices in general.

As well, the large variation of PFEs that emerged from study participants (in terms of their magnitude and scope) provided useful material for an exploratory study. The idiographic nature of this study was also helpful because it left the proximal built (food) environment a relative constant. The four types of complementary data set the stage for future studies in a similarly-structured manner. Replicating this study in different neighbourhoods in the same city with similar study populations, as well as with demographically different study populations (e.g. more culturally diverse or of lower average income) would provide an interesting source of comparison. The focus on place and meanings about the food environment is important because it is changing continuously in terms of the food options that are available to people.

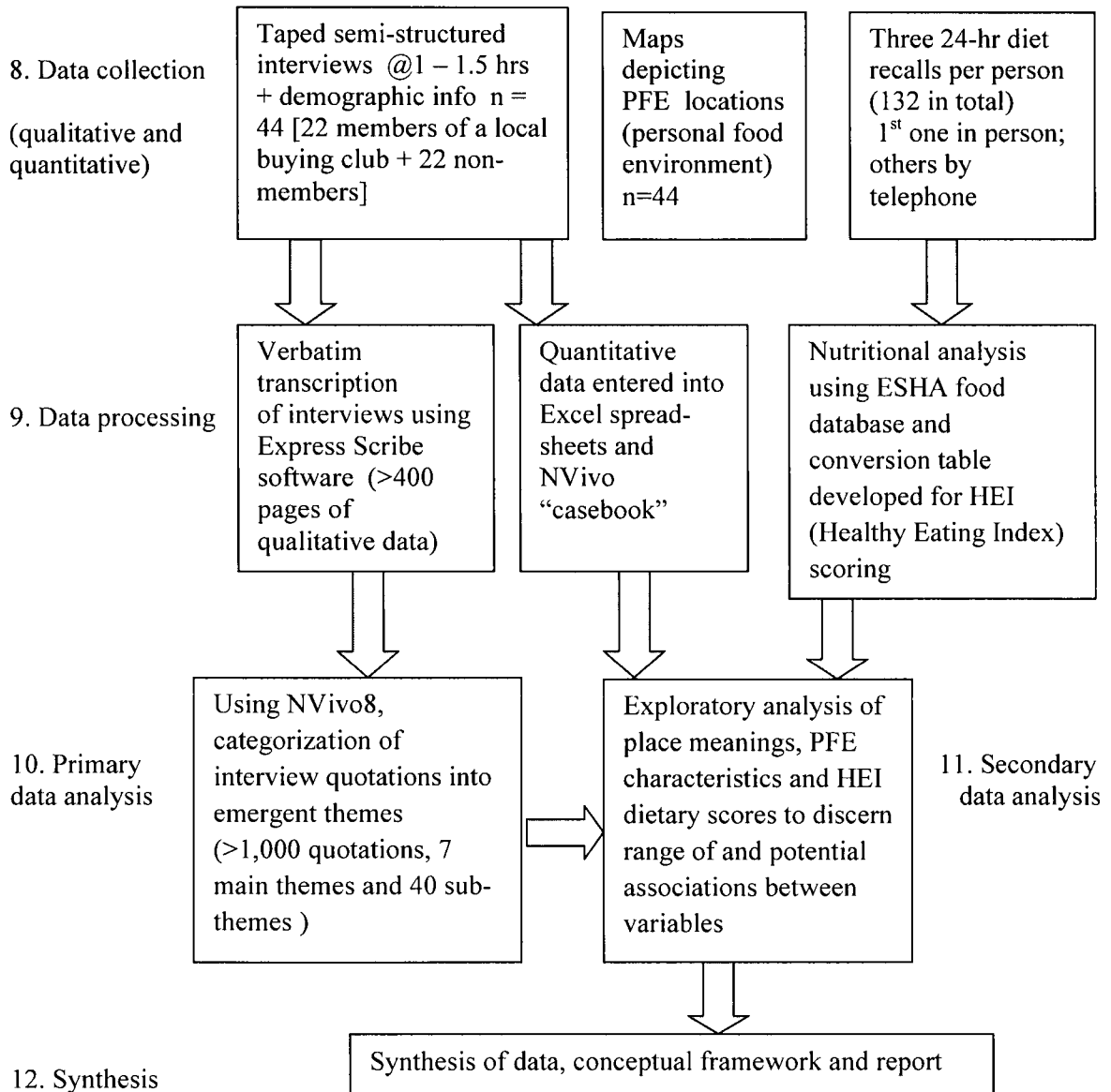
**Figure 2.9 Dissertation Research Process 2009-2010**

*Steps 1 – 10 are in Chapter 2; step 11 (secondary analysis) comprises Chapters 3, 4, 5.*

**A. Research preparation**

- |                                       |  |
|---------------------------------------|--|
| 1. literature review                  | 5. ethics approval   |
| 2. thesis proposal                    | 6. pre-tests   |
| 3. form development                   | 7. recruitment of subjects in neighbourhood (ads and flyers) |
| 4. identification of study population |  |

**B. Research Process**



**Table 2.1 Themes and subthemes that emerged from the interviews through grounded theory analysis**

<b>Subjective meanings of PFE* (142)</b>		<b>Social meanings of PFE (154)</b>		<b>Spatial meanings of PFE (280)</b>	
Expressions of emotions and feelings related to a specific place that are the reason for going there: e.g. feelings of familiarity and comfort; trust/ confidence, reducing stress, providing peace of mind, sense of well-being, personal space or learning space, related to past memories and nostalgia, or negative feelings, the opposite of the above. Expressions about the value/quality of food at a place or personal feeling about the aesthetics of the place.		Descriptions of social, inter-personal interactions that are a key part of the experience at a specific food place and the reason for going there; interaction could be with family members, friends or co-workers, or owners/patrons. Quotes that show a sense of personal connection with retailers or farmers -- expressions of support, respect or concern for their livelihoods as individuals.		Insightful specific place-related quotes regarding: travel issues, walkable destinations; perceived distance (near/close/far); time to travel there (short/long); convenience as in proximity or if a place is visited en route to somewhere else. Special trips for a specific type of food – urban or rural; also routine routes that include food and non-food places.	
subthemes	sources**	subthemes	sources	subthemes	sources
Familiarity, comfort, enjoyment (or not) re the place itself	26	Familiarity, relationship, communication with farmer, retailer	27	Perceived travel distance, walkability	29
Senses relating food to a place	17	Social interaction at place with family, friends, colleagues	26	Routine travel routes to specific places	20
Nostalgia, historical connection with a place	14	Choose retail because small scale, independent, family-run	12	Place chosen because of proximity to home, work, university	23
Learn new things at a place	7	Place with attention (or lack of attention) to social justice issues	11	Quick convenience, drive-through, home delivery	16
Feelings re social, environmental responsibility or the value of food at a place	16	**Sources = Number of participants with at least one quote in this category		Special (but regular) trips for specific food	
Trust, confidence re food production, handling at a place	14			-Urban trips for food quality, special, ethno-cultural, farmers markets	47
				- Place with lower prices	8
				-Urban place that supplies local and/or organic food	16
				- Rural – farm or store	20
*PFE = Personal food environment					

**Table 2.1 (con't.) Themes and subthemes that emerged from the interviews through grounded theory analysis**

**Sense of Place**

<b>Sense of Belonging to place (163 quotes)</b>		<b>Intentionality, active involvement (139 quotes)</b>		<b>Impulsiveness and determinism (112 quotes)</b>		<b>Sense of Connection to other local and global places (69 quotes)</b>	
Includes ways in which people conceptualize their bonds to the neighbourhoods where they live, work, learn and go for recreation, related to food retail. Formed from both positive and negative experiences. Quotes about access to food and envisioning an optimal food environment came from questions asked of all respondents.		Comments about ways of taking charge or control over one's food environment. Includes individuals' plans, deliberate choices for food procurement in general – both short and long term, both personally or as a community. Pertains to individual food-buying strategies or those intended to improve the food environment.		Comments about opportunistic behaviour, spontaneous interactions, spur-of-the-moment food spending. Individual food-buying decisions and how people feel about this tendency (or not) within the food environment.		Comments about food and food places with respect to connections elsewhere, e.g. local/imported food (link with place of production); environmental, social justice, animal welfare, GE food, organic (links with places where food production or processing occurred); also ethno-cultural meanings of food (link with other geographical places).	
sources		sources		sources		sources	
Sense of community	19	Influencing food-buying environment		Spontaneity at restaurant, bakery, coffee shop	27	Local food source connections	17
Access to food in Waterloo Region - <i>sufficient</i>	33	Supporting small local business	13	Unplanned food purchases in grocery store	19	Global vs Canadian food connections	13
Access to food in Waterloo Region - <i>insufficient</i>	11	Constructing or envisioning alternative models, changed zoning	8	Healthy food in store, market, buying club, CSA unplanned, roadside stand	19	Ethno-cultural food connections	6
Optimal food environment; envisioning place	44	Requesting new foods in store	3	Work or university, no food from home	16	Environmental issues - global	9
Sense of exclusion, alienation	19	Food-buying related actions		Resisting impulse	17		
		Preserving food	31				
		Planning food destinations	20				
		Eating by season	15				
		Active learning re source of food and food system	11				

**Table 2.2 Healthy Eating Index (HEI) values for all study participants by age and gender**

	HEI #1	HEI #2	HEI #3	Ave HEI		HEI #1	HEI #2	HEI #3	Ave HEI
<b>Females age 19-30</b>					24	81.5	74.3	72.3	<b>76</b>
1	36.1	43.3	58.2	<b>45.9</b>	25	86.6	63.4	69.7	<b>73.2</b>
2	56.1	76.3	77.5	<b>70</b>	26	61.1	90.5	62.4	<b>71.3</b>
3	79.6	72.3	80	<b>77.3</b>	27	67	74.6	81.7	<b>74.4</b>
4	62.3	51.4	52.2	<b>55.3</b>	28	56.9	62.7	74.4	<b>64.7</b>
5	36.3	47.7	37.9	<b>40.6</b>	<b>Females age ≥51</b>				
6	80.4	82.9	81.7	<b>81.7</b>	29	49.1	44.1	53.3	<b>48.8</b>
7	79.8	71.8	90.2	<b>80.6</b>	30	72.5	76.4	65.3	<b>71.4</b>
8	65.5	51.4	66.3	<b>61.1</b>	31	70.5	63.1	58.5	<b>64</b>
<b>Females age 31-50</b>					32	90.3	89.1	90.5	<b>90</b>
9	63.3	60.5	61.7	<b>61.9</b>	33	43.2	67	53.7	<b>54.6</b>
10	72.3	93.3	58.9	<b>74.8</b>	34	64	38.9	49.3	<b>50.7</b>
11	78	64.2	69.5	<b>70.6</b>	35	86.4	80.5	86.5	<b>84.5</b>
12	77.6	80.5	82.3	<b>80.1</b>	36	73.6	67.5	71.8	<b>71</b>
13	84	82.2	76.1	<b>80.8</b>	<b>Males age 19-30</b>				
14	70.2	65.8	52.8	<b>62.9</b>	37	70.7	54.2	65.4	<b>63.4</b>
15	52.5	70.4	57.6	<b>60.2</b>	38	77.2	47.8	58.9	<b>61.3</b>
16	79.4	81.4	77.4	<b>79.4</b>	39	51.1	51.4	59	<b>53.8</b>
17	83.9	86.8	98.5	<b>89.7</b>	<b>Males age 31-50</b>				
18	57.6	46	57	<b>53.5</b>	40	63	63.8	62.9	<b>63.2</b>
19	80.3	71.1	57.1	<b>69.5</b>	41	52.2	41.3	65.8	<b>53.1</b>
20	69.8	79.5	76.6	<b>75.3</b>	42	72.8	82.7	85.9	<b>80.5</b>
21	69.2	68.5	78.2	<b>72</b>	43	82.4	92.6	87.6	<b>87.5</b>
22	59.1	44.2	57.7	<b>53.7</b>	<b>Males age ≥51</b>				
23	55.5	71.3	48.2	<b>58.3</b>	44	83	72.5	69.8	<b>75.1</b>

## Chapter 3: Meanings of place in the personal food environment

### 3.1 Introduction

The analysis in this chapter centres around the relational meanings that emerge using *person-place-food* interactions as a lens. The hour-long interviews with 44 subjects about the places they visited routinely to buy and consume food (their PFE or personal food environment) offered a rich source of information about the meanings they attributed to these places. The main research question I addressed in deconstructing this data is: “What relational meanings are embedded with individuals’ interactions with the food places they routinely visit?” This inquiry resulted in the identification of three broad themes (subjective, social, spatial) and their fragmentation into multiple subcategories of meaning, many of which reveal common threads among people from diverse backgrounds and demographics. These are summarized in Table 2.1. The analysis also revealed meanings or conceptualizations about the broader food environment that were arguably part of *sense of place*. These include a sense of belonging, a sense of agency, and a sense of connectedness between places, both local and global; they are discussed in Chapter 4. The above meanings and dimensions of place are represented in the conceptual framework (Figure 1.4).

The search for meaning of place through food is a hermeneutical enquiry—a process of interpretation that involves the interpreter and the interpreted, as well as broader context derived from other published research (Johnston et al. 2000:334-35). In this chapter, I have brought together three vantage points: the voices of interviewees; my own analysis or distillation of what are to me important distinctions and commonalities;

and relevant topics from the published literature that provide context from broader social, psychological, geographical and cultural perspectives or from the findings of parallel types of research.

For example, in setting the foundations for *person-environment-behaviour* research, Amedeo et al. (2009) made the following assertion about space (which they use with a similar meaning as place):

The meaning of space to humans experiencing its effects in activities and experiential contexts does not depend directly on space's inherent physical properties but rather on translations of those properties by individuals engaged in processing context information in which those properties are an inextricable part (Amedeo et al. 2009:12).

This understanding of place/space is ontologically significant, as it complements human experience of space with its physical reality. It also has epistemological consequences for how place is studied, namely that mixed methods are essential.

Examining meanings of place through the lens of food leads to different distinctions than those which focus on place meaning derived from landscape, home, regional history, cultural tradition or personal experience in general. For example, Manzo (2005), in the area of urban planning, has explored people's emotional relationships to place *in general*, in order to learn about the kinds of places that are meaningful to them and how they develop meaning, both positive and negative. Qualitative analysis (in-depth interviews conducted with 40 participants) revealed five themes related to experience in place: evolving identity; privacy, introspection and self-reflection; developmental/transitional markers, bridges to the past; and safety, threat and belonging (74). Only the last two of these meanings overlapped with the subjective meanings from my study related with food buying. Conversely, subjective meanings that were salient with respect to food places,

such as trust and confidence about the food sold there, or feelings regarding social/ environmental responsibility at place, were not identified in Manzo's study. Another grounded theory study on meanings of place, in the area of environmental psychology, identified three main "poles": self, others and environment, around which were "mapped" the dimensions of distinction, valuation, continuity and change (Gustafson 2001:10).

It is clear from such comparisons that place meanings are multivariate because they draw upon multiple aspects of daily life in the past and present. The dimensions of meanings that are revealed, and the constructs that the researcher derives from them, depend on the types of issues that are focused upon, the methods used and the questions asked. This does not mean, however, that any study is remiss because it does not reveal what other studies do, nor that a goal could be attained which would exhaustively map all possible meanings of place. It suggests, rather, that studies on meaning of place must be explicit in their lens and intention, without claiming to provide an all-encompassing answer. As Patterson and Williams (2005:362) have argued, multi-disciplinary contributions to an area of inquiry, offering divergent epistemologies and diversity of perspectives, can cumulatively enrich the debate on complex concepts like place.

The construct of the PFE is a unique lens on place: it is comprised of a set of routinely visited places specific to an individual which is a subset of the built environment—chosen on the basis of relational meanings allocated to it or derived from it by that individual. Cook and Crang (1996:140, my italics) noted the potential of food to highlight meaning: "foods do not simply *come* from places... but also *make* places as symbolic constructs, being deployed in the discursive construction of various imaginative geographies". Thus food, in its various forms, pathways of distribution and options of



access, imparts meanings to place and also contributes to sense of place in a unique manner. This has been depicted in the conceptual framework (Figure 1.4). According to Relph (2008b:311):

Each place is a territory of significance, distinguished from adjacent and from larger or smaller areas by its name, by its particular environmental qualities, by the stories and shared memories connected to it, and by the intensity of the meanings people give to it or derive from it.

These components of place as a construct made up of stories, memories, meanings or environmental aspects could all be exemplified through food buying and eating out. A physical location such as a food court in a university or a farmers market in a community, in spite of their central presence, would mean nothing to a person unless made meaningful through regular visits. The next section will illustrate sub-themes of the subjective dimension of place as they emerged from the interviews.

### **3.2 Subjective dimension of the personal food environment**

When asked to “talk more” about the locations they had identified on the map as places they routinely visited to buy food, people often expressed the meanings these places held for them in terms of feelings they experienced or values that were reinforced while being there. Positive emotions were cited as reasons for returning repeatedly, and negative emotions were related to not returning (e.g. places could be described as “warm and cozy” or “cold and alienating”). Familiarity and comfort were most commonly noted; also feelings of trust, confidence, reducing stress, or providing peace of mind or a sense of well-being (e.g. “a great place to read and write”). Places were often related to past memories and nostalgia; rural places were sometimes linked with a personal desire for learning more about farming issues.

Food itself has commonly been linked with emotions, particularly with “comfort food” or with sense of place, territoriality, ethnic culture or work culture (Cook and Crang 1996; Lockie 2001; Valentine 2002). Almost no research, however, has focused on the feelings brought on at or by the individual locations where food is sold or eaten out of home. Most food stores or restaurants make an effort to appeal to customers in various ways, but people find diverse individual meaning there depending on their experience. Six common subthemes emerged (flagged as “nodes” in NVivo) from the 142 quotations that exemplified aspects of the subjective dimension of place. They all represented reasons that these places were chosen as part of people’s personal food environments.

**Table 3.1 Subjective dimension of places with respect to PFE**

	people	quotes
a. Familiarity/comfort/enjoyment (or not) re: the place itself	26	56
b. Senses relating food to a place	17	24
c. Nostalgia and historical connections about food at a place	14	18
d. Learn new things at a place	7	8
e. Feelings re social/environmental responsibility when buying food at a place	16	19
f. Trust, confidence about a place re: food production/handling	14	17

***a. Familiarity/comfort/enjoyment re: the place itself (26 people; 56 quotes)<sup>14</sup>***

Over half of the individuals in the study had chosen one or more places in their PFE in great part because of the feelings of comfort, security or pleasure that they evoked. All

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<sup>14</sup> The number of people and quotes attached to subtitles comes from the grounded theory analysis. The number of people refers to those who made at least one comment that I ascribed to this subcategory. The number of quotes indicates the total number of comments that I felt added to the understanding of each subtheme. This provides a sense of the degree of importance that each subtheme was given by the interviewees collectively.

places in one's PFE would be familiar by definition, but the quotations in this category stand out because they describe a particular sense of well-being that came from being at a certain place. Sense of place is more widely understood as a *general* sense of belonging to the culture/norms/tradition/ landscape of a larger defined area rather than individual locations (Agnew 2005: 89). Yet when people in this study talked about the individual places they were familiar with, they were quite clear about the attributes that endeared these specific places to them (or repelled them), or what the experience of being there felt like.

Twenty three people particularly expressed feelings of comfort (or lack of it) associated with food-related places; for example:

St. Jacobs market, you can walk around for a good half an hour and always see something new. It feels like it's in the country, like you're out getting some fresh air and see some entertainment.

The St. Jacobs market... now it just feels so commercial, and there's so much junk you have to wade through before you get to the food. There are too many people, and I just find people are unhappy and grumpy and they push each other and I don't like it.

We usually sit downstairs at [pub] in the evening. It's just a very unique setting, and it's really cool in the winter time when it's all snowy out, and you feel like you're in this cave and it's all warm and cozy. A lot of people go there, so it's very vibrant and alive.

It's just a breakfast joint - it's counter food, you know? What brings you back is that it's really friendly and really warm. I guess it's a greasy breakfast, it's bacon and eggs and potatoes, but... at 2 AM like after we've done a gig at the Boathouse, it's very comforting, and the atmosphere is just so great.

Four people recognized and describe their attachment to certain places by reflecting on their own habitual, even ritualistic, patterns of behaviour:

Why I choose one market over another? It's more about what I know, what I'm comfortable with. You feel better about your outing when you know what you want, where to get it, you know the people.

The Second Cup on University... oh, that's several times a week. Cause my husband and I, just before we go to school, we'll go get a coffee. We make sure we get up early so we can sit there for about half an hour, then head off. It's like a little ritual to start the day.

At the Kitchener market it's usually exactly the same things that we get: a particular kind of meat from a particular butcher, and a particular kind of cheese from the cheese monger, and he [husband] gets the buns from a particular baker.

For example... if I'm out near Conestoga Mall, then I wouldn't go to the Zehrs supermarket in Conestoga just cause I'm there. Cause I don't like that Zehrs. I like *my* Zehrs!

Food-related places had intensely personal meanings for eleven respondents because of non-food related activities they associated with that place.

When I first started teaching at Brigadoon, I would need to go out for a cigarette at lunch time, so I'd go for a beautiful ride through the country (*laughing*). I'd have my cigarette in the car and then get my egg salad sandwich from Coffee Time. But I still go there for a sandwich just because I like to take a ride through the country, even though I'm not smoking anymore.

Sometimes I go to the Heuther because they have like lots of nooks and crannies you can sit by yourself, which is fantastic. I'll go there because it's a place I can go and read and work on my laptop. It's that kind of a place.

I've been hanging out at the Second Cup for a long time. I used to do a lot of music, so I would just sit and compose. It's at the university, so you'll have all kinds of people coming in, all kinds of exchanges happening around you... and (*whispering*) you can eavesdrop. It's not even about the coffee! Which is funny... but I guess that's how a lot of places work.

Eighteen people said they frequented certain places because they provide stress relief, relaxation or even a mood boost; for example:

Tim Horton's... when I'm out doing errands, inevitably [baby] falls asleep in the car. So then I can go through the drive-thru and get a coffee and just sit and relax in the laneway (*laughing*) until she wakes up! That's the main reason why I go there. That happens 2 or 3 times a week, probably, yeah.

And I find it is a stress relief for me to go to Bailey's [local buying club] every week, and I feel that it keeps with my beliefs and my philosophy and my values. I'm with like-minded people, who are really good people.

City Café, I go there at least once a week. And of course I go for a bagel... but I love the environment. It's so friendly and welcoming... it lifts my mood to go there. So I go there as often as I can. (*chuckling*) I usually bike over there by myself, without the kids.

Such personal meanings indicate how some places can arguably be part of a conceptual “therapeutic landscape” for some (Gesler and Kearns, 2002:133), in a health promoting way. Commonly such landscapes are visualized as natural green spaces or ones that conform to norms of aesthetic beauty; but this concept has also been applied to indoor healing environments for palliative and long term care (Williams 2007). The above comments from this study suggest that therapeutic environments can occur at a variety of different places within the built environment—even a booth in a restaurant or a quiet coffee in a laneway. Conversely, suburban landscapes with malls and chain outlets have been said to contribute to a sense of *placelessness* due to their standard, formulaic quality (Relph 1976). What makes places meaningful, however, and possibly comforting, relaxing or ritualistic in their effect, becomes apparent from individual stories and experience at places that may seem outwardly nondescript. An example of this is a qualitative Montreal study of free-living psychiatric patients who use fast food outlets as a refuge where they can sit for extended periods of time and which are open late, providing warmth and cheap food (Knowles 2000:222).

***b. Senses relating food to a place (17 people, 24 quotes)***

The senses of smell, taste and sight of food are key aspects of place-making. The memory and expectation of these various senses are a key part of the mental construct of the PFE. Recognizing this, Relph (2008a) extended the notion of sense of place to *sense of a place*, acknowledging the multiple cues which lead people to remember and value a

place. Since his definition below would be strongly exemplified by food-related places, *taste* could be added to this list.

Sense of a place “refers to the faculty by which we identify the properties of specific places and appreciate the differences. This faculty...combines seeing, hearing, smelling and touching with memory, responsibility, emotions, anticipation and reflection” (Relph 2008a:36).

For this study, inclusion of a quotation in the subjective dimension of the PFE required an expression of feeling or emotional dis/connection to the food at a place. Seventeen of the 44 participants talked about how food created a sensory meaning for that place (in terms of taste, sight or smell) and became the reason for them to return there regularly. These quotations do not refer to food in isolation of the place where it was bought, nor to the availability of that food in general, but to how sensory aspects of food helped to make a place unique, desirable or undesirable.

Oh, at Mambella’s, Gina makes the most *amazing* paninis. And her pasta is *to die for*. She does the lasagna with really thin noodles rather than the thicker ones. There’s lots and lots of layers of the little thin ones. Oh, *yeah*. Her food’s fantastic. (*respondent’s emphases*)

At work (*as a teacher*) I don’t buy food. Never. Like when I’m at school, like who would want to eat in the cafeteria? At WCI, that is nutritional homicide! It’s just grotesque, just frozen crap that they fry up. oooughg.

The Martin Family Fruit Farm - that place is like, “well, since I’m out this way anyway, I’ll just pop in there”, especially when I feel like smelling apples. (laughing) I go into the store, and it’s, whooooo, apples!!

These flour tortillas at the Kitchener market – all organic, I think they were vegan... and just simply delicious, you know, they picked them up fresh that morning from their neighbour. People go, “this is the food we grew”. The produce looks magnificent ... vibrant, especially now that it’s in season – broccoli heads, peaches, carrots, kale. That gets me invigorated.

Several other geographers have acknowledged the role of sensory cues in terms of the “embodiment” of place, where sounds and other senses can conjure up place

associations and the other way around (Thrift 2003:103; Cook 2006; Valentine 2002; Longhurst et al. 2009). In this dissertation study, these associations often represented as pleasurable experience of place, but were also linked to feelings of aversion because of sensory or health-related attributes of the food and/or the place.

Eating out [at the university plaza] is such a guilty pleasure for me. Very guilty. I don't know, I just feel bad eating out. I feel like it's worse for me, more oil and salt than I would put in the food myself. But it tastes great.

When I work out, the Swiss Chalet is right there across the street on Weber. If it's 7:30 and I'm tired and hungry, and I smell those smells... then I think, "OK well, I'll get some chicken and I'll try to be decent about not getting fries".

The old bulk food store – I don't go there partly because it smells bad. And some of the flours – I think it's because they're milder-smelling flours – you open the bag and it smells like plastic. So it's really disgusting and I don't want to eat it.

Last year I bought lots of peaches. It was so nice. This year the fruit season just started and I'm so excited. In Japan fruit is very expensive, and each peach has a separate wrapping. They are very sweet and so nice, but here, you can just eat peaches any time you want.

Thus the sensory cues themselves are a complex mix of purely hedonistic qualities (e.g. taste), cultural/traditional associations (e.g. milk in a glass bottle, peaches that evoked memories of Japan) and learned notions that drew some people to the colourful, noisy bustle of a farmers market and others to the hygienic array of produce at a grocery store.

*c. Nostalgia and historical connections about food at a place (14 people, 18 quotes)*

De Certeau, in arguing that place (what he calls space) comes from practice and experience of everyday life, identified memory as one aspect of what results in "spatial appropriations":

Places are fragmentary and inward-turning histories, pasts that others are not allowed to read...symbolizations encysted in the pain or pleasure of the body. 'I feel good here': the well-being under-expressed in the language it appears in like a fleeting glimmer is a spatial practice (de Certeau 1984:105, 108).

About one third of the people in this study had lived in the Region for twenty years or longer, and the personal meanings they attached to some of the places in their PFE had accumulated over time. This long term association with place often translated into loyalty, trust and going there out of familiarity and habit. Such places became more than locations to buy food, but repositories of memory. Memories were still alive about food places that no longer exist, and nostalgia was expressed about foods and flavours from the past.

I've shopped at Vincenzo's since they were at their old location at Bridgeport Road, for at least 30 years. So, of course I would shop there, for many reasons. Because it's tradition, because I know their stock, because I know the people that own the store. So if I am looking for cold meats or special cheeses, then that's where I go. Instead of grabbing a mound of rind with a plastic hand, like in the grocery store, you get it sliced exactly the way you want it.

Organic Meadow in the glass bottle – oohhh, that's what I remember milk tasting like when I was a child. You know, my grandparents had a dairy farm in Pennsylvania, and so I grew up in the summers drinking the milk right out of the tank. That's what I remember: cows grazing on grass and that's what their milk tasted like.

I was raised near Exeter and one of my first jobs was at a canning factory. Exeter had a canning factory for Aylmer and Del Monte, and some other no-name place. And all the farmers around would grow peas and sweet corn for those factories, and that's what they canned there. Well that factory is now closed. I still like canned vegetables but I know they're not from here anymore, and they don't taste the same.

Meanings of places associated with memory of the distant past also presented themselves in terms of relationships with owners and loyalty to these places that became the main reasons to return. This is discussed in the next section on the social dimension of the PFE. It is also connected with sense of belonging which is addressed in Chapter 4.



*d. Learning new things at a place (7 people, 8 quotes)*

Seven people in the study talked about their personal desire to learn more about food and the food system as a whole, and were attracted to certain places because it helped them with that goal. It attached the possible meaning of novelty or adventure to place, which counter-balanced the pull of familiarity and tradition that other places had. Learning also included trying new foods at ethnically-specific restaurants or market stalls, and returning there routinely to taste different products or meals.

Buying food on-line from the farm, for me it opens up a variety of food that I may not have chosen before. But there they are on my screen: the leeks, kohlrabis...so it expands my horizons a little bit.

BLF (*Bailey's Local Foods*) changed my routine a wee bit. Not a huge change, because I have been getting my fruit and veg (sic) and meat from small growers and local farmers. How it's changed me is that it has made Bailey's my first choice. I see what's on offer that week, and make my selection, and what they don't have, I get at the other places. It's also exposed me to different things, like last week I got white carrots! Never had white carrots before. Also purple peppers, and purple beans. Also for sharing information, like I had no idea that you could make a coleslaw with kohlrabi. I'm going to give that a try. And it also encouraged me to try preserving – or canning even – as well as organic.

The place where I get food from the most has been Seven Shores over the summer because they have a weekly food basket. For \$25 you get like a heavy load of local healthy vegetables which is nice, a variety of vegetables too. Um... it forces me to cook things that I don't often... like I wouldn't know how to cook it otherwise. Sometimes they give you recipes or I'll look it up on the internet. Other times I make an assumption about what it's like, and I just figure out how to cook it. Like normally I'd just go and buy tomatoes and lettuce and cucumbers and stuff. But in the basket I'll get like patipan squash and weird forms of broccoli I've never seen before. It's cool!

The above quotations are compatible with how the “slow food” movement characterizes its adherents as “alert consumer(s), filled with curiosity, who (want) to take part at first hand and learn” (Petrini 2005:15). Murdoch (2006) contrasts this with how fast food spaces “construct distracted consumers who know little about the standardized products” (176). These purposefully polarized extremes can be viewed metaphorically,

representing how “differing parts of the food sector appear to be heading off on opposing trajectories of development” (161), and how people are attracted variously to those trajectories.

Seven additional respondents mentioned they routinely visited specific places that they felt enabled their children to learn about value, source and health-connotation of food.

[Vincenzo’s] is a great way for kids to learn about food, because the produce is low, as opposed to the grocery store where it’s all up high. So we can look at the food and [daughter] can say, um, “why don’t we get this?” or “what is this?” or... you know, it opens up dialogue about food. Which is great for kids because I want to teach them about making healthy choices. And then there’s things like cookies—that are also down low, which is fine, she can look at them and talk about them, and sometimes she’ll ask if we can buy cookies and then I’ll say “sure”, or “not today”, that type of thing. So we do that on a regular basis.

I like the kids to meet the farmer. We lived in a rural area of New Brunswick for 10 years before we came here. So for us it was really important to just get to know the people who grow, and see how they live, and how hard the work is. So a morning of picking strawberries gives them some appreciation of that.

The whole family goes to the market. We take our boys as well. They make the transactions themselves, so they learn. Our oldest one is 9, and he makes all the transactions. I force him to do that, he doesn’t offer to do it. (laughing) But now he has connections with the people that he’s buying the food from. The vendors are patient, and they have gotten to know us.

Learning about food, then, if it is an experience that people value, makes them include certain places in their PFE for that reason. It also incorporates the possibility of change through learning at a place. Learning about the food environment and the food system may be a stimulating aspect of buying food, but increased knowledge has also resulted for some people in a new feeling of social or environmental responsibility when

choosing places to buy food, as well as feelings of trust and mistrust in foods, which comes out in the next two sections.

*e. Feelings about social/environmental responsibility or value of food at a place (16 people, 19 quotes)*

Sixteen participants expressed personal feelings they had when buying food at certain places that allowed them to mentally “connect” to growers or small-scale, family or independent operations. To them, having this food available at these places resonated in terms of the perceived inherent ethical *value* of the food, which some said they were willing to pay more for. (This imagined connection differs from actual social connection with farmers or owners, which is discussed in a later section.)

It has been argued, in the context of globalization, that “constructed meaningful knowledges about food commodities and their geographies... become a crucial means of adding value to those commodities” (Cook and Crang 1996:134). According to Clarke N et al. (2007), “ethical consumption” in the UK is a phenomenon mainly among people already disposed to sympathise with certain causes, who can then extend their commitments into everyday consumption practices (more so than that the availability of fair trade items, for example, might persuade people into “ethical” consumption).

Similarly, in this study some individuals constructed their own meanings of place based on broader knowledge about food available there:

I feel like a lot of people devalue their food. They think they’re paying a lot but really they’re paying only a small fraction of what the food’s worth. Whereas with Bailey’s [local food co-op] you really get a sense of what the food’s worth. You’re buying right from the farmers, there’s no subsidies, no government hand-out to change the price, basically.

I love that community feel and that's why I like supporting Bailey's. It's a sense of self-responsibility in a building.

So if I can get a lot of things in season, locally, I prefer to do that because it sort of feels like that's the right thing to do.... I don't know if that's a good enough explanation. Not that I have any sort of link to farmers or farming other than we live in a farming region.

Watching her business (*Bailey's Local Foods*), I think that's kind of neat. You know, supporting her, supporting the local farmers... it's sort of a feel-good place. Seeing that local food all laid out – I do enjoy that aspect of it.

To me it's a different type of food, a different quality. It's a... like for example, I buy their tzaziki all the time. And it's made right there at Vincenzo's, and it's fresh ingredients. There's a mass-produced quality in what you get at Zehrs versus what you get at Vincenzo's. It's a different way of consuming food, and it's a way of eating that is more consistent with our family beliefs.

The Exhibit Café has well thought-out ethical food. And spending money there is like going to support a good cause, in the sense of, um, it promotes a vegetarian diet... which is apparently healthier and better for the environment. It's like organic, locally grown when she (*the owner*) can, it's going to support a bunch of people. So I'd say it's more like the ethics of the café which make it stand out.

Expressions such as “self responsibility in a building”, “a feel-good place”, or a place with “ethical food” directly link personal values to place, mediated by food bought there. This *food-values-place* relationship is particularly of interest because it embeds a sense of connection to the places of food production, the source of the food's perceived value, and also to the interests of others. Consequently I discuss this further in the section on “sense of connection” in Chapter 4.

***f. Trust, confidence about a place re: food production/handling (14 people, 17 quotes)***

About a third of participants mentioned at least once that a personal feeling of trust was a key factor in choosing certain places to buy food. One student stated in his interview that for him, in general, “peace of mind, comfort, sense of well-being comes from traceability of food”. This feeling may be a fairly recent phenomenon, and may be

on the rise due to an increase in the number of food recalls as well as books and media stories about questionable practices in the food industry (Pollan 2006; Schlosser 2002). Freidberg (2003) has pointed out that worry about food due to its ability to cause illness is now magnified by its potential for environmental degradation and ethical dilemmas about social justice (6). Trust may be an important personal meaning of place that merits further research, because it could underlie other meanings of place that are created, for example, when people develop social relationships with food retailers, farmers or restaurant owners that they feel can restore trust in the food they buy (19-22). The interviews supported this view:

The organic food, when you buy from her [Nina of Bailey's Local Foods] you can trust more that they are grown pesticide-free and organic than you can trust it at the farmers market. Not that I'm accusing anybody, but at the market, it's a couple of people removed from the farmer. But I know Nina has directly contacted all these farmers and has a relationship with them. I have a trust-factor with Nina.

I'm very dubious about the entire meat sourcing... I've just read too much. So knowing that there is accountability and there is a ... how do you describe it? ...I can ask him [the butcher I always go to], and he can direct me to the farmer who raised the animal. He knows the farmers that raise the meat that he sells. There's no middle man. He's the butcher, and I really feel that much more confident. We don't eat that much meat, but when we do, I'm happy that it's not some anonymous creature packed in cellophane in the grocery store, pumped full of... what do they put in? Some type of chemical...

The gelato at that place is really really good, like you know what the ingredients are... if it's chocolate it's really chocolate. If it's fig, it's really fig.

Personal trust in food may be one of the biggest drivers for people to try specialty, rural and alternative food sources. Buying clubs and CSAs were the main way for people to get more trusted food close to home, but most drove longer distances for that. This is discussed in the section on spatial meaning.

*g. Summary of subjective dimension of PFE*

In summary, guided discussions about food and place can yield insights into a diversity of subjective meanings and can point to commonalities that exist among a group of people, such as feelings of comfort, nostalgia, learning, ethical responsibility or trust. Most likely, those meanings are not front and centre in people's minds, nor do they explicitly guide the choice of places where to routinely buy food. The mental construct of the personal food environment is built upon feelings from the past, personal experiences or interests in the present and concerns about the future. As well, a discussion on feelings of exclusion from certain food environments, as expressed by interviewees, is provided in a later section.

The extent to which participants in this study expressed personal feelings in connection with places where they bought and ate food varied. In the interview they were asked once, after identifying their routine food places on the map, if they would talk about each place and explain why it mattered to them and why they went there routinely, including any stories or personal, social or historical reasons for choosing that place. It was up to the respondent to express what came to their mind when thinking about each place. In the analysis, the proportion of places in their PFE for which respondents volunteered information about their personal feelings ranged from 0% to 100%. Nine percent did not talk about feelings related to any of the places in their PFE, while others expressed subjective dimensions to most or all of the places they visited.

Expressed feelings varied by type of place as well. Chain grocery stores, for example, were seen by some as little more than repositories of food items to be gathered and paid for as efficiently as possible (no subjective dimension mentioned), and some

noted how a superstore felt too huge or cold; yet others commented about how comfortable they felt at *their* superstore. Drive-through restaurants were regarded by some as a quick, habitual place to get coffee en route to another place, but by others as a place of respite (in the car) to be enjoyed while children were contained in the back seat or while a baby slept. Other places like specialty or small family-run food stores were more often described with personal feelings such as trust, senses of smell or taste, or fervent descriptions about familiar or favourite foods provided there. Thus, even though food is the object of consumption at all these places, different meanings are felt for these places by different people. This is a significant point in light of the tendency of much current research to typify food stores as either desirable/healthy or undesirable/unhealthy.

### **3.3 Social dimension of personal food environment**

Almost every model or paradigm that depicts a deconstruction of place or sense of place includes a social component. Giddens (1984) proposed the concept of *locale* as a setting for social interaction. Agnew (1993) positioned locale as distinct from *location or sense of place* (263) by emphasizing that social interactions do not happen against a backdrop of place, but actually make place and can transform it. As discussed in Chapter 1, the social dimension of place has most commonly been interpreted as the impact of social structures or the development of situated social norms, or in general as places where society can interact and function. It is less common to examine how individual meanings can emerge from social interactions at a specific place, being created at a moment in time, but retained in memory over time to build attachment to a place so that the two become intertwined.

Thus, social interactions that have occurred and can be anticipated at a place help define the meaning of that place for an individual. This dimension of place differs from the sensory, emotional or cognitive aspects that characterize the subjective dimension of place, although they naturally overlap. When interpersonal relationships become connected with a certain food-related place to such a degree that they become a main reason for going there, then they represent an important social aspect of the personal food environment. The most obvious places for this to occur would be at restaurants, coffee shops and pubs, but as this study showed, social interaction was identified as a key reason for choosing other types of places in the PFE as well.

NVivo analysis of quotations in the social dimension led to four main subcategories:

**Table 3.2 Social dimension of place with respect to PFE**

	people	quotes
a. Familiarity, relationship, communication with farmer, retailer	27	66
b. Social interaction at place with family, friends, colleagues	26	56
c. Choose retail because small scale, independent, family run	12	16
d. Place with attention (or lack of attention) to social justice issues	11	16

Interviewees in this study were clear when certain places they visited had a minimal social dimension for them, indicating that they recognized this dimension by its absence. Typically they might say, “I just go there to buy food, and I want to be in and out of there as quickly as possible”. Experiencing crowds of people at a market, for example, or line-ups at the cashier, would then not be seen as an opportunity to interact with people but as a nuisance or a frustration which might become a deterrent to visiting again. Other examples show that the social aspect can be consciously excluded at places which are visited regularly for other reasons.



Well, I don't go to Bailey's [Local Foods] to socialize. I'm in and out. I'm not volunteering there, because I can't commit time, because I would always have to back out, which isn't fair to them.

I really like the Valumart, and they've just started carrying a lot of great organic stuff. But to be honest, I work and I live uptown, so that when I go to that Valumart I see a lot of people I know, and I don't always want that when I'm shopping. So when I go there it's a matter of keeping my head down and not looking. Sometimes I just don't feel my best, so I wouldn't want to, like, run into people.

Conversely, many more people, when asked to talk about the reasons they returned regularly to certain food-related places, launched immediately into a description of the interpersonal relations they experienced and valued there. Socio-cultural connections that linked local places with other people of similar or different cultural backgrounds were an aspect of this dimension. It also included situated interactions with family members, friends or co-workers, as well as with owners or patrons. The social dimension also involved direct connections with farmers at retail venues or the farm – expressions of support, respect or concern for their livelihoods as individuals. I did not categorize expressed support for farmers or retailers *in general*, either local or global, as a social dimension of participants' PFEs, because it represented a personal principle on an issue such as social justice rather than an interpersonal relationship.

Other studies have pointed out the importance and even dominance of social interaction in determining choice of places for food shopping and consumption. For example, interviews with low income consumers in Coventry, UK, revealed that they tend to use “traditional” (smaller-scale) shopping facilities rather than newer shopping centres, so that “factors relating to consumer’s social interactions with other people were hypothesized as crucial in influencing their use of particular retail locations” (Williams and Hubbard 2001). A Toronto study in an ethnically-defined neighbourhood reinforced

this tendency, concluding that “a Chinese supermarket is more than a grocery store to the Chinese—it conveys nostalgia and is imbued with cultural values and practices, and serves as a social setting where Chinese identity is constructed, reinforced or negotiated” (Lo and Aoyama 2009). The participants in my study, although demographically diverse, did not include enough subjects from a particular ethnic or income group to identify meanings common to such a group, but most of them did mention ways in which social interactions were critical to their inclusion of certain food places in their PFE.

*a. Familiarity, relationship/communication with farmer, owner, retailer (27 people, 66 quotes)*

Grounded theory analysis revealed an almost equivalent degree of expression among respondents concerning social interactions with owners, retailers or farmers at specific food places as with family, friends or colleagues whom they met at a food place (Table 3.2 above). This seems surprising, in light of the disconnect that is generally recognized to exist between consumers and the production/distribution of their food that has resulted from the commoditization and globalization of agriculture and food over the past half century (Atkins and Bowler 2001; Feenstra 2002:100; Lind and Barham 2004).

This disconnect between consumers and operators has been reflected at places of consumption themselves over the past several decades, as chain grocery stores and restaurants, in the interest of efficiency, have tended to hire workers with fewer skills and at lower wages, leading to high staff turnover and minimal interaction with customers (Winson 1993; Murdoch 2006:165). Yet, opposing trends have developed concurrently at a smaller scale; for example, Murdoch has described the contrasting global slow food

movement which “aims to build new sets of relations in the food sector, relations that tie consumers more intimately to the culture and environments of production” (176).

In reality, most people likely experience a range of types of social interactions with retailers and farmers in their personal food environments. For example, all participants in the study bought food at large grocery stores, but only one mentioned regular social interaction with a staff person there. However, most people also bought or ate food at places where they did have meaningful social connections with the owner. For example, for several respondents a relationship with a farmer or retailer gave meaning to a place by giving it a human face or identity – even to the extent of conflating the two by referring to the place by the owner’s name, although that was not what the place was called.

Oh, I often shop at Eileen’s. I like going there because we have a relationship with her, and with her staff. They’re very knowledgeable, so that’s where I go and get supplements or grains, for example.

I. So you have a favourite U-Pick place?

R. Absolutely. Her name is Brenda. When I was at the Working Centre I asked, where can I pick strawberries that are organic? So there’s a Mennonite organic farmer, and um, she’s a 20-minute drive at the most, up Erb, so... like not far. Anyway, she’s got a great farm. We always get our strawberries and our raspberries there.

Farmers markets were a common place to link people buying food with the growers and sellers, which is the promoted objective of such places. There were two major farmers markets in the Kitchener Waterloo area at the time of the study, and since it was summer, many participants went there regularly. Both were open weekly in the winter as well. Small weekly farm markets were also established at the University of Waterloo and Wilfrid Laurier University campuses, which were mentioned positively by respondents who were students or faculty.

There's one particular case where I developed a relationship with a farmer so I enjoyed going there (*his stall at the market*). I discovered they were new, the Villeneuve family, and they moved here from New Brunswick just last year. They have the most amazing tortillas and tortilla chips, the most fresh you've ever had, and veggie paté and granola.

In the winter time we go to the market and have long, drawn-out soccer conversations at a Jamaican patty joint... and talk about basketball with Elsie who runs it, and her grand-son plays on my husband's soccer team, and how are they doing, and then you go over and get the apple fritters (laughing)... and then you move on. It's kind of funny, it's just a little routine that you get into. It's familiar faces... I really like the Kitchener market.

Now that's a real social thing because there's all sorts of vendors that we've become sort of chatty with over the years. Like there's Chicken Man and Veggie Man (*named that way by the respondent*), and a woman that used to work at Laurier that has the chocolate place there, and there's the guy that my friend always buys her lamb from. So there is a real connection, sort of being part of that social thing?

Communication with farmers at rural farm stores was valued, and often a reason for going there in addition to fresh food. In some cases this social relationship was related to trust in the food, which blends into a previous subjective category.

My next stop is Stemmler's meats out in Heidelberg, because I know how Stemmler's make their meats and I talk to them about what they put in it.

I was looking for a place to get fresher food, you know, better quality better tasting food. You know healthier, perhaps less, um, industrial if you want, right? And knowing that we live so close to farms, it just seems logical. That [Foodlink] map, I use it. Anyway, the Gerber's place [Oakridge Acres] just seemed to fit what I was looking for. It seems right and the meat was good, so that was why. It's nice to know—it gives you more confidence, I think, in terms of... there's a certain loyalty of knowing people at the farm. It's nice to know the people who are actually grow the food. And, um, if it's a nice day you walk down to the farm...I bring my kid sometimes for that reason. It's not like going to the supermarket.

Urban retail places can similarly become part of PFEs because of the social connection, or fall out of favour (disappearing from the PFE) when these social ties are broken.

I've been shopping at Full Circle organics for 10 years. There's a new owner now over the last couple years, and I have quite a good relationship with her and I like supporting her business. Like they know your name, and they ask about your work, or your baby, or your garden, or... you know, personal things. It's a really nice touch and I feel like she's a

friend, so in that sense the relationship with the manager or the storekeeper, it's really important to me. I like to talk about food and *I like to talk beyond the food*, like where it comes from; it makes me feel better about purchasing there. (my emphasis)

I couldn't imagine not shopping there, when I've been there for years and years... There are lots of M&Ms [meat markets] around, I mean there's another one I think down on Weber and Lexington, which is rather close too. But I go to this one. I feel good about buying from somebody that I know, and knowing that I'm helping her business as well.

The Natural Food Store has changed – it's just like a warehouse when you go in there. I don't know, some of the friendlier people behind the counter aren't there anymore. I just don't relate to it very well so I go less often now.

One respondent talked about the customer-retailer relationship from the sellers's point of view:

So having been on the other side of the counter, I look at cashiers differently, and at servers differently. I can see from their point of view. I love regulars. An important kind of relationship gets established there, a kind of trust. And if something goes wrong, then because of that trust it's easier to clear it up and fix it than if you don't know the person and complain over the telephone. And it's only in smaller places where people actually have time for each other. If there's a lull, you can chat. If there's space to talk in a small place, usually someone will fill that space with talk, which is really nice.

An additional social dimension of food places arises with the provision of ethno-culturally specific food, opening up the possibility of a special type of social interaction with restaurant owners or retailers. The imported food or cultural dishes they offer are central to the creation of a place through global connections, taking the form of unique intersections between the meanings of the food and the personal experiences of both provider and consumer at the time of interaction. Multiple layers of meaning are embedded here, because of what Cook and Crang (1996) call “constructed geographical knowledges” about the foods, the histories associated with their production and distribution, their socio-cultural meanings and use, and the manner in which they are marketed locally, far from their place of origin (132).

In this study, the exchanges that interviewees mentioned about food places were often between people of different backgrounds. A growing number of ethnically-specific restaurants and grocery stores exist in Kitchener Waterloo, corresponding to the growth of immigrant residents as well as to a general population that is increasingly appreciative of global variety in their food.

As for the East African Café, I got to know the guy there. We've talked about where to get some of the flour that he gets, like the "tef" flour they use for their bread. And he suggested how I could improve my own African cooking. He's quite a friendly guy, I quite enjoy him.

The Kitchener Market, that's a family outing on a Saturday, absolutely. And almost without fail we'd be eating lunch there, cause we know the people who run the Mexican restaurant at the market. My wife is from Chile, so she's close with them. One of them's also from Chile. So we chat and make connections there.

Overall, social connections with a seller or owner gave a particular meaning to a place, of a different nature than the emphasis on efficiency, consistency and lower prices that was generally associated with chain supermarkets and franchised outlets. Thus, associations with specific people contribute to a unique sense of place that cannot be replicated elsewhere. However, as the interviews showed, this sense of place through social interaction had the potential to link people in dual ways: first to strengthen ties to the region in which they lived, and second to create or strengthen ties to other countries and cultures when owners or sellers had come from elsewhere. These meanings of local and global "connections" will be further explored in Chapter 4.

***b. Social interaction at place with family/friends (26 people, 56 quotes)***

At restaurants, routine social interactions with friends and/or family, or doing business with clients, were key reasons for going there regularly. Visits to farmers markets or farm stores that had special attractions for families or children became weekly

outings for some. The meaning of these places then became a social “event”, with the food itself being secondary.

I go to the Kitchener market for the social aspect. Yeah. Because I live alone, I work from home, I need to be out with people, and I just love being among people. So that’s my social time – Saturday morning

Homestyle restaurant, I think it’s called - I go there for purely social reasons, with my friend and her 85-year-old dad and her husband, and sometimes her daughter or my son come as well. The vegetables are horrible, and that’s not what I generally cook. But it’s a place to meet regularly in winter time every Saturday, pretty much.

Ethel’s is just a social place – cause there’s nothing in there. It’s not fancy, just 1950s kitchen tables. The design doesn’t matter, it’s just a good space to be chatting – so yeah, it’s a great place to hang out – especially on the patio.

The Dearborn restaurant is where I regularly go after church with friends, it’s kind of a tradition. I think they’re kinda, “oh yeah, here’s that group again!” Cause we usually end up sitting there yakking until, like, they close at 2 o’clock on Sunday afternoon. The other day when we were there, this woman said, “is it okay if we start to vacuum?” (laughing)

Our local coffee shop, that’s where we’ll go to meet business clients because both my husband and I work in a home office in our basement.

The Duke [pub] is family history, because my husband was a soccer player. The Duke had a team when the first owner was there... probably 20 or 25 years ago. Anyway [husband] played for the Dukes – he has a Scottish background, and there’s a lot of Scots and English – although the owner was German at the time. And then it switched ownership, but we continued to go regularly for a meal. My husband knows everybody when he goes in there, and he likes to watch the soccer matches.

Characterising the food environment, then, must take into account more than the built environment and the quality of type of food sold. A major dimension of meaning around buying food and eating out, in both urban and rural environments, is social in nature.

*c. Choosing specific retail as part of PFE because small scale, independent, family run*  
(12 people, 16 quotes)

The small scale of a food store or restaurant, or the fact that it was an independent

business was often linked with a greater degree of communicability with the owners than a chain store, as well as the opportunity for taking a socially supportive role towards that business. These were reasons for choosing certain places that some interviewees regularly visited for food, as the following quotations indicate. Although these are expressions of the social dimension of the PFE, the choice of these places also represents a sense of connectedness to the community, as opposed to the choice of a particular food they would buy there.

At City Cafe Bakery I really like their bread, and again it's a small place, and you know the owners and people that work there, they recognize you when you walk in.

Whole Lotta Gelata. It's close, we love the gelata, we love the fact that it's an independent, it's not Dairy Queen.

And the reasons I picked it is because she roasts her beans locally, and she has quite a variety of coffee. It just a nice, friendly, small place run by the lady who owns it, who actually works there, like she doesn't live in California like some chain of coffee shops.

I like that Eating Well Organically is small, very welcoming, you feel like you're supporting the little guy.

We eat at the Jane Bond and the Princess Café because we know a lot of people there, and it feels good to support smaller people, the little guy as opposed to a chain. At smaller places they will recognize you and have conversations with you, whereas Starbucks is not quite the same. That makes me feel so welcome and comfortable in a smaller place.

Casa Rugantino! I've been going there a lot longer, usually for take-out. It's family-run, and very homey, they're very kind. Like I walked in at closing and they still made up a pizza for me to take home, you know, that kind of touch. At a large place, they would just close the door.

I mean I never go to Starbucks, for example. It's right across the street. Even when friends call to meet at Starbucks, I say I prefer at Gelato (*independent owner*). It matters to me a lot. And the same with Seven Shores – it's owned by local people and they actually have a small store where they sell organic vegetables and stuff that are also produced locally.

This subtheme within the social dimension of place, illustrated here as pertaining to specific places, represents what Massey (1997) would call a “progressive” or



“extroverted” sense of place, or what Relph (2008b) might refer to as a “pragmatic” sense of place. It demonstrates a tendency to include the interest of others in one’s sense of place. The next section reinforces this theme.

*d. Place with attention (or lack of attention) to social justice issues (11 people, 16 quotes)*

A quarter of the respondents (11/44) mentioned that a factor for their choice of a particular place pertained to issues related to the caring about the welfare of others. Social justice “involves meeting basic human needs, freedom from exploitation and oppression, and access to opportunity and participation” (Allen 2008:157). These “social justice” issues, as expressed unprompted through the 16 quotations from these respondents, reflected a social concern in two ways: first, issues pertaining to the store or restaurant itself, in terms of fair wages, proper treatment of staff, supporting the role of women in business or donating their surplus food to local charities; and secondly, more global issues like knowing that the store carries fair trade products.

Raintree, they’re the first place I know that had fair-trade coffee. That was sort of one motivational thing to go there.

City Café, aside from making the best bagels in town (laughing), um, it’s also the way they choose to do business. I think I should point out the whole living wage issue, they pay their staff well, so that was another attraction. When we found that out, we went, “oh good, I’m even more glad that we go there now”.

Ruth from Monteforte Cheese [factory] gets her milk from paying farmers a decent wage—not so that they can just scrape by and pay their bills, but enough so that they actually can make some money. That seems to be her philosophy towards her work. Her cheese is more expensive, but I support all that. Like if the cheese was more expensive and she were taking it all? Then it would be like, “oh, your cheese better be darn good!” But she’s dispersing the money among these farmers, which is right in line with what I want.

The owner of Whole Lotta Gelata, I know personally that he has given jobs to some of the men on the street that are really struggling, like for window washing, things like that. So I have a lot of respect for how he runs the business.

I think that some of what has been done at the St Jacobs market is disrespectful to some of the people there. Like initially it was a Mennonite farmers market, but then the Waterloo side moved to opening on Sundays. So for some of the original vendors, it really put a nail in the coffin for them.

I'm a strong feminist, and I really want to support somebody like Nina who is taking the initiative to run this type of business. It's run by two women and that's very important to me. She deals with a lot of female farmers, and I'm always looking for opportunities to support women and their businesses. So she's a great role model for my daughters.

One thing I should say about the Grain Harvest Bakery, in the sense that they're a good place: they're respectful in that they will donate bread to Food Not Bombs. Big industrial grocery stores generally have locks and compactors, which prevent you from taking the abundance of food that they throw out.

Negative examples of social justice issues were given to explain why a place was avoided, for example:

I really don't know the owner, but in truth I have seen her treat her employees harshly sometimes. And I didn't hear it just once, I heard a few times, people saying she can get nasty. So I started going there less, even though I still do believe in the organic food.

I come from out East, and Sobey's has a really poor record of treatment of people trying to unionize and that kind of thing, so, yeah... so for those reasons I've never been happy with them.

Thus, it is clear that social justice issues are part of the social dimension for some people, a factor that may play a part in their decision to patronize a place or not. In Chapter 4, I will extend the previously-mentioned sense of place characterizations of Massey and Relph, and will argue that meanings of place which relate to others' interests denote a distinct aspect of sense of place.

*e. Summary for social dimension of PFE*

Specific attention to meaning of place that results from social interactions related to food buying/consuming has the potential to reveal unique dimensions of meaning, ones that are place and time specific. For 60% of participants in this study, social interaction with family, friends and colleagues was an important aspect of eating or buying food away from home; however, communication, and even a relationship with retailers, owners and farmers was important to the same percentage of respondents. These interactions could include the strengthening of *intracultural* ties, both locally and between new immigrants and their home country; or *intercultural* links between local residents and foods from other countries. A quarter of the study population chose certain places for food because they saw them as “family-run” or “independent” and therefore distinct from chain restaurants, stores or supermarkets. For an equal number of people, social justice issues such as adequate wages, treatment of staff and the sale of fairly-traded or “ethnically”-produced food were important in the choice of food places.

These meanings of place were not suggested or asked about in the interview, but were expressed unprompted by interviewees. The commonality of these issues among a substantial number of respondents may be an example of how, “from the perspective of narrator, the geographer gains a sense of the *normative* significance of place” (Entrikin 1991a:59). In this case, these articulations may be interpreted as a trend in thinking about food and place that seems to be fairly widespread among residents in the vicinity of uptown Waterloo at this time. The prevalence of such thinking in other areas would have to be determined by other studies.

#### 4. Spatial dimension of the personal food environment

In this study, interviewees often described their perceptions and experiences of food places in ways that were unrelated to emotions or social interactions, but had more to do with accessibility, proximity or perceived distance of food places, as well as how they fit into habitual travel routes or merited special (but regular) trips or outings. Thus the spatial dimension of their personal food environments highlighted ways in which they perceived distance in the physical environment and how it became meaningful in their everyday lives. Distance was not measured in this study. The only quantitative parameters were the number of places of various types in interviewees' PFEs, and the average number of visits per month made to these places (these figures are analysed in Chapter 5).

**Table 3.3 Spatial dimension of PFE**

	people	quotes
a. Perceived travel distance, walkability, bikability	29	50
b. Routine travel routes to specific places	20	34
c. Place chosen because of proximity to home, work, university	23	34
d. Quick convenience, drive-through, home delivery	16	24
e. Special (but regular) trips for specific food		
<b>(i) Urban trips</b>	35	101
• Special trip for specific type of food	8	10
• Special trip for ethno-culturally-specific food	9	13
• Special trip for lower prices	8	15
• Special trip to urban places for local, organic food	16	21
• Special trips to farmers markets	30	42
<b>(ii) Rural - farm or store</b>	20	37

About one third of participants in this study had a PFE in which all or most places were close to home, for multiple reasons such as limited mobility and/or income, having small children, environmental concerns, working at home or feeling reasonably satisfied that they could get most of what they needed/wanted fairly close to home. For five participants, all places in their PFE were proximal, or within their own or neighbouring census tract. Another ten people had only one or two non-proximal places in their PFE. On the other extreme, for nine respondents half to two-thirds of the places in their PFE were non-proximal. I use the word “proximity” in a sense of physical distance, which avoids the interpretable meanings of “close”, “far” or “walkable”. The meaning of “walkable” varied significantly among the group of respondents. Further complications stemmed from the fact that several participants regularly cycled around the city, so would have a different perception of close and far. Almost nobody used the word proximity in their regular speech, making it a useful term for objective analysis. I used this word to approximate the range of travel patterns that existed among the study population, and as a parameter to explore the tendency that people showed for buying/consuming in relative proximity to home, along specific routes to somewhere else, or by taking special trips to these places when they were further away.

Table 3.3 represents the subthemes that emerged from grounded theory analysis of the interviews. They are discussed and illustrated with quotations from interviewees in the subsections that follow. Subtle differences emerged among the closely-related concepts of proximity, walkability and convenience. They share, in slightly different ways, the interrelated issues of perceived distance, mode of transportation and destination or place, and bring in the element of time, as the next sections show.

*a. Perceived travel distance, walkability (29 people, 50 quotes)*

Perceived distance and mode of travel were often talked about as meaningful aspects of place, not just neutral time spent in transit toward a destination. This was especially so for those who walked to food stores or restaurants. For some it was even part of their self identity, as for one who said, “I’m a walking sort of person”. For some of the places they visited, respondents included a descriptor about *felt* distance to get there, which, in a comparative sense, was independent of the actual physical distance or time travelled. Thus, “it’s not far” could refer to a 20-minute drive to a market ten kilometers away, while “it’s quite a distance” could refer to a store a kilometer away for a person without a car.

Ten respondents out of 44 did not own a car, and one additional person (a woman who did almost all the family grocery buying) did not drive although the family owned a car. Ten out of these 11 were in the lowest income group (<\$50,000 family income) and one was in the top income group (>\$100,000). This suggests a close association between income and car ownership in this group, although half of them said they avoided car ownership for environmental reasons. Most used bicycles and/or public transportation, and sometimes relied on friends or family to drive them to further places such as rural food markets or ethnic food stores outside Waterloo Region.

So being able to walk [to the store] is really important. And it actually sort of influences what I buy because I can only carry about \$35 worth of food (laughing). That’s about the average of what I can carry comfortably.

I haven’t actually been up to the market. I mean we really don’t have the time to have 3 hours to go shopping. So a lot of it actually is because I don’t drive, so I have to be able to get there myself when my husband is busy.

Well the biggest reason for shopping and eating in uptown Waterloo is because I don't own a car. Now that's my contribution to the green environment! It's my choice; I decided a couple of years ago that when I retired, which I just did this year, that I would not own a car. It makes me walk. Like I have to walk, and I have to plan, because it's what I can carry at any particular time. So that's why I picked the grocery stores that I do.

We don't have our own car. We're part of a car-sharing organization, but I'm not interested in reserving a car every time I need to go and get some groceries. So having things in walking distance is a big priority. And we walk a lot, we're definitely a walking and cycling family.

Seventeen respondents did have a car but said they often walked by choice, for many different reasons: environmental or health benefits, enjoyment, walking with children; avoiding the stress of parking, saving money, being able to drink alcohol and not drive, or preferring the spontaneity of buying food daily. Four respondents said they had deliberately moved to uptown Waterloo because of the opportunity for walkable destinations.

I just moved, so I'm still learning my neighbourhood. But I have switched my patterns dramatically. Yeah, because walking to where I buy my food is important. So that was our primary reason for moving, to keep a more pedestrian lifestyle.

I actively look for places that I can walk to, so that I don't need to drive to get food. That's an environmental decision.

When I'm not working I don't want my car. Like I've been on vacation for 3 weeks, and my car has probably put 10 kilometers on it. And so that's important. So as you can see, we go to Valumart for most of our grocery shopping just because I can walk down there a couple times a week. I don't have to load up the car with a week's worth of groceries. I can run down there and grab, you know, stuff for dinner tonight, and be back home in 20 minutes.

I can't predict when my son's going to be here. So it's easy for me to do the grocery thing on a day by day basis. It's like, "oh I'll go and get chicken for tonight". I go frequently and I walk, usually, unless it's last minute.

Same with restaurants and pubs, we want to be able to walk down there, have a meal, have a drink, and walk back without worrying about using the car.

I like to cut down on driving for many reasons, including cost, but also stress – I don't like to drive in traffic or look for parking. And I like to walk, I've always walked. I think I was

a student for so long that I'm just used to not having a car, so you walk! (laughing) It keeps you healthy, and that's good.

In spite of the fairly close access of a variety of food stores in uptown Waterloo, about a third of the respondents almost always drove to buy groceries or eat out.

My favourite lunch restaurant is close to the school but I drive. I often have yard duty at lunch time, so in the wintertime I might have a 30-minute lunch, so I have to drive to get lunch. To go anywhere I usually drive.

Travelling to food stores was an issue for the 11 people (25% of group) with babies or preschoolers; it increased food shopping needs but put constraints on mobility.

Well, when I'm looking to get out of the house, maybe there's one item to buy at each of those stores. So instead of taking the car where I have to unload the kids each time, I walk and do everything in one trip. The kids are in a stroller so they are contained... it's easier than parking, unloading the kids, walking to the store with the kids loose, and maybe take a cart. When everything is sort of centred around the stroller, I find it's easier – even if it's a little more work initially to walk with the kids, it makes the shopping experience more enjoyable (*chuckling*). So as you can see, my life is centred around the stroller – and it can only hold one or two bags of groceries. If it's more than that, I'll take the car regardless of where I'm shopping.

Places in the personal food environment were imagined spatially in different ways in terms of time and energy to get there, as the next set of quotes indicate. A place, for example, could be perceived as a destination at the end of a pleasant walk (a distance that's "worthwhile" because it leads to a favourite type of food experience), or as "out of the way" due to construction or lack of public transportation.

The quality of produce is not ideal in the supermarkets, which is why I go to the St Jacobs market, but it's not an option year round because everything (at the market) is imported from the US. So in winter I wouldn't bother to go there at all. It's *enough of a distance to get what I find worthwhile* in the summer, though.

For groceries I also usually go to the Beechwood Zehrs. It's interesting... the construction along Erb has stopped me from going there. It's *out of the way* now for some reason, it's not as direct. Just fascinating how a little construction can really mess up a place.



The descriptors “close”, “far”, “quite a drive” or “quite a walk” apply to relative and individually-perceived distances, but they lend meaning to a place and can contribute to the likelihood of going there or frequency of visits.

See, Vincenzos is not far... but for some reason since it's on the other side of King, it makes it appear further away.

We love walking, so going to TJs fish place *wouldn't be a long walk for us*, about half an hour.

So there's a Mennonite organic farmer, and um, she's a 20-minute drive at the most, up Erb, so... *like not far*.

There's a new Chinese place out along Erb in that plaza at the edge of town where the traffic circle is (about 1.5 km away). But I haven't tried it, because *I don't like going out that far*.

Yeah, I really like to stick to places *close to home, like anywhere in Kitchener-Waterloo* (5-6 km radius). So I won't drive all the way out to Cambridge or something to go to a restaurant.

I prefer the Beechwood Zehrs (about 1 km away), but I don't go there too often, like about once a month, because *it's too much of a drive*.

Yeah, if I have a bit more time to shop for food, if I'm not like, “oh I just really want to get this over with”, then I'll go to Zehrs—*it's not that far a drive, like it's not a huge excursion*.

I go to Meme's [bistro] with one of my sisters, or my mother, quite often. Or my husband. It's *quite a drive*, all the way to New Hamburg, and we understand that, but – it's worth it.

To Sobey's it's *quite a walk*. I mean if I'm going just to pick up one item, and I come back, it's easy. But because I only shop once a week, I can't carry all that stuff and walk for half an hour, so that's why I drive.

Overall, what can be learned from the way people talk about what distance means to them is that it is personal, relative and variable. A main source of this variability is time-related, as is evident from how people often equated distance with time spent and how much they valued that time. Making population-wide generalizations based only on physical distance between people and locations misses the variability in personal criteria upon which people make decisions about places they include in their PFE. Among the group as a whole, there was a strong interest in walkable food destinations, a research topic that could be pursued to compare perceptions and behaviours in other areas.

**b. Routine travel routes to specific places (20 people, 34 quotes)**

The word “routine” derives from the old French word “route”, meaning the way or the course, suggesting that the same way is always taken. Activity space research recognizes the habitual nature that characterizes much of day-to-day spatial behaviour, as it measures and examines areas of spatial movement for individuals (Sherman et al. 2005; Doherty and Miller 2000; Golledge and Stimson 1997:277-82). The experience of routine travel routes brings a temporal dimension to the meaning of place. It mentally situates a certain food venue as usually scheduled at a certain time of day and day(s) of the week. It also situates it in the spatial context of other places—either as a stop-over in transit between two places (like work and home) or as part of a cluster of places that are often visited sequentially within the same period of time.

The participants in this study, when discussing food places they visited daily or weekly, commonly included a spatial reference to explain this regularity in their lives. Food places were visualized as part of a routine “loop” or a scheduled trip to systematically gather food items on a shopping list, for example. The imagined time connected with that activity depended on the mode of travel, which could range from a leisurely walk to a focussed bike ride or a hurried car trip.

Every Saturday we do that loop. From home to the Belmont Plaza, then downtown, possibly having lunch at Seven Shores. And then we go to the deli and get some meat, the Casa Mia place... and then we walk home.

Vincenzo’s has bread that we like, and cheese, and oftentimes the vegetables. That’s a daily thing, going there, five days a week. I take my son to school, drive to Vincenzo’s, and if I have dry cleaning I pick it up there. So I do a loop. But on Fridays my loop extends to here (*points to Brady’s*), it might be every second Friday, depending if I had ordered some Mennonite chickens for example.

OK, this is literally my routine (*pointing to the map*): once a week I do these two places (*Sobey’s and Amar Halal*) and every now and then this one (*Brady’s Meats*) and then on

my way back from work, if I need bread, or milk or eggs or something, I stop here (*Valumart*). I get into a routine, like I go every Sunday morning or Friday afternoon. I write a list, it's in my purse right now, and I very specifically pick up stuff.

I don't have a car, but I can easily bike to anywhere within town. It just takes time. Say if I'm going dumpstering on Saturday night, like going out to those four bakeries that I mentioned... like I know I'm gonna set aside a good hour for that trip.

I usually don't leave for work [in Mississauga] until 9 in the morning, so I miss the traffic. My husband needs to be at work at 8. So we leave home at about a quarter after seven and we walk down to Starbucks and grab a coffee. And I walk him part way to work (at the university), and then I come home again. So it gives us some exercise and we chat, so we usually stop in there every morning. It's a bit of a luxury, at \$10 a pop. And what we spend there, we save on gas. (laughing) It's our treat, a little splurge.

Respondents gave many examples of food places they regularly visited en route from one place to another. These quotations from different people collectively build a clear connection between the experience of travel with meanings of place. These repetitive activities also suggest the process that gradually gives rise to *sense of place*, which will be addressed in Chapter 4. One's personal food environment, then, becomes a daily experience of place and is also reflected in his or her daily diet (discussed in Chapter 5) – often in a very subliminal way because of its ordinariness.

Vincenzo's is right on my way home, along the bike trail. I normally cycle past there and I'm thinking about bread and stuff (laughing). Probably kinda hungry too, so I stop and buy something there.

I have a son, and he's handicapped, so he lives in a home that's on top of the hill, there? And the Tim Horton's is there, so I stop there on my way to visit my son. I'm coming from work, so I go to Tim Horton's for supper, and I'll pick up my favourite chicken salad sandwich. I always get that, and then I go up the hill to see him.

What my wife does to minimize the trips – she has a swimming class all the way out at Lyle Hallman pool – and so she'll drop by the Zehrs at Stanley Park, so it's just one trip. She always combines things on a trip.

I walk with my children to school at Keatsway, and usually walk back from their school. So because of that I pass the Valumart, so I usually go in there. And I don't go to there as much in summer because the kids aren't in school, so I'm not walking past as much.

And my daughter's daycare is up here really close to my work, so it's part of my route home. So for example we'll stop at Herrle's (*farm store 1 km away*) for vegetables and a treat.

Any time I'm heading out in the morning, and I'm in the car, I'll stop at the Tim Hortons. I definitely don't go in, like it's not a very inviting place to be. It's always take-out for a coffee and a donut. During the week I take my son to preschool 2 days a week and I always stop there on my way.

Normally I go by bus to the Natural Food store on Bridgeport for peanut butter, nutritional yeast, nuts and some produce... I go there about once a week, like I'll swing by because I'm also going to the Bulk Barn, so it's all at the same stop.

Now my son goes to a tutor across the street from Beechwood Zehrs, twice a week. That is why – at *that* time, while I'm waiting for him – I will go to *that* Zehrs and pick up a particular brand of hotdogs he likes and other things too.

I don't think I would ever go to Zehrs on the way to something? Probably not. But Valumart, I would. So if I was gonna go uptown for some reason, like there's a Home Hardware here, and there's a bookstore and a coffee shop... and I play tennis in Waterloo Park a lot, so it just makes sense to pop into the Valumart while I'm there.

Indicating the power of routine, one person never visited a store that was located one block away from her house:

Actually I keep forgetting that we have this deli, Casa Mia, right near here, that my husband loves. For me it's like it doesn't exist – because I just don't walk up Euclid to that particular deli. It's just not part of my route. Out of sight, out of mind.

What is notable about routine routes that include food is how different routes vary: some are close to home, creating a sense of familiarity and belonging with the neighbourhood, while other routes are related to work, school, daycare or other regular activities (e.g. community classes, sports practices, religious services, volunteer work, massage or therapy sessions, family visits) that may regularly take people far outside their neighbourhoods. In those cases, the food places are often opportunistically chosen, secondary to the prime reason for travel. This stands in contrast to other routine routes, where buying groceries and/or eating out is the primary focus and food places are chosen

deliberately. Secondly-chosen routine food places might influence the diet in a different way than those chosen intentionally. A person might be more inclined to purchase items spontaneously or to be influenced by what is there. These contrasting elements of familiarity, intentionality and spontaneity in food routes illustrate how place and diet connect. They are also related to corresponding facets of sense of place which I address in Chapter 4.

*c. Place chosen because of proximity to home, work, school (23 people, 34 quotes)*

Proximity of food places is a deceptively complex issue. It undeniably acts as a key spatial determinant among other factors that influence behaviour. However, it is commonly assumed in spatial analysis that since people prefer to minimize energy spent on the daily task of buying food, proximity of food retail *per se* is therefore the prime determinant for most, if not all, food place choices (Giskes et al. 2007; Pearce et al. 2008). Yet some people in this study consciously refuted this, for example:

I don't think we ever go some place just because it's convenient. Like for instance the [restaurant named] downtown, we won't go there even if it's close, because we find it to be overpriced, and we've had some bad service. We won't go to a fast food place either, because we're not *that* into convenience.

What is unstated is that the urban regulatory environment has purposefully created spatial unevenness of food retail. As a result, what is proximal to people is not always what they want or need, nor what is best for their health. If a city were devoid of zoning by-laws, health regulations, vendor licences or institutional food service contracts, food retail of all kinds would situate proximally to the people rather than the other way around, for better and for worse. Food outlets, restaurants, markets, stalls, street vendors and small to mid-size stores would locate throughout urban neighbourhoods, especially in

areas of highest density—as they do in many parts of the world. However, the current laws that dictate the urban and rural distribution of specified types of food retail reflect a tension between several competing demands: the general desire of wealthier residents for neighbourhoods free of commerce, the need of all residents to access a wide variety of food retail, the essential contribution of the food sector to the urban economy, the need to protect farm land, and the need for food businesses to remain profitable. Within this spatially-uneven food environment, one that embodies an uneven hierarchy of power as well (Winson 1993; Bell and Valentine 1997; Atkins and Bowler 2001; Wrigley and Lowe 2002; Nestle 2002; Mansvelt 2005; Lang et al. 2009), it is of interest to learn how people—as customers, cooks or citizens—react in ways that suit them best or in ways that they can manage given their resources.

Proximity was mentioned as the primary factor in visiting at least one place in their PFE by half of this study’s respondents, insinuating a “place effect”: one regularly goes there because its nearness to home, work or school trumps all else. In this sense, the place is chosen because it provides a needed food commodity or meal close by, and it is inconvenient, undesirable or impossible to widen the choice of places by going elsewhere. It is closely related to walkability, although it is not the same, as not all people walk to nearby destinations.

We do use the little convenience store on Moore. It’s funny, cause they’ve got the worst customer service in there. They’re so rude and stuff, and sometimes we vow not to go back there, but then we still go back because we often walk past there, and we might need bread or something.

I can walk to Valumart in five or ten minutes. For me it’s all happening on foot or bicycle. It’s also close to other things we do, and you tend to kind of group your errands. That’s why Valumart wins over Sobeys.

Our main grocery store prior to our move was the Beechwood Zehrs, which was walking distance. So that was purely proximity, and you could buy anything there. But I haven't been back there since we moved into uptown Waterloo.

It is clear from previous sections of this study as well as other research that many people regularly travel away from their neighbourhood of residence if preferred food is further away (Morland and Filomena 2008; Guy and David 2004). They do this by all modes of transportation, not only in cars. Also noticeable is the variable nature of what people mean when they say they go to a place "because it's close". When proximity is scrutinized for its meaning to people in their everyday life, the multi-faceted nature of this term emerges.

The use of food places in close proximity can start with simple convenience, and if the experience is sufficiently agreeable or effective, can gradually build in frequency until it becomes habitual. Mediating factors include income (high or low) and the types of food store(s) or restaurant(s) in the vicinity of home, as illustrated in the following cases.

I run over to Starbucks daily, *every* morning, for coffee for my husband, because that's what he prefers. It's about two and a half minutes away.

Vincenzo's is moving closer by, just up the street – so we might go there more often. And you know what, when that store is closer, I might just walk down there.

Farrah Foods has pizzas, 5 dollar pizzas, and it's right behind my house. I think we've gotten two in the last week. Like it's really cheap and easy when I'm studying.

In the first case, the woman's task was not time saving, because she made coffee for herself when she got home; rather, it meant for her a daily short morning run and an act of duty for her husband. In the second case, the man was a good cook who loved to use quality ingredients; he expected that frequent trips to a closer Vincenzo's would enhance his cooking experience. In the third case, the student was not inclined to cook for herself,

but the twice weekly pizzas from the place behind her house meant for her a pleasant change from the monotony of canned vegetables (her self-named “desperate stash”) that she otherwise ate for dinner. In these cases, a place in proximity to home added meaning to their daily lives in ways that they might not otherwise have sought out.

The proximity factor is different in cases where choice of food is limited in an area, for people who have restricted mobility for any reason. This pertains to people of all incomes who cannot get the food they prefer or need, including culturally-specific foods or foods required for medical conditions such as diabetes or food allergies. A qualitative study in the UK that explored “life in a food desert” (an area with poor access to food retail) found that families with young children and the elderly were particularly vulnerable, and that coping strategies differed greatly (Whelan et al. 2002). An example from my study came from a young family who preferred organic food for health but could not get it close to home:

Not having organic or local food nearby, we go to Full Circle and EatingWell, meaning longer trips. And especially in the winter, with the baby, it’s really a pain. Like in the past when I was cycling on my own, going uptown or downtown wasn’t really a big deal. And as she gets bigger I’ll put her in the bike trailer. But for people that have young children, it’s an impediment [not having preferred food nearby].

In some areas, highly-processed, low-priced food predominates; such areas have been labelled “obesogenic environments” (Lake and Townsend 2006; Ross 2006). At a micro-scale within cities, this situation typically exists at university campuses and many workplaces with shiftwork, for example (Townsend and Lake 2009; Minaker et al. 2009; Blanck et al. 2009). It may limit choice for those who seek out healthier options within that environment; but on the other hand, many people are simply drawn in to buy



whatever food is available close by, accepting the status quo and the convenience it brings.

I worked in the summer at the university, and mostly I would pick up food on campus when I was too lazy to plan a lunch with leftovers, or if we didn't have enough on hand. I did this regularly enough that I'm kind of thinking, I don't need to be doing this, I could really be planning better and not having to eat out like a crappy slice of pizza or some fatty fries for lunch.

I work shifts at Dare and they have an employee store, and you can get cookies and biscuits cheap if you're workin' there, so now I buy it there, and stock up the pantry. There's also a pizza place in the plaza right next to it. When I worked at Sunlife, they had this fantastic cafeteria, with tons of selection. So I'd always eat there! (*chuckling*) They'd had a pasta area, it's amazing, they had chefs – it's excellent food. But at Dare, they have nothing...just a little lunch room.

Alternative food distribution programs have started to bring different types of food into proximity for urban residents. They create small-scale temporary food places/ environments, by making locally-produced food, which is not highly available at existing stores and restaurants, directly accessible to people in the city on a weekly basis. The proximity of this food was cited as a benefit by nine participants who said they saved them money, time and gas because they would have otherwise driven out to the country to buy local food. For example, being a member of Bailey's Local Foods co-op or community supported agriculture (CSA) groups made this possible, as did the weekly farm markets on the University of Waterloo and Wilfrid Laurier campuses.

After joining Bailey's, I don't have to get into my car to buy food farther away. For the most part, our car sits in the driveway – and I like it that way; we're proud of that.

I think the peanut butter is a good example of something that I doubt many people knew we could get locally. Honey's another thing. I usually would drive out to Hergott's to get honey, but it's still a bit of a drive for me. Maple syrup, sometimes I would drive to the farmer's market just to buy 2 litres of maple syrup from the Mennonites. But now Nina's sourcing my honey and I buy maple syrup from her too. Those are big changes for me, and it saves me time and gas, so even though she's got a 25 percent mark-up, it's worth it.

I wish I could go to St. Jacobs more often, but I don't have a car, so it would take the whole afternoon. But at the farm market on campus, I can take a half hour break from work, walk over and get back quickly.

So the Kitchener Farmers' Market... the reason I'm encouraged to go there is because Monteforte Dairy now has a stand to sell their cheese from Stratford, so that means I don't have to go all the way there (to Stratford) anymore.

Proximity is obviously a factor for all food places chosen that are near to work, home or school; it can be a positive factor when places with desired qualities are nearby, or problematic either when desired food is absent or when undesirable food dominates in the vicinity of daily living spaces.

***d. Quick convenience, drive-thru, home delivery (16 people, 24 quotes)***

Convenience is primarily a time-related concept. The food processing/distribution sectors of food industry have popularized (and capitalized on) the strategy of convenience over the past several decades, creating venues with a culture of ready-to-eat, quick-to-buy expediency (Wrigley and Lowe 2002). Over half of the study participants mentioned at least one place that was part of their PFE because they could rely on it for a quick purchase or something that would make their life less complicated, including drive-throughs and home delivery.

Our little corner store is called Seven Stars – right there on Erb. It's expensive, but occasionally I get a craving for chocolate and just run down there. But often I drive because I'm in a hurry.

Booster Juice – that's for convenience. It's quick, and we'll make a special trip to University for that, about once a week.

[Valumart] is quick, it's really really easy to just stop in and grab something. If we're making dinner and we run out of garlic, then we'll pop in and get that. Valumart is like my neighbourhood convenience store.

Now Fireside, they have a great Greek salad. And that's all I go there for – to pick it up at lunchtime when I'm working and I just want to get out for 5 minutes. They're very fast, and it's close to the school. So there's speed, food's good, and the people are friendly and efficient.

“Quick convenience” was related to the size of the store or market for some people:

Zehrs Beechwood used to be a smaller store, but then they did a big reno and added to it – that was quite a few years back. And it bothered me that they changed my little grocery store. Because now I was kinda fumbling around as opposed to just getting what I need and getting out.

Quick convenience did not always pertain to a “convenience store” or to fast food, but to a general attitude to food shopping destinations. In this sense, it had less to do with proximity of the place to home, work or school than with a general dislike of tarrying, browsing, standing in line, chatting or taking the time to seek out information at a food store or market. It was a subjective meaning attributed to food places that were regularly chosen for their fast service, thus minimizing time spent on obtaining it. It may therefore apply more to an attitude (among some people) towards the food environment that is arguably related to a personal *sense of place* in which food buying is regarded as a minimalist activity. The following section juxtaposes this attitude (or sense of place) with a contrasting one.

***e. Special (but regular) trips for specific food***

In contrast to places chosen for their proximity or convenience, many respondents talked about places in their PFE that merited a special trip, on a regular basis, because they were associated with a certain type of food. “It’s worth the trip” was a phrase frequently used to characterize the meaning of these places, as many felt the need to justify their perceived out-of-the-way travel behaviour. Some of these trips were for single items that were unique to a place, and others were for specific ethnic foods, local or organic foods or for the sake of lower prices elsewhere. Places were sometimes dropped from a PFE because they no longer provided a specific food or meal of interest.

For a quarter of participants (11/44), from one third to two thirds of all the visits they made were to food places outside of their neighbouring census tract. A few people travelled monthly or several times per year to places outside the Region to shop for preferred food.

A tendency to travel further away for preferred food on a regular basis has been documented elsewhere (Morland and Filomena 2008). In that study, interviews with 314 Black, White and Latino residents from 10 Brooklyn Senior Centers were done to determine what types of produce they recently purchased and where, and how much they consumed. They found that over 80% of seniors did not shop within their residential census tract and many travelled regularly over a mile to buy produce. There was an *increase* in daily consumption of fruit and vegetables associated with distance traveled to food stores, indicating (according to the authors) that produce was not proximally available but was considered important enough to travel further for.

In my study, distance was not measured, nor was only one type of food measured (e.g. fruit and vegetables). However, a focus on the *meaning of food places* in terms of distance (perceived or empirical) suggests a different people-place-food relationship when a special trip is made to a store or restaurant than if it is part of a group of errands or secondary to a more important destination. Extra time commitment and planning is required, more so for those without a car. The place is associated mentally as a unique source of a food with a particular characteristic that is important to an individual – a special dish at a restaurant, food that provides traditional taste of another country, food that is prized because it is organically or locally produced, or even food that is lower priced than what can be bought closer to home and therefore offers the possibility to buy

in greater quantity or get a “better deal”. In addition to the 26 respondents who made special trips in the city, regular trips were also made out to rural food shops and farms by 20 and to farm markets by 30 respondents.

*i. Urban Food Trips (35 people, 101 quotes)*

What follows are quotations from the interviews that illustrate five categories of special, routine trips for different types for urban food purchases (Table 3.3):

- *Special trip for a specific food (8 people, 10 quotes)*

The Bulk Barn is on my mental map to source the almonds which I eat daily. Normally I go every 2 weeks for that.

Yeah, I used to live in downtown Kitchener ... so me and my roommate used to go down to City Café Bakery regularly and grab some breakfast. So we’ve really liked the place for a long time. So even though we’ve moved and it’s further away now, it’s worth a trip over there to pick up a nice loaf of bread or some bagels.

David’s Gourmet, um, we go there for the sausage from Québec. They’re the only place in town that carries it, so we go specially over there to get it. Friends who are chefs introduced us to this specific salami which is amazing if you make your own pizza.

I go regularly the Old Kitchen Cupboard, because I’m addicted to their cookies. That’s why I walk four kilometers a day to work and back, so I can have these cookies.

I used to go to the Lotus Tea House about twice a week. But not anymore, because they took my favourite thing off the menu, which was a soup, a beautiful broth with baby bok choy... it was called veggie dumpling soup.

- *Special trip for ethno-culturally-specific food (9 people, 13 quotes)*

Tienda Latina, it’s a Latin store, it looks like a convenience store, it’s near Charles Street in the downtown (Kitchener). And we’ll go there about once a month to buy like specific things that are from Latin America, to make our favourite Chilean dishes.

Ammar Halal... they do sell meat and so on, but I don’t buy any meat from there. I go there because they are the only place where I can find grape zucchinis. They have some of the traditional fruit and vegetables that I eat, like fresh dates, for example, and cactus fruit which I can’t find anywhere else. So I go once a week, actually. And they have the special cheeses, the yoghurt, the traditional ones that I really miss. Of course they have some spices, and some dried herbs as well...and tahini for hummus, and other ingredients that I

need for traditional cooking that I make at home. And some high quality frozen vegetables too, like rosmallo, which no one here knows what it is...(chuckling) and okra, small okra.

And the other place I just think of is the Japanese-Korean supermarket in Mississauga, it's called "Path". My Japanese friend gives me a ride, maybe once in a month. I buy Japanese rice, five kilos. And last time I found some sashimi tuna and some thinly-sliced pork, which I can't find here. And staples like soy sauce or sesame oil, it's much cheaper down there.

My benchmark (*for Middle Eastern food*) is Dearborn Michigan but again it's a larger community that live there. When I lived in Michigan, all these great foods were there...so yeah, I guess I was pampered. But with my [Middle Eastern] passport, it's not easy to travel there now... I mean I have to spend at least one hour on the border, so that's too much for me. That trip used to take me taking three and a half hours from Toronto, but after 9/11 it took four and a half hours, and that's exhausting. Probably in a year or so, when I get my Canadian passport, it might be easy to go. Definitely it is really worth the trip...there are certain specialty stores there that sell certain types of cookies, sweets and desserts, like baclava and so on, that are definitely worthwhile.

- *Special trip to a place with lower prices (8 people, 15 quotes)*

Costco we go to because we have four kids. Milk is cheaper there, and we need vast quantities of milk. And bread. And eggs. So staples are cheaper, I get my meat there because they have meat in bulk quantities, and I freeze it. Um, giant boxes of granola bars, giant boxes of laundry soap, all that kinda stuff.

So Saturdays...it's a good time for the market. If you go between one and four (o'clock) you can get some picked-over discount stuff for cheap. If you want the good stuff you go in the morning.

I eat a lot of stir fry and sushi. So things like the noori and sushi rice and panko crumbs are far less expensive at the Asian Mart than anywhere else, so it's worth a bus trip all the way up King Street.

I'm here by myself... my husband died last year, so it's only me for groceries. Price Chopper I go there specially because I save \$1.20 on my favourite cereal – per box! I buy 3 and save, you know, lots of money.

- *Special trip to urban places for locally-grown or organic food (16 people, 21 quotes)*

So when Nina (from Bailey's Local Foods) sent the e-mail and said, "would you like to do this?", I thought, yes, because, um, I have a lot of friends who do those food boxes or CSAs. They get them once a week, but um, they'll tell me "oh, I got a bushel of beets, or a bushel of kale" and I thought, what am I gonna do with that? My kids are not going to eat beets. You end up giving it away or throwing it out. Whereas with Bailey's, I can pick and choose what I want. And that works out very well, because we bike over there once a week to get our local stuff.

Shopper's Drug Mart, they have an organic food line. It's actually really affordable, for non-perishable stuff. I go there once every couple weeks, and I load up on like organic animal cookies and applesauce for my baby daughter. Their organic milk was why I started going there in the first place.

We go to Seven Shores restaurant first because of the local food, but we went back because they sell interesting food – like the grilled cheese sandwich has pear and maple syrup and local feta.

I like Golden Hearth (bakery). I go there cause they get their grains from a place near New Hamburg, near Punky Doodle Corner. And it's locally milled, and locally grown – which is, I think, a good thing.

Brady's. it's one of the only places that sells local organic meat in the area. So I don't eat everything organic, but like all dairy products and meat, I'm very very conscious about that. I really like the quality of the meat that he sells. I buy organic chicken, beef and lamb from there.

- *Special trips to farmers markets(30 people, 42 quotes)*

We chose the Kitchener market because we were looking for local vendors. So at the market we seek out certain vendors every time that we know. For vegetables we look for ones that are grown as close to Waterloo Region as possible. And then for fruit we include Niagara as being fairly local. We shop at the Kitchener market all through the year.

We started to go to the St Jacobs market as sort of the novelty touristy thing when we've had friends and family visiting from out of town. And then more recently, it's just a decision, if we want to get fresh food then that's a much better place to go, about once a week.

Routinely making special trips for specific foods has a number of meanings. It signifies value put on certain less accessible foods, but also requires planning and time scheduling (especially when buses or rides from others are needed). It also implies a sense of place that is centred around the locations where such foods are available—a personalized space where you know where to get what you want and how to get it.

- ii. Rural trips to farms or stores (20 people, 37quotes)*

There is currently a rising public interest in where and how food is grown and produced, with a corresponding demand for locally-produced food. In the UK, a study

with the North England general population revealed an increase in the number of consumers whose “heightened awareness about conventional industrialised systems... is leading them to buy local foods and/or engage in alternative food systems” (Weatherell et al. 2003). In the US, a major expansion of direct-marketing strategies has been documented over the past decade (Thilmany et al. 2008), as well as a growing level of interest in purchasing food from farmers markets and directly from farms (Schneider and Francis 2005). In Waterloo Region, this popular interest is evident by the rise in number of local community-supported agriculture organizations (CSAs), community gardens, local food buying clubs and urban farmers’ markets. At the same time, there has also been a steady yearly increase in the number of rural food retail locations, as they appear on the Foodlink Waterloo Region map<sup>15</sup>: in 2002 there were 3 farm stores and 32 farms where consumers could purchase food; in 2010 there are 16 farm stores and 77 farms that sell directly to consumers.

Recent studies have offered insights into what motivates consumers to buy direct from farms, in particular perceived food quality (e.g. fresh, organic, hormone-free) and direct interaction with farmers (Brehm and Eisenhauer 2008; Cox et al. 2008; Feagan and Henderson 2009; Hinrichs 2000; Kirwan 2006). Other studies have focused on a subgroup of farm-direct consumers who are motivated by a sense of social responsibility, or belief that support for these local enterprises is in the interest of the public good, in terms of supporting the livelihoods of small-scale farmers and retailers, more sustainable agriculture and improved animal welfare (Lockie 2009; Lyson 2005; Thilmany et al. 2008; Wilkins 2005). Some studies have shown that consumers who engage regularly in

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<sup>15</sup> The local food map can be viewed at [www.Foodlink.ca](http://www.Foodlink.ca).



farm-direct food buying tend to be more educated and affluent (Hinrichs 2000; Landis et al. 2008), but others suggest the inclusion of a broad demographic range (Campsie 2008; Schnell 2007).

In my study, 16 out of 44 respondents travelled regularly out of the city to buy food at farms or farm stores, at frequencies ranging from 6 times per year to 6 times per month. Another four people were members of CSAs (farm-direct programs) and went to the farm once or twice a year. Others might have gone more sporadically, but only regular visits were counted for this study. Nine of the 16 farm-goers were non-BLF members. Two BLF members had stopped travelling out to farms when local food became available instead at the buying club in their neighbourhood.

Social and subjective meanings the farm-travelers attached to these places were similar to the ones identified in the above studies; they included personal preferences such as freshness and taste of food, going “home” (where they grew up or where their grandparents lived), chances to communicate with a farmer and concerns about animal welfare, pesticides, antibiotics and hormones. They also included broader social benefits such as support for farm viability and educating children.

I drive out to Rowe Farms near Guelph about once a month, sometimes more if we are having a dinner party. And what we like about it is that we can get the meat fresh, not frozen, which my husband really really likes.

I should note that sometimes we won't go to the market at all, like when we drive around the periphery (*in the countryside*) there are little stands there that sell corn and other things. From my perspective, the quality of the food from the roadside stands is equal or better.

The Poultry Place (*between St. Jacobs and Elmira*), we go out there...on average it would be twice a month, because I don't really like having a lot of stuff in the freezer. They are the growers and producers of the chickens so we'll go out and get fresh chicken there.

We do Herrle's [country store] almost weekly for a few months in the summer for fresh produce, especially the sweet corn and field tomatoes. I like to get the little Canadian potatoes that you can pick out yourself and that you don't have to get in huge quantities.

I go out to Oakridge Acres (*beef farm near Ayr*). I'm having to go a bit more often until I get a freezer in this new house, but I'm sourcing 100% of my meat there. I thought I'd mention it because it's part of my routine.

So [my husband] and his friend actually went yesterday, they biked all the way to Oak Manor [flour mill], which is down near Tavistock. This is his second time biking there. So he brings a trailer, and he gets like 75 pounds worth of flour, rye flakes, spelt flakes, whatever he puts in his cereal. It's something that we eat every day for breakfast, and it's a large amount...so it lasts us a long time. It's local and it's good quality.

The *spatial* aspect of place meaning that was connected with these farms and farm stores was contained in their *rurality* – getting there involved driving out of the city, driving along country roads and using maps, and giving up the notion of proximity and convenience in order to reach a destination related to highly-valued food. For many the very experience of driving in the country was meaningful in itself, just as walking to a restaurant in the city might be. For one respondent who regularly bicycled long distances on rural roads to a local grain mill and cheese factory, the trip itself was significant as symbolic of his devotion to environmentally-friendly transportation.

Visiting rural food places is linked with *sense of place* (to be discussed in Chapter 4) by including both rural and urban places in the geographical area that is regularly accessed and made meaningful, and broadening people's spatial awareness of the paths of connection of their food to its origins. For some people, the travel experience in the countryside, even if done regularly, was novel enough to make them feel somewhat "out of place" but nevertheless adventuresome. Others, after travelling to a specific rural place routinely for a period of time (especially ones that included on-farm family activities), described their experience in ways that could arguably represent a nascent sense of

belonging there. On the other hand, the five respondents who had grown up in rural Waterloo Region or whose family owned a farm already felt comfortable and “at home” driving through the townships. For them it evoked memories of the past: a time, place, people and food availability that they said was quite distinct from their present urban environment.

***e. Summary for spatial dimension of PFE***

A meaningful spatial dimension of any place was evident in the way people talked about how they got there, the meaning of the trip, how close or far away they felt it was, or about how they perceived its location with respect to other key places. Thus, without actually measuring how far people travel, it is still possible to get a sense of the perceived distance of a food place *as it is meaningful* to the person who goes there regularly. For example, a favourite grocery store could be imagined in terms of “a 20-minute bus ride from home”, a delicatessen as “just down the street” from work at lunch time, a farm store as a leisurely Saturday morning drive, or a bakery as a daily en route stop while cycling home from the university. Conceptually, the trip to a routinely-visited place is part of its overall meaning, placing it mentally in context of the larger physical environment. Proximity was another dimension of spatial meanings: it was expressed as a positive meaning when a place with desired qualities was situated nearby, and as problematic when undesirable food dominated in the vicinity of daily living/working spaces. Some respondents displayed a pro-active attitude to place when they wanted certain desirable foods more closely accessible to them, by becoming involved in change-making actions to various degrees. I will discuss this in Chapter 4 as an aspect of sense of place.

Another key theme that emerged from the spatial dimension of place was the considerable number of respondents who made special trips to places that provided food directly from the farm – either by buying it rurally or at urban buying clubs, CSAs or markets. The number of “buy-direct” visits made a difference in terms of diet, as I later found in the secondary analysis presented in Chapter 5.

### **3.5 Conclusion: Place meanings in the personal food environment**

Physical (built) food environments vary throughout the region, among neighbourhoods and within buildings, offering different opportunities for buying and eating experiences by the people who live, work and go to school there. The wide variety of food venues available, in addition to the various levels of mobility and characteristics of people in this study, led to considerable diversity in the choices they made for places they routinely visited for food—hence the variation in personal food environments. While PFEs could be depicted on a map and characterized quantitatively (in terms of numbers and types of places and visits), insights about the meanings that individuals gave to, and derived from, these places could only be gleaned qualitatively. These meanings shed light on *people* (as agents who purposefully interact with their food environment), on *place* (having subjective, social and spatial meanings) and on *food* (the focus of engagement between people and place for this study).

The following key findings emerged from the analysis of the interviews with regard to subjective, social and spatial meanings embedded in the PFE:

Examination of the subcategories of the **subjective** dimension of different places (Table 3.1) revealed two distinct angles to meanings of place in general. One angle related more to *past experience*, as in feelings of familiarity or comfort that were in turn related to memory, culture, tradition, history and smells and tastes of food. It was related to a sense of place that reflects belonging and community, as I will discuss in Chapter 4. The other angle towards place meanings embodied *change*—it was characterized by the opportunity to learn at places, and awareness about elements of uncertainty in the food environment. Thus, for some people, knowledge about aspects of food production, both locally and globally, led to the notion that one’s food buying choices might make a difference *elsewhere*. This was often expressed as feelings of social or environmental responsibility when buying food, as well as to feelings of trust or mistrust about certain places related to the food sold there. This, I would argue, was also an aspect of sense of place that reflects a broader feeling of local and or global connection, as I will discuss in Chapter 4.

A dual distinction emerged from expressed meanings in the **social** dimension of PFEs. Participants chose certain places routinely because of *direct* social interactions and meaningful relationships with friends, family, retailers or farmers there. However, *indirect* social interactions also were meaningful in determining regularly-visited places, as they indicated the importance, for some, of supporting the viability of certain businesses, or supporting fair wages, locally-produced or fair trade goods, and fair treatment of staff.

**Spatial** elements of the PFE revealed the variable nature of perceived distance in accessing food places, and indicated ties with the time-related issues of convenience,

planning and scheduling. The different attitudes towards time-related distance and corresponding choice of places (e.g. taking the time to drive to fairly distant places for certain foods but considering it “not far”, or, conversely, finding it too time consuming to walk five blocks to a store) suggest an overlap with sense of place. In Chapter 4, I examine the verbal evidence of how some participants incorporated various degrees of planning in their food-buying trips, reflecting a sense of intentionality or impulsiveness within their food environment.

Overall, I did find patterns or threads of commonality among the multiple and wide-ranging meanings that people expressed about the food places they regularly visited, as I had aimed for in my research objectives. The interconnectedness between meanings at *places with aspects of sense of place* was a finding I had not anticipated, but one that emerged from the analysis using a grounded theory approach combined with existing theory about sense of place. The threads I have identified in this exploratory study need to be examined with other population groups in different neighbourhoods, to test their validity and variability.

## Chapter 4: Sense of place with respect to food

### 4.1 Introduction

The previous chapter looked at meanings of place in terms of the construct termed “personal food environments” (PFEs), or set of *places* where individuals regularly went to buy food or meals. It focused on dimensions of meaning (subjective, social and spatial) that participants gave to, or derived from, those individual places. What emerged from that analysis, based on free-flowing responses from interviewees, were integrated *person-food-place meanings* of specific locations in PFEs.

This chapter presents an analysis of the various ways in which personal food environments could arguably contribute to a *sense of place* for individuals. This food-centred approach represents a previously unexplored way to examine or imagine sense of place from an “everyday” vantage point. My grounded theory-based analysis of the interviews supported three possible realizations of sense of place with respect to food. Firstly, it strongly indicated that buying food, which is for most adults a frequent activity that involves a degree of planning, decision-making and knowledge of the surrounding built environment, would create over time both *feelings of belonging* and *alienation* about that environment, depending on the success of their experience. Subjective feelings of familiarity, comfort, cultural tradition (or the negative side of those feelings) related to specific places where people bought food often were indicative of a sense of belonging.

Secondly, the analysis suggested that people’s apparent sense of place seemed to be associated with *how purposefully or passively they acted* within it. For example, some people seemed to feel more reactively inclined toward the food environment, while others

more intentionally adapted and modified aspects of the food environment that they could. Part of people's sense of place, then, may include how satisfactory they perceive the extent of their options for obtaining food were, and to what degree they were interested in change or felt they could change this if they wanted or needed to. This idea became the subject of an exploratory analysis for this study.

I also investigated a third thread around sense of place with this study's data, namely a tentative application of Massey's *global sense of place* and Relph's *pragmatic sense of place* in terms of imagined local/global connections people made at everyday food-related places (Massey 1991; Relph 2008b). All of these layers or indicators of sense of place are discussed in more detail in this chapter.

#### **4.2 Literature review on sense of place**

Sense of place has been conceptualized in various ways since the mid-1970s in the fields of human geography, planning, sociology, philosophy and psychology. Among these fields, some researchers have distinguished approaches to sense of place as a humanist-positivist binary (Stedman 2002; Patterson and Williams 2005), with distinct methodological differences. In my research I lean more in the direction of a humanist approach, but I acknowledge the important contribution that the more positivist angle to sense of place has made by incorporating this concept into other areas of inquiry such as health and quality of life (Eyles and Williams 2008).

On the more empirical side, in the field of social psychology, sense of place has been described as "as a collection of symbolic meanings, attachment, and satisfaction with a spatial setting held by an individual or group...suggest[ing] a social-psychological



model of human-environment interaction” (Stedman 2002:563). This approach seeks consistent definitions for components or measurable units pertaining to sense of place, which then allow psychometric analysis and hypothesis testing. The psycho-social constructs considered to be the core elements of sense of place were recently distilled from an exhaustive theoretical and empirical review of the literature; these were “rootedness, belonging, place identity, meaningfulness, place satisfaction and emotional attachment” (Williams et al. 2008:74). The application of such measurable aspects of sense of place to population health research is a frontier area of inquiry, as demonstrated by a study based in Saskatoon (Muhajarine et al. 2008):

This ‘sense of place,’ often-missing in previous studies, may be a key construct in place-based health research as it may provide the conceptual link between the exogenous area-based variables and the internal biological processes and systems in individuals (57).

This study focused on individual perceptions about neighbourhood, and found that a strong sense of attachment to and active participation in the neighbourhood (which they termed “neighbourliness”) had positive effects on self-rated health and quality of life, independent of the average socio-economic context of the neighbourhood (72-74).

In an earlier humanistic view of sense of place, Tuan brought attention to the subtle, continuous, multi-faceted process by which people develop *place attachment*:

The “feel” of a place takes longer to acquire. It is made up of experiences, mostly fleeting and undramatic, repeated day after day and over the span of years. It is a unique blend of sights, sounds and smells, a unique harmony of natural and artificial rhythms (Tuan 1977:183-84).

This more poetic vision has since been operationalized into the definition of place attachment currently held in the field of environmental psychology, namely “the bonding that occurs between individuals and their meaningful environments” (Scannell and

Gifford 2010:1). In this field, place attachment is considered to be a more measurable subset of sense of place, and has been a popular focus for research because of its applicability to psycho-spatial issues like immigration and relocation, the planning of public spaces, environmental perception, community safety, post-disaster reconstruction and pro-environmental behaviour (Scannell and Gifford 2010; Vorkinn and Riese 2001).

Patterson and Williams (2005:367) have critically examined the wide diversity of epistemological approaches to place, noting for example that “sense of place” is more commonly used by human geographers, while “place attachment” is favoured by environmental psychologists, although both fields refer to generally the same domain. These authors have distinguished (a) the *end-state behavioural* research frameworks commonly used in social psychology that “employ multivariate analytical techniques and reflect a view of humans as rational analytic information processors” from (b) *process-oriented* research frameworks that advocate “holistic methodologies and view humans as actively constructing meaning”. They also guard against the standardization of terminology for a concept as abstract as place, and recommend a “critical pluralist world view... that does not strive for integration” (375).

In the area of human geography, sense of place has been examined with a humanistic perspective in two main ways: first, “the characteristics intrinsic to a place as a localized, bounded and material geographical entity” (e.g. landscape), and second, “the sentiments of attachment and detachment that humans experience and express in relation to specific places” (Johnston et al. 2000:731). Research that links local artisanal food to *terroir* or sense of place is an example of this perspective (Feagan, 2007; Parrott et al. 2002). As well, Lockie (2001) has shown how food can create place identity

(Rockhampton as the “beef capital” of Australia). Numerous illustrations of “you are where you eat”, at the community, city, regional and national levels, are offered by Bell and Valentine (1997) in *Consuming Geographies*. Conversely, other researchers have suggested that the unified foodscape created by global fast food franchises has had a dampening effect on sense of place because of its lack of distinctiveness or authenticity (Relph 1976; Sack 1992:140; Langdon 1986).

Another potential sentiment related to sense of place, one that arises when norms or traditions in a place are narrowly defined, is *exclusion* or feeling “out of place” when those norms are not followed (Cresswell 1996). Examining such a binary (in-place/out-of-place) is useful because it helps identify the parameters of a strong sense of place. Examples related to food include the sense of alienation that people of low income might feel when they regularly confront unaffordable food at grocery stores (Hamelin et al. 2002) or charitable food at food banks that lacks dignity and choice (Tarasuk and Eakin 2005). At the other end of the income spectrum, Guthman (2003) has pointed to the elitist nature of organic food provision systems (“yuppie chow”), although this critique has been countered by Donald and Blay-Palmer (2006:1901) who maintain that “the creative-food industry is not just about promoting exclusive foods for the pleasure of urban elite (but) ...offers an opportunity for a more socially inclusive and sustainable urban development model”. Migrants, immigrants, people with food restrictions and those living in “food deserts” are further examples of residents whose sense of place may be weak due to unfamiliarity and/or unacceptability of the food that is available and affordable to them in their own neighbourhoods, therefore making place exclusionary.

Massey (1993), with an economic/political geographic perspective, contested the focus on place attachment and rootedness because of its inherent potential for exclusion and even violence, arguing the need for a normatively-defined sense of place which is not localized or bounded. She imagines instead a more “progressive” or *global sense of place* as more fluid “articulated moments in networks or social relations” that show consciousness of links with the wider world and integrate global and local ties (Massey 1993:66). This sense of place is meant to “set the inner city in its wider geographical context” and stresses the conceptual connections between places (66).

Relph (2008a) has recently characterised sense of place in such a way that it can encompass both humanist and global conceptions of sense of place. One of the first geographers to write about sense of place, he first gave it a phenomenological connotation as “the entire range of experiences through which we all know and make places” (Relph 1976:6). His current version of sense of place recognizes that people can feel a sense of belonging or attachment to a specific place (e.g. neighbourhood or region) without implying that it is static or exclusionary to others, and can simultaneously feel connected, via aspects of place or social networks in place, to other parts of the world (a global sense of place). Thus he has offered this summary of sense of place over thirty years later:

Sense of place has three aspects, one ontological, one focused on a particular place, and one that opens out to acknowledge differences and interactions between many places. The first has to do with how we grasp being and its relationship to the world; the second provides roots and security; the third mitigates against tendencies to parochialism and exclusion and puts local matters into a larger context (Relph 2008a:36).

It is this composite understanding of *sense of place* which I adopt in this dissertation. Its dimensions fit with the concepts that people talked about in their interviews when they described the meanings that place had for them. Significantly, it

legitimizes the inclusion of sense of place constructs that seem to contradict each other: the sense of community and belonging that many people feel about the place where they live and at the same time an awareness and sense of connection with the broader world.

While respecting the standards upheld in the fields of social and environmental psychology, my study embraces the process-oriented research framework mentioned previously. My area of inquiry centred around a specific aspect of place that is connected with food acquisition, which led to a different set of questions from the ones asked by researchers who are interested in psychological dimensions of sense of place *in general*. To date no published research in environmental or social psychology (including that which stresses the importance of meanings in everyday life) has addressed the food environment as relevant to individual sense of place.

Because the food-at-place approach is a novel lens with which to look at sense of place, I initially let my themes and categories be guided largely through the voices of interviewees, rather than basing them on previously-defined, measurable components of sense of place (i.e. place attachment, rootedness, belonging, place identity, satisfaction) or using the corresponding questions that are used for psychometric analysis. However, in my analysis I was also influenced by previous thinking on sense of place, and found that some established themes were borne out by my interviews: *sense of belonging* is a strong component studied in the field of social and environmental psychology; *agency/determinism* (which I modified to intentionality and impulsiveness) is a binary that has been heavily debated in humanities and social sciences for a long time and has been applied to health studies; and *sense of connection* comes out of a “global sense of place” that has been embraced by post-structuralist human geographers since it was

introduced by Doreen Massey (1993). Expounding on those overall themes, the subthemes in this study emerged through analysis of what interviewees expressed about their food interactions and understandings, suggesting different facets of sense of place.

#### **4. 3 Indicators of sense of place for this study**

In this section of my study, I propose three distinct indicators of sense of place that arise from people-place-food interactions: *sense of belonging* (with its counterpoint, sense of alienation); *sense of agency* (intentionality of sense of involvement with the food environment as well as impulsiveness) and *sense of connection* to other places, ranging from local to global. Each of these three food-related contributors to an individual's sense of place is further broken down into sub-dimensions, illustrating the complex nature of these interactions. The descriptions of the three indicators below set the theoretical context, but are subsequently illustrated with the quotations that initially generated these categories.

- *Sense of belonging*

This indicator of *sense of place* is focused on ways in which people conceptualize their bonds to the neighbourhoods where they live, work, learn and go for recreation (Relph 1976; Tuan 1977:141; Johnston 2000: 732; Eyles and Williams 2008).

An individual's sense of a place is reinforced by belonging to a community in that place, something that is often reflected in shared pride and responsibility for a place (Relph 2008a:37).

Sense of belonging for a person is highly individual, and is continuously formed from both positive and negative experiences, from both meaningful places and perceived gaps. In this food-related study, the interview process captured respondents' expressions

of *belonging* in terms of (a) sense of community, i.e. the value of social interactions they felt when buying or consuming food in their PFE, (b) food access, i.e. the perceived value of food that was available to them, and the general availability of types of food that mattered to them; and (c) how they envisioned an optimal food environment for their neighbourhood. These themes are summarized in Table 4.1.

Sense of community, the first indicator, emerged from talking about the social aspects of places in their PFE, when respondents mentioned features of community that they valued. The set of meanings of the second indicator, sense of place in terms of perceived access to desired food, was informed by answers to the question, “*Do you feel you can get the food that you need or want among the places that are available in Waterloo Region?*” Thirdly, the question, “*How would you imagine an “optimal” food environment for you, if you could redesign your neighbourhood or the city?*” elicited responses about aspects of place that would enhance a sense of belonging through reflections about the perceived ideal. In some cases, responses to these questions indicated feelings of alienation regarding food accessibility or community in locations where people spent most of their days, such as university, school or work-place; these were seen in this study as another important indicator of sense of place.

- *Sense of agency*

This indicator relates to *sense of place* through direct interactions with the food environment. It builds on the ontological understanding that people do not react to the physical environment as a distinct, separate domain but are in a “mutually reinforcing, reciprocal relationship” with it (Cummins et al 2007:1825; Dyck and Kearns 2006;

Bandura 2001). As agents, they create meaning about their environment and can shape it themselves in minor and major ways, a process which is arguably linked to sense of place. A greater degree of social involvement, such as forming a neighbourhood food buying club or CSA, organizing cooking groups or participating in a community garden would indicate a particularly strong commitment to place, or sense of place. *Intentional* behaviour, such as planning food-buying routes or visiting specific food places in order to support their business, would simultaneously derive from and contribute to sense of place.

While respondents in this study offered many examples of the actions they took to maintain a degree of control over the food they obtained by choosing certain places, there were also instances where they felt “at the mercy” of their food environment – for example, being “tempted” to buy food they had not intentionally set out for; or facing undesirable/ unaffordable food options at a location where nothing else was available. The degree of control or *impulsiveness* that people felt at places would have repercussions for their sense of place. These two themes within sense of agency (intentionality and impulsiveness) are presented with their subcategories in Tables 4.3 and 4.5.

- *Sense of connection*

The indicator of sense of place that reflects connectedness to other places was initiated by Doreen Massey (1997), who called it a *global sense of place*. She pointed to the heterogeneity and dynamic nature inherent in most urban neighbourhoods, and questioned the progressiveness of a unique, unified sense of place centred around a location/region with a defined tradition and defined parameters of belonging. Short of attention to individual sense of place, she made a case for a global sense of place arising



spontaneously from a “distinct mixture of wider and more local relations”, and suggested that “an understanding to its character...can only be constructed by linking that place to places beyond” (323). Massey did not mention food as a contributor to global sense of place, but she briefly mused about the “geographical identity of food” in *For Space* (Massey 2005:172) by juxtaposing the extremes of *malbouffe* (“eating any old thing”) with *terroir* (“local is good because it’s local”). Nevertheless, the new spatial imaginaries that resulted from this way of thinking were pursued by poststructuralist researchers who wanted to focus on the “relational complexities that lie underneath spatial forms” (Murdoch 2006:12-13). This concept, I think, can be applied to the way food and food retail places are perceived.

In the interviews for this dissertation, people frequently talked about food and food places with respect to the connections elsewhere. Whenever they talked about “local” or “imported” food, it implied a link with its place of production. When they talked about environmental, social justice, animal welfare or agronomic (e.g. organic, genetically modified) aspects of food, it evoked images of other places where these aspects of food production or processing occurred. Talking about ethno-cultural meanings of food conjured up actual memories of countries or provinces of origin; buying food from store or restaurant owners who were immigrants (recent or not) brought to mind global connections for their customers. For some people, buying food at certain places created historical place recollections. In other words, there was ample evidence for the power of food to create sense of place in the way Massey envisioned it. These dimensions of meanings of connectedness are summarized with subcategories in Table 4.6.

This tendency to make place connections through food represents a growing trend in our current society; it is reflected in a new attitude towards, and knowledge about, place-food connections that have arguably been stifled by the food industry over the past several decades (Wrigley and Lowe 2002; Wilkins 2005; Atkins and Bowler 2001). It is of interest to document how making place connections through food is verbalized and acted upon, and later (in Chapter 5) to explore how it may be linked with diet.

#### 4.4 Sense of belonging

This section follows up to the previous introduction to sense of belonging, by presenting the subcategories to this theme and selected quotes which informed them.

**Table 4.1 Sense of belonging**

	People	Quotes (163)
a. Sense of community	19	23
b. Food access (32 adequate/ 11 somewhat adequate)	44	44
c. Envisioning an optimal food environment	44	63
d. Sense of alienation/exclusion	19	33

##### *a. Sense of community (19 people, 23 quotes)*

In my grounded theory analysis, I originally classified quotations about *sense of community* as part of the social dimension of the personal food environment (Chapter 3), since they are relevant there as well. Upon closer scrutiny, however, they transcend regular social interactions between individuals at times when they visit particular places. They suggest a broader meaning of community belonging that is inspired by the accumulation of experience at a set of places over time. For example, one respondent

reflected on how buying fresh produce at certain places had the ability to unite people over a common interest in preparing it, creating a “community” among those who think and act alike with respect to place:

That’s the other thing: the sense of community – it’s moving people over food, you know. We really don’t buy a lot of pre-packaged food. And I think what happens is, when we make things from scratch we have that sense of community of *meeting people over the vegetables and talking about how you’re preparing this and that*. When you buy a frozen lasagna you can’t talk about how you made it. You just pop it in the oven. So food unites us in so many different ways, and I do like that. (my emphasis)

In the community psychology literature, sense of community has been described as a feeling of belonging associated with the social characteristics of place, involving shared connections and the expectation of receiving resources from a community and reciprocating in kind (Pretty et al. 2003; Obst et al. 2002:128-29). A community feeling was in fact articulated by several respondents of the current study as an attribute of certain places they liked to visit, supporting in general the feeling of belonging and shared connections that researchers have identified. They expressed this as “it feels like community”, “there’s such a community”, “it’s a neighbourhood thing”, “it’s a community thing” or “it’s a social hub”. Most frequently this was felt when buying food at places that were also meeting places for many people, thus creating opportunities for social interaction.

There’s such a community at the market. It’s always a group of us that congregates there, and we usually have breakfast or lunch together, and then we’ll do our shopping. It’s the community that draws me there, right?

Such connections of “community” with the context of places where food is bought and consumed demonstrate that it is of interest to consider how the manifold aspects of the urban environment contribute to sense of community. Food as one of these aspects

may not be immediately obvious, since in contemporary society, most food buying has become dislocated from a sense of community. Although never without meaning, food buying is commonly regarded as a mundane act, a chore that should be done as efficiently as possible, and only occasionally an activity that involves interacting with neighbours (de Certeau and Giard 2008). This societal trend has been challenged by the so-called alternative food movement, with its emphasis on the value of short supply chains and the deliberate creation of new community spaces. For example, small-scale markets or community gardens, provide “multiple opportunities... for diverse people in communities to come together to talk, listen to each other’s concerns and views, plan together... and to get to know and trust one another in the context of a common purpose” (Feenstra 2002:101-02).

In this study, several participants who were members of CSAs (community supported agriculture programs) or local buying clubs, attended the local market regularly, or remembered a time when small corner stores were the norm, talked about such social spaces and how they created a sense of community. They sometimes juxtaposed this with large retail or “big box” stores where they felt an absence of sense of community.

I like the Working Centre because I like the people who work there, and also there was a lot of organizations meeting there. There’s a meeting space there where you pick up the food boxes. There’s all kinds of activities going on – so I just found it was a social hub.

Before Macs Milk even, we had what was called grocerettes, where you could get milk or butter – like send Billy out for a pound of sugar. Go and quickly get some bread. If that were feasible to bring back, that is what makes communities. Large grocery stores killed them, because they couldn’t compete.

Many members of Bailey's Local Foods found it remarkable to experience a feeling of neighbourhood camaraderie associated with the weekly food pick-up at a church hall in uptown Waterloo.

All of my immediate neighbours that go there, so literally a whole crew of us pick up our kids at school on Fridays at 3:30, walk over together in a big parade of strollers and wagons and bike carts, and then bring the whole crowd into the pick-up place, which creates for a bit of chaos while we're all there with all the little ones running around. So we decided to leave all the kids at the park and take turns... half the moms stay [at the park] and half go pick up their food and then we trade. We look forward to Friday afternoons, it's wonderful.

I mean there's a lot of our neighbours in there (*at the Bailey's food pick-up place*) so we do meet people on a regular basis there. But it's a neighbourhood thing...it's not like where you live in suburbia and you have to drive to a big box store to buy your food. It teaches us more about living in a community where the zoning allows for food to be a couple of blocks away.

For some respondents, CSA programs with weekly food pick-ups directly from farmers were regarded in a similar way. Smaller buying clubs that had been established among groups of neighbours created a sense of community in part because they recreated people as participants or actors (as food distributors and buyers) rather than consumers only (a single-directional act of buying).

Some months I'm actually the buying club sorter so everyone's orders would come to my house. So it's kind of interesting, and it's a community thing too. Certainly I could get all of these things at Zehrs, but I choose to do this because I like the families grouping together, and seeing people.

I enjoy the CSA pick-ups and certainly I'm always bumping into neighbours and people I know there. It feels like a good community.

One study participant referred to his sense of community at a restaurant/pub, where he played the roles of musician, eater and sporadic kitchen manager, as "family".

It's family there, (chuckling) the Boathouse is very family, and different people have different roles to make that place go. I go there to play music, so I'll be eating there, probably couple beers, have a meal. Sometimes I work at the restaurant, and I placed the orders a few times too, like that's when we got those big zucchinis from my friend's garden. It's like family there.

Although all participants were urban residents, some made rural connections that were repeated frequently enough that they went beyond brief encounters, engendering what could be interpreted as a developing sense of place, belonging and even community. Considering the quotation below for example, this man had become a very “loyal” customer of the grass-fed beef and other products that he enjoyed at the farm store near Ayr, but he also began to take his family to the farm as a rural recreation place, feeling increasingly comfortable with the owners and the place itself.

So now sometimes I just go (to the farm store) by myself, but sometimes we do a little sort of family excursion. I've taken my parents there, who live in Toronto. They have a family day in September with food and everything. It's nice to know... it gives you more confidence, I think, in terms of... there's a certain loyalty of knowing people at the farm. It's nice to know the people who actually grow the food.

The existence of sense of community for *other* groups was recognized by a participant who noted the importance of respect for traditions or beliefs that helped maintain that community:

I think that some of what has been done at the St. Jacobs market is disrespectful to some of the people there. Like initially it was a Mennonite farmers market, but then the Waterloo side moved to opening on Sundays. So some of the original vendors... it really put a nail in the coffin for them. It backfired, and now it's an antique market.

In summary, sense of community was articulated by several respondents as related to the places where they bought food, because the activity there felt like more than just buying food. This issue would need to be studied in a more rigorous way in order to ascertain its prevalence, dimensions, depth and links with other behaviours.

***b. Food access (44 people, 44 quotes)***

A feeling of belonging would be hard to achieve in a neighbourhood or region where familiar, affordable, acceptable food could not be accessed. Food access has been

the subject of an extensive amount of research over the past few decades, mostly to identify and examine disadvantaged or “deprived” groups who lack sufficient access to healthy and/or affordable food (Dibsdall et al. 2003; Coveney and O’Dwyer 2009; Latham and Moffat 2007). In this study, the question, “*Do you feel you can get the food that you need and want in the places that you can access?*” was asked of all participants no matter what their income level, to determine the range of responses in a neighbourhood that was relatively well-provisioned with food stores and restaurants.

For the 33 respondents who answered yes to the question about food access, many answered in a way that suggested a sense of belonging to the community, expressing it as “knowing where to find things”, having “anchors” (main food stores) in the community, or feeling “lucky” or “blessed” to have the food they need within reach, although “accessible” ranged from the immediate neighbourhood to within the Region. They also defined the food they wanted in different ways, most commonly quality and variety, but also from local farmers or from “all over the world”.

In KW? Absolutely. I mean we’re in a really good location that way, eh. Just in terms of the variety and quality, you can pretty well get anything you need. Like if I need real Spanish corn tortillas, there’s a store in downtown Kitchener that has the real thing and I know where that is, so, yes, *I know where to find things.*

I’m thrilled that Valuemark is there, and I think Vincenzos is moving into that new building on King and Allen. *Those are anchors for me, those types of places.*

Yes, I’m lucky. Actually anyone living in this area... we have the best food in the country. We have so many independents, we have farmers markets. You can go out into the country directly to the farmers if you want. For example you can drive up to Millbank and go to the cheese factory up there and get their jalapeño havarti, check it out.

Yeah. I think we’re very blessed to have all we have. Stuff that comes from all over the world – it’s amazing, I have no complaints.

Some people qualified accessibility to food relative to another place where they had experienced a different level of access to foods they preferred, recognizing that geographical differences lead to different expectations. It also suggests the existence of different senses of place with respect to food that can apply to different global locations.

Yeah... I hesitate only because, um, if I compared it with what we used to have in Chile. Like little markets happen spontaneously, and because of the climate, the produce is that much better. Just everything is bigger and nicer and it comes in fresh. And I'm Canadian, so I do know when you come back here, the whole idea of "fresh" vegetables, "fresh" fruit – it's not the same as when you're living in a country like Chile. So...I certainly miss that, I guess. I know the value of having that kind of food, right... so that's part of it. So if you asked me, like, if the quality of the food here is great, I would say "not really". Just cause I have that reference point. At the same time, I mean, it's fine... and for the most part it's good, and, um, you can certainly find any kind of food you want.

Not completely. Cause I was used to a lot of fresh fish (in Newfoundland), and good fish. I really liked that. And we used to eat a lot of wild blueberries, like we would pick them and then freeze them, and eat them all year round. But wild blueberries are crazy expensive here. Like we were up in Algonquin last fall, and we couldn't afford the blueberries up there even. So we went to Newfoundland last August and brought back as much as I could... but still...we miss that.

Others answered the question by reflecting that access to the food they wanted was perhaps less a function of the foods available nearby than a developmental process in which they had to "actively seek out" places that fit with their needs. The following woman's sense of belonging and sense of place may be reflected in that she felt "content" about the results of that process<sup>16</sup>.

It sort of progresses, you know... so over time, we've been actively seeking out the vendors and specific places we want to buy food from... and we're gradually adding to that, right? And I think we're at a point where we're pretty content with where we get our food from, and the selection of food that we have. We've lived in this house for about 2 years. And before that we didn't live far from here. So we've been able to structure our own food environment, almost, around what we want to buy and where we want to buy it.

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<sup>16</sup> This respondent likely used the word "food environment" because I had given that name to her places on the map; however, she then applied the concept in terms of "structuring" her own food environment in order to access the food she wanted.



Among the 14 people in the lowest income group, seven said that they often had to make a special effort to access food that fit into their budget. Choosing places or times to visit those places sometimes meant a trade-off between values about preferred food and food that was available cheaply. The multiple strategies that they had come up with, however, indicate a sense of place and perhaps even a sense of belonging related to the security of knowing where affordable or even free food could be obtained. Acting on this sense of place that helped them deal with low food budgets also involved planning and time-scheduling, to fit with times that cheaper or free food was available at certain places.

“Dumpstering” for bread at a series of bakeries, for example, was an organized evening activity, sometimes undertaken as a group, repeated weekly because they could rely on the bread being in the outdoor trash bins in sealed bags. This activity was described as a legitimate way to salvage surplus food that was no longer fresh but still edible. The contributing bakeries were respected for their responsible behaviour in making it available, as opposed to the chain grocery stores that compacted and padlocked their discarded perishable food. The same students who went dumpstering also sporadically bought fresh local produce that they felt was healthy and helped support local growers, grew tomatoes in their front yard, and helped homeless youth obtain food. This illustrates complex behaviour involving trade-offs (getting food free in some places and therefore feeling able to afford other food that is not low cost) and, arguably, a strong sense of belonging built on place-based strategies and (as they expressed it) a sense of social justice.

Say if I’m going dumpstering, going out to the four bakeries that we normally visit, like I know I’m gonna set aside a good hour. In the winter [I go] more often – once a week. I don’t have a car but I can actually easily bike to anywhere within town. It just takes time.

Places like [2 bakeries named] throw out so much good food, that you can just get it and stock it in the freezer and not have to buy it. It's all in bags—you just have to make sure that nothing's been into it and it doesn't look too mouldy. Mostly we get bread that might go bad in a few days, but it's just fine.

At Valumart, they have two discount bins, one for produce and one for bread. So I go there to scope that out. I find you can find a lot of good produce. If you go late, around 8 o'clock when they're closing (chuckling), you can get quality food for a good price.

Saturday mornings is a good time for the market. If you go between one and four [o'clock] you can get some picked-over discount stuff. If you want the good stuff you go in the morning.

It's often I bounce between ethics and economics. I'm like... I would try to purchase things based on like an ethical value system. But sometimes it's just whatever's cheapest or convenient or whatever we can get for free. So I guess I have to find a balance...

Three out of 11 in the midrange income group and two out of 19 in the high income group said they could not always access the food they wanted in terms of quality or source. Those who actively sought out locally-grown food felt that access to it was limited. One person did not buy imported produce but went out of her way to obtain local food rurally:

It's difficult, you know, like I try to watch the labels. I try to buy Canadian but sometimes you don't have a choice. Like the other day I was with a friend and we stopped at Herrle's, that little farm market out on Erb street. They had local lettuce for \$1.39 a head. It was on sale at Sobey's and Zehrs for 99 cents, so I'm not sure where that came from, but I know Herrle's stuff was local from Elmira. There's no bus out there, so it's just one of those things I get when somebody else is going out there [to give me a ride]. I don't mind paying a bit more if I know it's local.

I think we do have to work at it, to get local food. Especially the bigger grocery stores actually do a fairly poor job of carrying local food. I just don't think they're trying very hard. Yeah... it's unbelievable how, like even in the fall, the majority of their apples will be from the US. So I deliberately do not go to them unless I have to, because I'm just so frustrated at how they handle networking with their local farmers.

Table 4.2 summarizes issues mentioned by the 12 respondents who answered “less than ideal” to the question “*Do you feel you can get the food that you need and want in the places that you can access?*”

**Table 4.2 Meanings of “less than ideal” food access**

Food access is “less than ideal” because: <i>(some people gave more than one type of response)</i>	Number n=12	No. in lowest income group n=7
Need to employ special strategies to find affordable food	7	6
Cannot find locally-grown food easily	3	2
Allergies in family; cannot find needed food near by	1	0
Cannot find culturally-familiar or acceptable food	2	1
Cannot find nutritious take-out food	2	0

In summary, the word *access* is relative because it means very different things to different people. “Accessible” could be conflated with convenient and affordable, but the verb “to access” implied for some an active process of obtaining desired/needed food, even if that meant driving far, or even starting their own buying club. The experience, knowledge and ability—either with ease or with effort—to access food that was desirable, necessary and affordable may be a part of a sense of belonging in an urban environment. Conversely, on-going difficulty and frustration with accessing desired/needed food would result in a sense of alienation. This is discussed in the next section.

***c. Envisioning an optimal food environment (44 people, 63 quotes)***

Insights into sense of belonging also emerged in the responses to the question “*How would you imagine an “optimal” food environment for you, if you could redesign your neighbourhood or the city?*” Almost all respondents had ideas immediately, indicating that they had already contemplated how their neighbourhood could be enhanced with respect to food and food places, and often the social spaces imagined along with it. At the time of the interviews, the Thursday uptown Waterloo market had not yet started, as the area was under construction and was not designated for any particular purpose.

Eighteen people out of 44 independently suggested such a market, and seventeen imagined the added value to their built environment of more small specialty food shops; this indicates a high degree of commonality to the way people envision their neighbourhood, and possibly what shapes their sense of place. The following quotations illustrate the breadth of responses about the imagined optimal food environment; they also embed a sense of belonging and community that people valued regarding the place where they live. The number indicates how many respondents commented in each category. Italics are my own emphasis.

- *Small farmers market Uptown Waterloo (18)*

I would love to have an actual farmers market in uptown Waterloo. I have heard that over and over and over from people. Especially for the seniors near uptown Waterloo – I think a farmers market could really make a difference for them.

- *Congregation of small specialty stores in walking distance – butcher, cheese shop, bakery, produce store, deli, bulk food store, etc. (17)*

From a general perspective, I would like to be able to walk down to King street and have all sorts of different stores – that would be ideal. Like just to walk down there, and there would be, you know – are we talking about an ideal world, here? – it would be like a big city. I'm kind of like a city person, right? So you walk down to the inner street, and you've got a butcher, you've got a cheese place, a bakery, more smaller stores. I would much prefer that. There sometimes can be a balance between price...you don't wanna be too boutiqueish. But those kind of stores would add flavour and...you know *the best neighbourhoods have a couple of stores which are really unique and sort of provide a bit of difference*. It wouldn't have to be expensive, it could be a little restaurant or a little place that makes their own pastries, right... so that would be ideal.

- *Healthier, more diverse take-out places and street food, and more neighbourhood coffee shops (9)*

I keep thinking if I was in a different time in my life, I would love to get my hands on a little space and turn it into a coffee shop which is a real community stomping ground. Get these independent people in amongst neighbourhoods. There are not many real neighbourhoods. I think the suburbs are really destitute in terms of that kind of community. But I think that's smart to do it there too – find a place where there are a lot of families, *where it would become a real source of community* to have a place where you could pick up your coffee, you know, on a weekend. And bump into your neighbours... I think that would be a really smart thing for Waterloo to do.

- *More ethnic food stores and restaurants (3)*

We need a proper Middle Eastern store... I wish we had something like that over here. I even bring my spices with me from back home in Jordan, because I don't have Dearborn (Michigan) anymore. Like places where we can get fresh spices, fresh herbs and so on.

I would wish for an Asian food mart nearby. We eat a fair amount of Asian food, like sushi, so a fish market in the neighbourhood would be awesome, that would make me so happy! (laughing) Cause I like to eat raw fish, but I'm not going to eat what Sobey's sells raw.

- *Community garden (3)*

A community garden and a community kitchen would be beautiful. When people pool their resources, it's cheaper, and usually higher quality, and *you get a better social aspect from it*. Like we do a lot of potlucks and stuff with street youth, so that people can get together and share food, and actually hang out. So if there was a place for a community kitchen, that would be kinda cool? I envision that as being more of a community institution than like a commercial enterprise.

- *Better bike access around the city (2)*

One of the things, though, that would be neat, is... there's a rail line (through Kitchener-Waterloo), and a few of us neighbours have been talking about how great it would be for that to be a walking and bike trail. Then we could get to downtown Kitchener so much easier, and we could all get to the market.

- *More local food buying club outlets (5)*

I wish I could open my own Bailey's (food buying club) pick-up point. So she's got a really great central spot in Waterloo, but I think it would be really nice to have a Kitchener pick-up too. People who live further away from Waterloo are obviously discouraged because it's far.

In summary, the two most prevalent wishes for neighbourhood improvements mentioned by participants in terms of food were (a) smaller-scale venues that encourage walking and opportunities for meeting neighbours; and (b) greater diversity of food choices close by. Nobody said they wanted another supermarket or more fast food outlets nearby. This suggests that sense of place and a sense of belonging are tied to residents' ability to buy and consume food nearby that enhances diversity, and in ways that strengthen neighbourhood ties.

*d. Sense of alienation (19 people, 33 quotes)*

The previous section highlighted ways in which a sense of *belonging* to a place can emerge from the ways that people talk about the places where they obtain food. The sense of community they feel there, the perceived accessibility of desired food, and the ideal neighbourhood foodscape they imagine would all enhance that sense of belonging. The other side, a sense of alienation, also emerged through this lens of food places.

Manzo (2005) has used qualitative analysis to show the range of experiences that create meaning of place, including negative meaning resulting from abuse, threat, exclusion, loneliness or other painful experiences at a place over time. Cresswell (1996) demonstrated how neighbourhoods or regions that are defined by parameters of inclusiveness, can be exclusionary to those who feel, or are made to feel, that they do not belong.

An extensive, mixed-method study in Coventry, UK focused on retail use (not specifically food-related) and social exclusion (Williams and Hubbard 2001). These authors argued that “the conceptual division of consumers into those who are disadvantaged primarily because of their social marginalization... (or) their spatial marginalization offers only a limited understanding of the interaction of society and space” (270). Their findings provide evidence of “a complex geography of exclusion and inclusion”, involving economic, cultural, political, social factors that “spin together in distinctive ways to create particular forms of exclusion for certain groups in certain places” (284 and 271). In Coventry, at the turn of this century, they found a tendency for low income people to gravitate to more traditional shopping facilities, nearby or not, where they would encounter other people of the same social class; the authors called this

“self-exclusion” (283). Many tended to avoid the newer stores and shopping centres that they associated with more affluent consumers. The reverse was true as well, based on the perception that superstores represented a safer and more crime-free environment. Similar types of segregation were found by seniors, families with children and people with physical handicaps, regardless of income, who felt more restricted by both distance and type of store. People without cars exhibited a range of behaviours, with some travelling far and wide on public transportation to shop at places where they felt comfortable. Comments about food at the local farmers market suggested that many went there for low prices but felt deceived by poor quality produce. Thus, in the Coventry study, feelings of inclusion/exclusion for some were based on retail factors beyond price and proximity, leaning strongly to social affinity and perceived value of goods, among other factors. This type of study represents an interesting examination of diverse meanings of place and sense of place as evidenced through shopping practices.

Ethnicity and culture can also create retail spaces of inclusion or exclusion, which was the subject of a study in the area of geography of consumption by Lo and Aoyama (2009). Toronto, an immigrant gateway city, has recently seen growth in immigrant-owned businesses as well as more ethnic foods in mainstream grocery stores, leading to the question of how urban consumers choose between these food venues. Comparing Toronto populations that they labelled “Chinese” and “non-Chinese” (everyone else), these authors noted the following differences:

In this case, a Chinese supermarket is more than a grocery store to the Chinese—it conveys nostalgia and is imbued with cultural values and practices, and serves as a social setting where Chinese identity is constructed, reinforced or negotiated. A visit to a Chinese supermarket, therefore, is not a convenience trip. On the other hand, non-Chinese have a different perception of Chinese supermarkets, one that is not acceptable to them in

terms of cleanliness, one that they find hard to feel comfortable in, and one that does not meet their own cultural needs. Whether experienced or imagined, these perceptions render ethnic supermarkets as impermeable spaces for those outside the ethnic group (Lo and Aoyama 2009:410).

While the conclusions of this study appear somewhat polarized and over-generalizing, they did point out how a cultural focus in retail may lead to feelings of inclusion and exclusion.

In comparison with the above-mentioned two studies, the findings from this dissertation research show a human geographical complexity similar to the study by Williams and Hubbard, but with different spatial and social circumstances and different perspectives on alienation. Many respondents from among uptown Waterloo residents in 2009, from all age and income levels, felt more drawn to farmers markets and more alienated by large superstores (although they all used them). Some felt the reverse, preferring superstores to markets. None saw ethnic food stores as “impermeable spaces”; on the contrary, a number of them wished there were more, and made regular trips to such places even if they were not from the same ethnic group.

Respondents from this study did, however, express feelings of alienation and discomfort, if not exclusion, at places in other ways that are outlined below from the respondents’ points of view:

- *Overcrowded farmers market*

I find the market so crazy busy and chaotic. I get anxious with all those people. The market is too crowded, and I’m not a big fan of crowds, so it’s a bit overwhelming for me.

I used to love the St Jacobs market, and now it just feels so commercial, and there’s so much other junk you have to wade through before you get to the food. There are too many people, and I just find people are unhappy and grumpy and they push each other and I don’t like it. The message seems to be more like “buy as much as you can”.



- *Alienating big box stores or grocery stores*

I really don't like going to the big box stores – I feel really alienated, I don't know, it's just cold. The ceilings are too tall and you can't reach the top shelf (laughing).

Those big box shopping networks that pop up everywhere – they're awful and ugly and... awful! I don't like them at all. I think it just keeps people away from each other.

I don't like grocery stores where you can't easily walk from one side to the other. All those unnecessary aisles... I just go there to buy food. You know... for a senior population, the store's just way too big.

- *School/university campus food environment lacking good quality food*

I'm faced with what's there (*in campus building*). I almost feel like I don't have a choice, when I only have 5 minutes for lunch. Like I was at the cafeteria today, like, thinking to myself, "I don't really want *anything* that's here... what should I eat?"

I don't really eat anything with preservatives or packaged like crazy. Like I normally stay at home, but now it's like I gotta get out of the house to an air-conditioned environment (*the university*) so I brought a lunch. I brought a piece of the pizza that I bought yesterday. And peas and carrots and corn that I got from cans. That's my desperate stash. Tim Horton's (*on campus*) is more like desperation buying... I don't really plan to go out and buy something.

In school they do teach us about nutrition... it's almost contradictory. We'd be educated about nutrition in school, but yet still see contradictions like the vending machines are there with pop, and the food in the cafeteria is not very healthy.

I hate the food on campus. Every now and then I'll buy a tuna salad sandwich. I think we need to work on encouraging some of the locally-owned businesses to open on campus.

- *Exclusionary by age or type of food*

It's just by chance that I get to go to Mississauga for Japanese foods. If my friend is not going there, then I have to buy everything near here. Like I can survive. I can buy some rice here, which is not as good as the one I buy from Mississauga.

Ethel's has breakfast, but I go with these older people, and Ethel's is more for university types.

I noticed the poor quality of food at several vendors at St. Jacobs. It looks like they're selling off the wilted and rotting stuff, and a lot of it is coming from far away. It's not local and a lot of big food corporations are selling off their stuff that wouldn't be good enough for a grocery store. You're no longer getting a deal.

- *Unfriendliness to children*

There aren't many places that are accommodating for kids. There are some places I don't go to anymore because they are so unfriendly and unaccommodating towards people with children. For example, Y\_'s – I used to like their place, but I found the service so unfriendly if you have a child, that I don't go there anymore.

The Heuther café...it's got stairs and an awkward two doors, so it makes it almost impossible with a stroller. It's so frustrating that it's not worth my effort to go there.

When we go out somewhere, the problem is the children's menu. It's always so tempting for the kids, they want the hamburger or the grilled cheese or the chicken fingers, you know, but to take out a family of five to a *good* restaurant for better food is too expensive.

- *Harsh treatment of staff*

Some people don't even go to that pub because the owner has a reputation of being a real despot. It's something that some people just don't support and they don't like it. Her management skills, and staff – the ways she treats people in front of customers.

I really don't know the owner, but in truth I have heard a lot of bad stories. I guess I have seen her treat her employees harshly sometimes. A couple of my friends have worked there, and they said she can get nasty. And then I saw myself take a different attitude towards the place and I started going there less, even though I still do believe in the food she sells.

In summary, sense of place, and in particular, sense of belonging, can be affected negatively by exclusionary attributes of places, such as unfriendliness to children, physical inaccessibility for those less mobile, unpleasing atmosphere, poor service, unaffordability, discrimination, unsatisfactory food quality or absence of culturally-specific food.

## **4.5 Sense of agency**

### **a. Intentionality and active involvement**

The finding that people use places in a variety of ways, sometimes in a manner other than what the designers have intended, speaks to the creative ways people use places to suit their needs. It also reminds us that people are active shapers of their environments (Manzo 2005:84).

Sense of place, as is apparent from what respondents said about their interactions with place and food, is partly realized through the multiple ways in which they make daily deliberate choices, decisions, strategies and plans for buying food at various places – both short and long term, both personally and as a family or group. The previous section on *food access*, for example, illustrated the range of types of actions people took with respect to the prepared food available proximally to them (at home, school or work) if it did not suit their needs—they could succumb and buy it anyway, or they could purposefully avoid it and either plan an alternative strategy in advance (e.g. bring food from home), or take the time and energy to travel elsewhere. One step further, they could act to change the retail food availability in their proximal environment, thereby improving access to the food they found desirable. Several respondents mentioned how they were actively involved in improving food access for themselves and others. The ability to imagine alternatives to the proximal food environment and the act of planning strategies to behave selectively among and within those places requires, and builds, a sense of place.

Intentionality and active involvement in the context of this study is compatible with *social cognitive theory* in the field of psychology (Bandura 2001). In this theoretical framework, “people are viewed as self-organizing, pro-active, self-reflecting and self-regulating rather than as reactive organisms shaped and shepherded by environmental forces” (Pajares 2002). Bandura’s concept of *reciprocal determinism* encompasses the triad of personal (cognitive), behavioural and environmental factors to understand human functioning. Social cognitive theory recognizes both personal agency and collective agency (Bandura 2001:14)—although these are generally seen outside the context of

place. A core feature of human agency, according to Bandura, is intentionality, which involves forethought and planning, and can lead to individual or collective action to construct alternative solutions. These ideas were evident in the narratives of my study; but my analysis resulted in a nuanced version of intentionality as an aspect of sense of place, and intentionality taking shape in the context of place—in particular, food retail space.

A number of geographers have critically examined behaviour in changing retail spaces (e.g. Sack 1992; Jackson 1993 and 2006; Lockie 2002; Mansvelt 2008). Sack (1992:3) has argued that although “consumption...is among the most important means by which we become powerful geographical agents in our day-to-day lives”, places of mass consumption, through advertising, remove that agency by discouraging awareness about the links of the production chain, focusing instead only on the consumer and the commodity as central. Jackson has critiqued Sack’s point of view as one-sided, namely that Sack has revealed the context for consumption but ignored how these place-advertisements are actually understood by consumers: “The effect has been to emphasize a dominant, hegemonic reading... and to portray the consumer as a passive, hapless victim. The notion that people may be capable of diverse responses... is rarely discussed, much less the scope for consumer resistance” (Jackson 1993:209). In a study of food retail use in two different areas of Portsmouth, UK, Jackson demonstrated through qualitative analysis that “consumers are skillful, knowledgeable and reflexive subjects, evolving a repertoire of store choices to fulfil their diverse requirements” (Jackson et al. 2006:64).

Research that positions people as “consumers” assumes a one-directional view of behaviour (consumption) that lends itself to studies about hegemonic relations and influence of the built environment, more so than studies about agency and social transformation (Mansvelt 2008:209). Bringing in the term “citizen”, however, conveys the notion of “belonging to or inhabiting a place” as well as carrying “duties or responsibilities along with various rights” (Wilkins 2005:269). Thus the construct of *consumer citizen* has been used to frame the active role that residents are tacitly expected to play in boosting the economy through consumption of goods and services; it has also been used to portray consumers’ political power when they actively “vote with their dollar” to support or boycott certain corporations or businesses (Slocum 2009; Lockie 2006; Wilkinson 2006).

In the same vein, the term *food citizen* was coined, and defined as “the practice of engaging in food-related behaviours that support... the development of a democratic, socially and economically just, and environmentally sustainable food system” (Wilkins 2005:269). At a smaller scale, Lockie (2009) saw the construction of *food citizen* or *citizen consumer* in terms of agency of people within their local communities, through their consumption choices. Baker (2004:309, 322), described food citizenship in Toronto’s multi-cultural community gardens more like *sense of place*, or “embodying the values of caring for ‘place’—the community and the environment” and “infusing the landscape with multiple meanings”.

Citizens in the uptown Waterloo area who were interviewed for my study expressed the multiple ways in which they acted intentionally to influence the local food environment, and to enhance the options within their personal food environments

through planning and gaining skills and knowledge. Selected quotations that illustrated this are provided below, according to categories in Table 4.3.

**Table 4.3 Intentionality and active involvement**

	people	quotes (139)
i. Influencing the food-buying environment		
• Supporting small local business	13	19
• Constructing or envisioning alternative models, changed zoning	8	11
• Requesting new foods in store	3	4
ii. Food-buying related actions		
• Planning food destinations	20	28
• Learning about source of food and food system	11	11
• Preserving food	31	37
• Eating by season	15	19

***i. Influencing the food environment***

- *Supporting small local business (13 people, 19 quotes)*

The following quotations from the interviews illustrate what some researchers have named *food citizenship*. Thirteen people (30% of respondents) volunteered the information that they were willing to pay more for their food or to patronize local businesses regularly in order to help keep them in business. Only four people out of these thirteen were from the highest income group. This arguably represents a strong degree of agency signifying a sense of place that includes the well-being of others, specifically food producers and retailers, who are seen as an essential service. Expressions like “spreading my business around” and “it feels like you are becoming part of the local economy” indicate that some people imagine themselves beyond the consumer role of getting whatever they need as conveniently and cheaply as possible. A keen sense of place was

also realized by concerns about urban sprawl and farmers “barely scraping by”. Thus, supporting small business took many forms:

To encourage local farmers, I don’t mind paying them a little bit more for their food. I think that they should make money. They shouldn’t just barely scrape by.

So I paid almost double, but I like the fact that I’m supporting a local farmer. Because I see the farmlands being turned into houses, and I don’t want to see that continue, I don’t think that’s a good thing, and if we continue to buy strawberries from California, then guess what, those farmers here can’t sustain their business. So I look at it and say, “I can afford to do it”. Do I like paying more? Not really. But I can afford to do it, and there’s a good reason for doing it, so that supports the local farmers.

And then it also feels like you are becoming part of the local economy. I know that we have the wherewithal to produce what we need within Waterloo Region – we’ve done it before, we can do it again. So I think those things are really important.

One of my feelings is to spread my business around as much as I can, to support these stores that I like.

Especially recently since I’ve started to work in the garden, my love of food has sprung more. Whereas before, I was, um...you know I was like, um...“I don’t have much money, I’m gonna buy the cheaper product”. Now I’m saying, I do have a little money, but I still cannot spend it, I do have the option to spend cheaper, but my values have grown deeper. I do believe in local food, so I’m gonna pay that extra buck right now to get that, even though I feel that the prices are not, um, accurate. It shouldn’t be cheaper to buy food from California.

• *Constructing or envisioning alternative models, changed zoning (8 people, 11 quotes)*

A few respondents had gone beyond their own personal preferences for food places and had well thought-out ideas about changes to the local food system that they believed the community as a whole would benefit from. This exemplified to a greater degree the notion of food citizenship or agency that was mentioned previously.

Two participants were actively involved in small-scale buying clubs that they had organized among neighbouring families. This became an alternative way of buying food for those who wanted certain foods that were not available nearby or wanted staples at

lower cost and/or in bulk. It meant a considerable amount of work in terms of ordering and distributing the food, but allowed people to get exactly what they wanted without extensive travelling to different food stores; and it also had social benefits. In addition, Bailey's Local Foods became the first such a neighbourhood buying club that had been turned into a business, sourcing the food from local farms. Still, as I learned from the interviews, smaller family buying clubs in the neighbourhood remained active, ordering from the Ontario Natural Food Cooperative (ONFC) in Mississauga.

The following responses from two different family buying clubs are quoted at length because they reveal multiple facets of sense of place: the active decision-making and knowledge about food sources tied with community cooperation and food distribution among families. A sense of place emerges from these neighbourhood-based activities among people who opt for taking charge over their own food buying.

For our buying club, the food comes once a month; you order on-line [from ONFC]. We happen to have about 10 families in this neighbourhood. It's basically all organic, much of it is local, like from Ontario. Probably three quarters of it would be Canadian product, so I feel good about that. And it's a co-op, so you pay a member fee, and you have voting rights at annual meetings. You can join committees and be more involved in the management of the co-op as well. So it feels good to be part of a co-op because we do believe in that. And then the convenience of having it delivered to our house has been great because we don't have a car. It's affordable because we buy by the case or by the 12-kilogram bag, and divide it up among the members. Mostly bulk seeds, bulk grains, flour, oats, nuts – like dried goods basically, or if you wanted a case of rice milk. So we have like one member saying, "I'm ordering whole wheat flour, does anyone else want to order too?" The people in the neighbourhood come with wagons and strollers and backpacks and pick up their produce. We do potlucks as a buying club, you know people help with sorting the order, so everyone rotates and takes a turn. And we got to know some of the households we didn't know very well, so it's been really nice for this neighbourhood. And our house isn't large... when the co-op order arrives it fills our whole front room. So I think [a maximum of] 10 families is perfect, it's manageable.

So then there is the buying club. We delegate the tasks, so one person compiles orders and submits them for 5 families. So they [ONFC] supply the health food stores, but a group of



families can put together a minimum order. We take turns doing the invoicing, and being the receiver person that sorts out all the orders. The last order was in June and we're going to make another one near the end of August. In the winter it's once a month. We use it for bulk buying, especially for quinoa spaghetti, like I buy a lot of gluten free and dairy-free foods. I find it convenient, because you know I can do it at 10 o'clock at night on my computer and submit it. Some months I'm actually the buying club sorter so everyone's orders would come to my house. So you can see what everyone buys, it's kind of interesting, and it's a community thing too. And that might be a factor, because certainly I could get all of these things at Zehrs, but I choose to do this because I like the families grouping together, and seeing people. It's kind of fun to sort it all out!

The next three quotations were from young people who were active in their communities with respect to fostering food attitudes and access that was distinct from the mainstream. They realized that making these changes would involve modifying the existing zoning by-laws and experimentation with different models.

OK, I would love to see the possibility for small businesses like a small bakery or café in the neighbourhood. There are all kinds of home-based businesses, like auto-repair and massage clinics and chocolate-making in the neighbourhood already. We enquired about having a bakery or cafe here, and it is expensive to apply for re-zoning, and it's not guaranteed. So just for a small business person trying to get started, it's not that easy. So I'd like to see it more affordable to apply for re-zoning.

This whole big box movement really scares the death out of me. I would love to see more farmers markets, more local choices, I'd love to see a change in zoning to enable residential and business to mix in a different way. And I think that if we rethink how we make those decisions as a community, we could make impact on the environment and health, and um, who knows... maybe the gas prices will force people to make those types of changes!

Really at this point in my life I'm seeing buying clubs as the end-all solution. I think it's definitely the way we need to go. Because I think we need to get closer to our farmers. Less distance between the farm and the plate, basically. But if I was to have my own [buying club], I would have a model that allows more choice and convenience and spread all throughout KW because then more people can access it. And if that was to be food model for the future I think it would need to be a lot more flexible, cause people have crazy schedules.

One person had taken part in a public hearing in which residents debated the issue of zoning for liquor licensed restaurants in their neighbourhood:

When there was a big controversy over Ethel's getting a liquor license back in the 1980s, I went to the hearings. So everybody used to make jokes about me saving the bars, you know! (laughing) Actually I was able to speak, and it was at the Kitchener Public Library because there were so many people interested. Everybody was saying that with all the students it would be really awful, everyone stumbling home drunk and causing trouble... and I said, "You know, if you live near King street, you've got to expect that kind of traffic." Some people do that, but the rest of us live uptown so that we can go to restaurants. We shouldn't be denied a nice place to go. And it's not just about drinking there... they've got a great menu, and we eat there all the time. But you should be able to walk uptown, not drive far away. So in the end they got the licence, and the only thing that they weren't allowed to do is have too many televisions, so it wasn't a sports bar.

One respondent learned about farming and how to start her own CSA.

I picked the Fertile Ground CSA because [friend] was apprenticing at Everdale the same year as I was apprenticing at Ignatius Farms. And so we took a farm business planning class together and I was thinking about starting my own market garden. And so, yeah, I wanted to join a CSA because I wanted to see the other end of it, to see what it was like as a customer.

• *Requesting new foods in store (3 people, 4 quotes)*

Behaving pro-actively and building relationships with people who have some power to change food availability was a strategy mentioned by a few respondents in the context of the grocery store.

Central grocery store, they've just barely started carrying rice milk; tofu they didn't even have until maybe 6 months ago. We've been trying to work with the manager to bring stuff in like that in, and it's taking time to convince him.

Getting to know the people who sell us things really matters to me. Like I'll ask the produce manager at Valumart sometimes, "you know, it's July, and it would be really nice to have Ontario strawberries".

In summary, about half (24) of participants in this study described ways in which they perceived their food environment as a place they were actively a part of, not just passively dependent on. Their actions ranged from making requests of grocery store managers to actively patronizing small-scale local businesses to starting their own food-related enterprises. Some were aware that changes in zoning laws were necessary to

support community economic development with respect to enhanced food access and social interaction around food, and they had clear ideas about alternative strategies. Such behaviours and visions reveal a strong sense of place that led to, and was marked by, various degrees of agency.

## *ii. Food buying-related actions*

Just as the previous subsection illustrated ways in which people felt they could influence their external food environment, other types of actions are relevant to sense of place because they indicate individuals' intentional strategies for making optimal use of the existing food environment. In this study, the personal actions that respondents talked about included *planning, learning, eating seasonally and preserving food*. Ordinary and simple as these actions may appear to be, they are worth examining as behaviours of people who view some of their food-buying destinations not just for immediate consumption, but with a sense of what they will need in the future – whether that be the coming week (meal planning) or in preparing for the winter months (preserving perishable food). They indicated an awareness that the food system is complex (desiring to learn more) and that regionally-specific foods are harvested locally at certain times of the year (making an effort to eat seasonally). These four main types of behaviours/actions regarding intentionality emerged throughout the interviews as people talked about the meanings of places in their personal food environment (PFE).

### **• *Planning food destinations* (20 people, 28 quotes)**

Some people (6) said they very deliberately planned their meals, wrote lists and stuck to them, and planned their food-buying trips accordingly. For some, the planning mode with respect to place became part of their self-identity; they referred to themselves

as “a creature of habit” (4), “a planner type of person” and the definitive, “I don’t buy things for the sake of buying”.

I get into a routine, like I go every Sunday morning. Either Sunday morning or Friday afternoon, I go to Sobey’s and Ammar and Brady’s and pick up my stuff. I don’t buy things for the sake of buying. I plan what I want to cook for the next 2 weeks. I write a list, it’s in my purse right now, and I very specifically pick up stuff.

I’m pretty much a creature of habit. I pretty much buy the same stuff every week – very boring. (chuckling) I mean, I’ll occasionally buy something on the spur of the moment, but it’s pretty rare. I’m aware of eating properly, and I can’t afford to eat out, so...yeah.

At the beginning of every week I make a meal plan. So I don’t know if that comes from being in school for so long, but I’m very much a planner type of person. And that would help me with what kind of groceries we’re gonna buy too, right. And also the places that I need to go to get those groceries.

Planning food shopping routines may be related to sense of place in terms of knowing where to go for what types of food and being familiar with the city; but it is notable that two respondents from this study who were earnest planners did *not* feel a sense of belonging in the community with respect to food. Being fairly new to Canada, they found it hard to locate their own preferred foods, quality of foods and places to eat out. Yet they had found a number of places that were acceptable to them, and stuck rigidly to those. They both worked here and also went out to places with friends, but did not feel attached to this city and were quite critical of the food environment. One person shunned fast food restaurants completely, but the other had Canadian-born children whom she took weekly to fast food restaurants to make sure they felt they “belonged”. This illustrates that sense of place with respect to food can be both positive and negative as well as complex in nature.

Respondents who worked or studied at the university (10) almost all felt that buying food on campus was not what they would choose daily, and therefore they needed to plan

to avoid it. One student committed to join the “100-mile diet” for one hundred days over the summer and could therefore no longer buy food on campus at all, which was impetus for him to make an extra effort to bring lunch.<sup>17</sup>

My situation right now is that I have trouble making my lunch. So, that’s where a lot of my eating out happens, is at lunch. Out of convenience and laziness I guess (chuckling). But, once the 100-mile challenge hits... it’ll be 5 days a week making a bag lunch.

I make my own lunches and take them to the university with me. I don’t buy food there if I can help it. There may be 2 or 3 occasions a year when I buy French fries from the cafeteria. But I usually starve before I do that (laughing).

The ten respondents who did not own a car tended to be more bound to planning because of the amounts they could carry, and the places they visited for groceries or eating out were determined by walking distance. One young man reflected on his degree of intentionality by naming the mental criteria he used when buying food anywhere. Another kept cooking ingredients in the student house so that he would be less inclined to eat out. They were among the minority of respondents who did not openly privilege self-control but saw extreme planning as “obsessive”.

I’m not obsessive with a shopping list, but then I still pick food with certain criteria like the nutritional value, the price, and *then* where it came from. There’s principles and beliefs, and then there’s how you act upon them...so yeah, I will think: “Get a protein, get a carbohydrate, get a vegetable. And, where did it come from.”

Often I’ll have like a particular meal in mind, or things I plan to make for the next couple days, so I’ll go and buy for that. We do keep a certain amount of staples in the house, like flour, oil, vinegar, like the things we need for cooking. So I do a lot of cooking, but I also buy things spontaneously especially when I’m biking around.

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<sup>17</sup> It is notable that in spite of the potential healthfulness of the 100-mile diet in terms of *quality*, as most locally-produced foods are minimally processed, the drastic imposition of 100% local food did impact this respondent’s diet in terms of *quantity*. This was echoed in a recent study of the 100-mile diet in Virginia, which found that following the 100-mile diet for four weeks significantly reduced caloric intake but increased intakes of fruits and vegetables as well as cholesterol and saturated fat (Rose et al. 2008). This resulted from a dearth of local grains but availability of local eggs, cheese, meat and butter. Nevertheless, the radical shift in foods led to eating less overall.

In summary, several respondents mentioned personal strategies that led them to be more pro-active at the places where they bought food or did not want to buy food, arguably related to a more agent-based sense of place. The focus on agency or control in this section is significant in its contrast to more impulsive behaviour at certain places that was prevalent in another group of respondents (discussed in the section on impulsiveness).

• ***Learning about source of food and food system (11 people, 11 quotes)***

Ten respondents, in talking about the places where they bought food, mentioned how they actively sought information to help them make decisions, or to better understand complex food-system related issues they were hearing about, or to broaden their familiarity with different foods and the ability to prepare them. Some mentioned that it increased their awareness about the region itself, for example by using the Foodlink map identifying local farms that sell to the public; and that reading labels about the source of food helped them learn more about where (and if) food was grown in the local area.

I just look at the labels, look at the Foodland (Ontario) symbol, try to find out where the vegetables were from, that kind of thing.

I belong to a book club, and we all read that book *The 100-mile Diet*. So now I realize that there isn't really any reason why we should be importing cucumbers from the US at this time of the year, and the environmental costs that go with that. It's certainly become much more mainstream to talk about these kinds of issues. And then we start talking with friends who are more passionate, and then we learn from each other.

For \$25 you get like a heavy load of local healthy vegetables which is nice, a variety of vegetables too. Um... it forces me to cook things that I don't often... like I wouldn't know how to cook it otherwise. Sometimes they give you recipes or I'll look it up on the internet. Like normally I'd just go and buy tomatoes and lettuce and cucumbers and stuff from the grocery store. But in the basket [from Seven Shores] I get like patipan squash and weird forms of broccoli I've never seen before. It's cool!

• *Preserving food (31 people, 37 quotes)*

No matter at what scale it is done, preserving food is a form of agency or control over one's food environment; it led many people to travel to farm stores or larger farmer's markets to buy fruit, vegetables, chicken or other meat in larger quantities. Unlike in the past, preserving is not necessary to survive, as all kinds of food are available in regional stores during the year; consequently home preserving involves a different form of engagement with food, its source and seasonality, and its role in preparing for future needs. For these reasons, even a minor amount of preserving may also contribute to sense of place, although this was more explicit for those whose families had been connected to the land through farming for a long time.

Nineteen out of 44 respondents said they preserved food to some degree each year by canning, freezing or drying. A few bought root vegetables, squash, apples and cabbages in bulk at the end of the growing season and kept them in a cold cellar. For some, canning was more of a novelty or simply the enjoyment of homemade preserves; but for others it was an intentional strategy to "eat local stuff for longer" or to reduce their dependence on imported food over the winter. Two people did it "to save money". The practice of food preserving, especially freezing, seems to be on the rise in Waterloo Region<sup>18</sup>. The following quotations illustrate how preserving food influenced the places where people shopped for food:

We get all this stuff in bulk in our food box [from the Working Centre], so we process a lot. Like we do enough tomato sauce to last all year. And we make jam. And we freeze rhubarb

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<sup>18</sup> Information from personal communication with four people (2009): a canning equipment salesperson, a community nutrition worker who teaches food skills, the owner of a farm store and the author of a local cookbook.

and strawberries and raspberries, and last year was my first time doing peaches – oh, I was really pleased – I was making peach pies all winter.

It [preserving] changed the volume of the types of foods that we bought, so whereas normally I would just go to the store and buy, like, a chicken when I needed it, um... but last year I bought like 15 chickens from Bailey's and we just froze them all. We ate them throughout the year. And I'll do the same with every fruit crop that she'll offer. Whereas before I would just go and buy it wherever...I wouldn't, ever, buy to freeze. Now we're always joking about how we need to buy another freezer, because she [BLF] started up!

So about 100 pounds of cow... we put it in the freezer. We get it near Cambridge, at Oakridge Acres– it's drug-free beef. It also has to do with their practices in keeping the animals. We get it frozen in one-pound bags.

This year Bailey's is carrying larger sizes of things, like this week I bought a huge bag of peas and I'll just stick them in the freezer. So that'll cut back on Zehrs shopping this winter.

Last year for the first time I got into preserving. When I came to Canada, I did not know what they meant by home canning. I thought it was actually cans, and I thought "I don't have any equipment to do that". Yet over the years I saw these glass jars, and then I got the *Simply in Season* cookbook. So I went out and bought a canning pot, and glass jars, and I thought OK I can work with that, you know. If it doesn't turn out, no big whoopee. So the first thing I bought from Nina last year was organic white peaches, and I made jam out of it. So delighted with myself, you'd think I got Olympic gold! (laughing). And nobody got killed, which was marvellous.

I make pickled vegetables and chillies—I just put it in vinegar, with spices and some sugar. But the Japanese one is basically with salt or, um, rice husk. And we fry them a little bit. We dry them and then put lots of salt and some seaweed, like kombu, and a little chilli. And then pour some water. I learned to do it myself, because I really like to do traditional food cooking. I used internet or textbook recipes.

I do some cheapo preserving because I eventually get too many tomatoes [from our farmer] so I will blanch them and put them in jars. And then I can make sauce with them later. So if you call that preserving, then yes. And I have a cold cellar so I put stuff in there and stock it up in the fall – like potatoes and apples so I can eat the local stuff for longer.

• *Eating by season* (15 people, 19 quotes)

I asked all participants, "*in what ways does your food environment differ in the winter/spring in comparison to the summer or fall?*" As Table 4.4 shows, interviewees interpreted seasonal influences on their eating and buying patterns differently.



**Table 4.4 Seasonal eating**

Type of seasonal eating as related by study participants	General definition from responses	Number of respondents n=44
No food out of season	Eat whatever is produced locally or has been processed locally (e.g. no imported tomatoes at any time, but do eat fruit year round that does not grow locally). Seek out venues that sell local food.	8
Summer local, winter global	Same fresh produce all year but source varies	11
Somewhat seasonal eating	Certain foods (e.g. strawberries, corn) are consumed more in season, and somewhat more root vegetables in winter, but not a major decision factor	9
Cook foods differently by season	More fresh food in summer, soups and stews in winter	4
No difference by seasons	No attention paid to seasonality of produce	12

Twenty eight (64%) participants volunteered information about their consumption of local produce, while others talked about how the temperature or lightness/heaviness of their food varied in the summer and winter. For twelve people, there was no difference in the way they ate year round.

A year ago, I would pretty much buy whatever I needed at Valumart, with not a lot of thoughts of where it was coming from. Now, more so I'm trying to think about... like it's spring time so what's in season? So now it's time to eat asparagus. And late summer, now it's corn season. So now I'm trying to buy what is in season locally. Not *always*, though.

An awakening for me, I guess, was when I had my own garden. I realized exactly when things do mature. And so when I'm at the market, I think, "You know... my beans aren't up yet. Where could these beans be from?" And I started asking those questions. And of course they're farmers, right? Sometimes they say, "We put them in a cold frame, and we extend the season that way". And that's great, I'm all for that. But don't try and tell me that peas, which are a spring crop, and you've got them in the fall? hmmm.

We go to the market about once a month in the winter, and then we load up on apples and root vegetables and cabbage, and meat... like we don't eat a lot of vegetables from elsewhere besides Ontario during the winter. So we go to the market less, but we buy more when we're there.

From responses in this study, sense of place was arguably enhanced by the knowledge of which fruits and vegetables are grown regionally, when their peak season is, and where they can be purchased at that time. Choosing produce by its local seasonal availability can be seen as a time-specific, intentional action related to place (distinct from choosing local foods that are not seasonally limited, such as local meat, grains, beans and dairy products). Participants with this awareness tended to seek out specific places where seasonal foods were available and had, on average, higher scores of dietary quality (discussed in Chapter 5).

### *Summary*

In this section on agency, interviewees revealed a dimension of sense of place related to deliberate, *anticipated* interactions and transactions with their food environment – actions which they felt were enhanced by planning. It illustrates how some people feel a degree of personal control vis à vis the external food environment, and how this may give rise to a sense of place that is more intentional than chaotic in nature. Intentional behaviour such as planned food shopping routines, preserving, eating seasonally and actively becoming more aware of the food system are all related to place, and would contribute collectively to sense of place. The opposite feeling, one of acting impulsively and possibly feeling controlled by the food environment, is discussed in the next section.

### **b. Impulsiveness and determinism**

The evidence that people consciously construct their personal food environments, coupled with a sense of place that involves spatial awareness/knowledge/experience conducive to making planned choices (as was demonstrated in the previous section), stands in contrast to the scenario of people being drawn in by the presence of food venues

in the close vicinity of their daily living space, places they might not otherwise seek out. This apparent structure-agency binary is more likely realized on a continuum within the same individual and among individuals – ranging from opportunistic behaviour to more planned-out, intentionally-driven behaviour to procure food. Yet, distinct behavioural tendencies or patterns among people can be identified, as demonstrated in a study of people’s individual, *place-based* relations with the goods they buy (Gregson et al. 2002:606). In her study, interviews with consumers of second hand clothing showed a different relationship with such shops depending on whether they were there out of practical necessity or for recreational impulse-buying.

What is of interest to me, in this exploratory analysis, is to examine the range of more spontaneous *people-place-food* interactions that occur in everyday life, and how people feel about them, in order to tap into a facet of sense of place that is more fluid, less predictable. It is that sense of place that food marketers often play on by promoting convenience, variety, novelty or low price, knowing that it will stimulate spur-of-the-moment spending in some people. Place is relevant because it is the central, meaningful spot at the moment of individual food-buying decisions. Sense of place evolves from hundreds of those moments.

The interview question, “Do you ever feel that the places where food is available drive you or otherwise influence you to buy food that might not have planned to buy?” (combined with other reflections about meanings of place in the interview) elicited over 100 different responses among 44 participants that revealed how people sometimes felt less in control and more impulsive with respect to buying and consuming food at places outside the home. It struck a chord with many interviewees who answered in a passionate

way and unhesitatingly gave examples from their experience. The responses provided ample material from which to carry out grounded theory analysis and draw out meaning, illustrating a range of perspectives. It must be noted that the word *impulse* does not necessarily have a negative connotation. It has more of a “spur of the moment” meaning, which can imply an openness to trying new things or buying more familiar items on a whim when exposed to them at a place.

The sub-themes that emerged from this analysis are summarized in Table 4.5 below. These were differentiated by types of places, which contained distinct sets of circumstances and interactions. Key phrases within the quotations are italicized, and some contain more than one relational factor (i.e. more than one category embedded in the same quotation). Later, to make the link with diet, the overall set of responses are summarized together with average Healthy Eating Index scores in Chapter 5 (Table 5.11).

**Table 4.5 Impulsiveness and determinism**

	<b>People</b>	<b>Quotes (112)</b>
i. Unplanned food purchases in the grocery store	19	22
ii. Spontaneity at restaurant, bakery, coffee shop	27	32
iii. Unplanned healthy food in store, market, buying club, CSA	19	25
iv. Work or university, no food from home	11	16
v. Resisting impulse	13	17

*i. Unplanned food purchases in the grocery store (19 people, 22 quotes)*

• **self-identity or personality**

Five respondents self-identified as impulse shoppers or not impulse shoppers (unprompted), or identified their spouse as such. Others made categorical statements

about their habits, as in “I don’t use a list” or “I don’t deviate from a list”. The phrase “deviate from” suggests the normative value of a shopping list (this was true for many respondents), as well as the negative connotation (deviousness) of straying from it. Yet others recognized their less stringent mode of food shopping as matter-of-fact.

*I’m definitely more an impulse shopper, but [husband] is much better at it than I. He checks everything off, and if it’s not on the list, he doesn’t buy it. I’m always surprised – his bills are always so much less than mine, because (laughing) I’m like, “oh these cookies are on sale”. I wouldn’t normally buy them but they’re on sale so I buy them.*

I do most of the grocery shopping, because [husband] has absolutely no control... he’ll just buy whatever. I’ve banned him from shopping because he’ll go to Zehrs to pick up a bag of milk and come back with a bag of chocolate-covered almonds and some cashews and have eaten half of them on the way home. *He is very susceptible to the impulse buys.*

Usually when we’re grocery shopping, we go with a list. And *I very seldom deviate from the list. We’re not impulse shoppers.* Other than at Vincenzo’s, because they have such an interesting variety of food!

*I don’t stick to a grocery list.* That doesn’t bother me, but at Zehrs they have new products all the time, and *I’m very driven by trying something different*, or something with new packaging. I have a few items that I need, but otherwise I just get anything that’s right there. Yeah.

- **aspects of place that seemed to “bring on” impulse buying**

Several people attributed their impulsive behaviour to store tactics such as having a large variety of goods or offering new products. Language such as “you can’t get out”, “I’m dragged in” and “they getcha” suggested that people felt swayed by an external influence they couldn’t resist. Yet they returned to these places routinely, sometimes feeling guilty, sometimes not.

Well, funnily enough, I would say that before I had my second child last winter, I was definitely closer to the extreme of “just go in, randomly grab whatever”, maybe have 2 or 3 items that I go in for, but end up buying another 20 items that look good, or are on sale”. And *I’m dragged in by the end of the aisle...* like they might have a new product I hadn’t seen yet.

Oh! Yeah! Yeah. Absolutely, I spend too much money, every time. And *Costco is really bad for that. Costco's always got all kinds of stuff.* So whenever you go there, it's like "Oh...a book! ...a shirt! ...a set of pots!" (chuckling) You know, um, "Oh... a giant box of chocolate bars! Cause they're on sale this week! Why not!" Um, *so you can't get outta Costco* without spending a hundred bucks.

Oh my god, I never ever go to Walmart, ever. I hate Walmart with like every passion I have. But my roommate went there and I had no food, no toiletries, so I went along, and I felt so guilty. You know *it's just one-stop shopping and that's where they getcha.* I went and got a plant, that's my weak spot, and some groceries, but that's max.

- **personal or family circumstances**

Often respondents felt the need to qualify their shopping behaviour, commonly citing hunger or low blood sugar as the culprit. Shopping with young children was often mentioned as a reason for making spontaneous purchases.

Even if you went in for a case of milk, um, *if you went into the grocery store hungry*, you end up with six kinds of cookies, and a couple ice creams. Every time. (chuckling).

Like at the store, I think, while I'm here, like I might as well get some chips. *If I'm kind of hungry*, and you know, I haven't had them for a while I'll buy some, or when I go when *my blood sugar's low*, then it's "oh I need some sugar, where's the Coke". It does happen probably more often than I'd like.

I actually don't like *food shopping with my children* (chuckling) because I end up buying those sweets that you know they're going to beg for. So I like to go after [husband] comes home, or he'll go in the evenings. And Sobeys's is open 24 hours so that's why we go there.

- ii. ***Spontaneity at bakery, restaurant, coffee shop*** (27 people, 32 quotes)

None of the respondents referred to themselves as "impulse buyers" at places where they bought ready-to-eat food. They did talk about being enticed into the place (e.g. "sucked in") by the thought of the treat that they knew was available there. They sometimes suggested that resistance was futile, but also qualified their actions by having been "hungry", "burnt out" or "needing a hit of sugar". Being tempted at places by delicious food was occasionally called "bad" but was also thought of as a

legitimate in its own right: “that is the impulse part of life”. Again, presence of children was frequently the reason given for dropping in at such places and buying pastries or timbits, for example.

- **aspects of place that seemed to “bring on” impulse buying**

Occasionally, *Whole Lotta Gelata sucks us in*. (laughing) That’s more because unconsciously I was thinking about gelato anyway, I guess.

Starbuck's in uptown Waterloo is for coffee. (pause) I *try* not to eat their oat fudge bars. And their ginger cookies. I’m *really* trying hard.

- **personal or family circumstances**

When I’m driving in the area of Victoria near the City Bakery, all of a sudden my radar starts to go clang, clang, clang...! Because they have very good rhubarb tarts. And I’m like “no... no... no, you don’t need rhubarb tarts!” But then it’s “yes...yes...yes, you do!” So they have very good rhubarb tarts. [big sigh]

Vincenzo's is right on my way home, along the bike trail. I normally cycle past there and I’m thinking about bread and stuff (laughing). *Probably kinda hungry too*, so I stop and buy something.

Wendy’s is just around the corner [from where we live]. My husband travels a lot, so *if he’s away, and I’m burnt out*, I’ll say “let’s go to Wendy’s”. You know, it’s easy and cheap.

### ***iii. Healthy food in store, market, buying club, CSA unplanned (19 people, 25 quotes)***

Many people were drawn to buying healthier foods in an unplanned way (what one woman called “good impulse buying”), and did use deterministic language about these places such as “we gravitate”, “(it) made me try” or “it was like forcing me”. Aspects of place that made people feel driven to buy were encountering foods of high quality or special value (not eaten frequently), or ordering online. Again, children were seen to be influential, leading to spontaneous purchases if foods were to their liking.

The case of CSA boxes (community supported agriculture) was unique because they were usually received weekly throughout the growing season, but often contained

unfamiliar produce. Four people mentioned that they liked to feel pressured to try something new this way (what I might call deliberate determinism), but it was not a spontaneous action. One respondent occasionally went out to a rural store expecting to make an out-of-the-ordinary purchase depending on what there was, viewing it as “a source of variance”.

- **aspects of place that seemed to “bring on” impulse buying**

I’ll do that at Bailey’s [local food buying club]. Sure. I’ve been cooking for about 100 years (laughing) so I usually have a fixed idea of what I want to get, but generally-speaking I come back with more. Because *when I see how good it looks I’ll get it*. Like Nina’s fruit, or if the farmer also has onions, for example. *If impulse buying is “good impulse buying”,* like when I went to Nina’s last time and they had on the spontaneous table they had peanuts – oh they are fabulous. They were just gorgeous, I mean, I have never tasted peanuts like it.

Now if there was a market, you know, close by, and it had fresh stuff, and it was open, *that certainly could easily change my spending habits*, right.

They had fiddleheads at the supermarket, and *it was like “forcing” me to buy them*. I hadn’t had fiddleheads in forever!

Well roadside stands are an unplanned kind of thing. Like Valumart or Sobey’s would be a planned grocery shopping day with a list. Whereas this roadside stand that I just happened to be driving by... it was “oh look – they’ve got new potatoes!” And then *I’ll screech to a halt and get some*.

Vincenzo’s cheese and olive counter is... (laughing) *...we gravitate there like lemmings!*

So getting the Working Centre CSA box *made me try new foods* - way more. You got what you got, so I never had tomatillos before, I never had Jerusalem artichokes? Those little potato-like things. *Cause I hate food wasting*. So whatever’s in the box I was gonna have to figure out how to use it, right? I like learned a whole bunch of new great recipes with that.

Since I’m a member of Bailey’s, I buy more vegetables, and different types of vegetables than I would normally get. I buy a lot more peas, and *I discovered that my children like to eat those snap peas, they’ll eat that like candy*. And grape tomatoes, because I can now get those locally and organically, I’ve probably doubled the amount. And I’ve been buying, which I wouldn’t normally do, these cinnamon buns that [daughter] loves. Yeah, I’ve bought a bunch of new foods. It’s different shopping on-line than it is looking at it. *When I look through the list on-line it does give me different ideas*.



The stuff you're gonna buy at Sobey's and Central Fresh is a fairly standard selection, so you know what you're gonna get, and that's what it is. But if we're going out to the farm, you're getting sometimes different types of foods, like they've got pies and different types of meats, and *so that place became a source of variance*.

*iv. Work or university, no food from home (11 people, 16 quotes)*

Eleven respondents mentioned how their meals and snacks were often determined by what was offered at the cafeteria at work, school or university or restaurants nearby. Only two felt this was not problematic; the others felt conflicted.

Oh, the cafeteria at work is the bane of my existence. (laughing) I go there frequently, like 3 times a week. No, at least daily. Because I get coffee there daily. And it depends, sometimes I'll have breakfast, sometimes I'll have lunch. It's there, it's convenient, and I have a nice relationship with the ladies that run it, which is why I would go there as opposed to going somewhere else. But convenience is the biggest factor. I need to make my lunch instead of always getting it, right, but I don't get around to it.

The school cafeteria. That's if I didn't have time to make a lunch, that might be once a week. It's *not* a nice place although the ladies there are nice. It's a terrible situation, it's a vendor. The food, it's just...(chuckling) a lot of fried stuff.

• *Resisting impulse (13 people, 16 quotes)*

Several people recognized aspects of food places that they felt brought on impulsive buying, and told of deliberately avoiding it.

I always say to [my wife] when we go to Zehrs, "if we finish shopping by the time we get to the health food section, we eat well." As soon as you go to the frozen things or the dry foods aisle, except for the dry bulks, you are not eating well. We just noticed that – once you're out of the health food section, beyond that it's all processed stuff. And we try to avoid that.

Like this is a good example: the farmers market in St Jacobs is so full of stuff, that because you're there and you see it, that power of suggestion can be, like it might influence...like I always tend to bring home more than I didn't have on my list, if I go to places like that, right. So if I go to a place that *I know* what they carry, it doesn't tempt me as much.

Table 5.11 in the next chapter summarizes the responses in answer to the interview question, "*Do you ever feel that the places where food is available drive you or otherwise influence you to buy food that might not have planned to buy?*" This table also showed a

link with diet quality (Healthy Eating Index or HEI), in that participants who felt the least impulsive in the food environment had a higher diet quality compared to those who felt quite impulsive in terms of buying food.

### **c. Summary**

From the interviews, the notion about a deterministic facet of sense of place emerged, both from responses to the question mentioned above, but also from discussing various meanings of place. Over half of respondents in this study (28 out of 44) sometimes or often felt impulsive (internally) or “driven” (externally) to buy unplanned food items at stores, bakeries, cafeterias or on-line. Certain places brought that on more than others for specific individuals; for example, a superstore or farmers market might encourage more spontaneous buying, or a cafeteria in a building where people spent their days would appear to lure them in at certain times of the day. Some despaired about this, especially when they felt it “made them” spend too much money, or buy food they didn’t really want or need. Others took it in stride, seeing it as part of their normal interaction with the food environment. Yet others would reject the most convenient or tempting options and deliberately plan their personal environment to accommodate their preferences, even if it meant more time and energy. Talking about this issue served to bring out more personal reflections on sense of place as people pitched it as deviating, tempting or normal.

#### **4.6 Sense of connection to other places (local/global)**

The element of food sheds light on yet another facet of *sense of place*: the conceptualized geographical connections that are prompted by food buying, for some people, when they imagine its origins, travels or ethno-cultural placings. For example,

when respondents in this study had identified the places in their personal food environment (PFE) and were asked to say more about them, they often talked about the food they bought there in broader terms: for example, where it had come from, who had grown or produced it, how they associated it with their own country of birth or what they perceived its environmental impact was. The idea of food connections has already been brought up in previous sections, as it was a meaningful part of the subjective, social and spatial aspects of peoples' personal food environments. In this section I present what respondents said about connections they imagined within the food system; these mental connections influenced the food places they visited, and as such, I would argue they form a personal construct that is a facet of sense of place.

Lockie (2002), in similar studies about consumer food perceptions, brings in Latour's concept of "action at a distance" from the Actor Network Theory (ANT) approach to questions of scale. This aspect of a global/local sense of place inspires the "extension of social relationships beyond face-to-face interaction", enabling participants to "actively construct and pursue representations of the 'macro-social' as they engage in situated social practice" (282). Thus, largely with the help of media and other forms of awareness-raising, people are able to imagine the inherent environmental friendliness or social justice or "care for distant strangers" in their food (Morgan 2010:1857) and in the places where they buy food (Jackson P et al. 2006; Lang 2010).

I would like to examine, from participants' views in this study, if sense of place could arise from the accumulated, perceived food-place trajectories envisaged by individual people. Would conceptual connectedness through food be relevant to one's sense of place, if that means broadening the urban to include the rural, the provincial,

national and international? In a follow-up query in Chapter 5, I examine whether such a sense of connectedness is linked not only to where people buy food, but also to how well they eat.

Almost two decades after Massey (1997) first introduced the idea of a *global* sense of place, Relph offered the concept of a *pragmatic* sense of place that acknowledged global connections but was also inclusive of local character and uniqueness. In accord with current issues, he included an illustration of food in both global and local contexts:

A pragmatic sense of place combines an appreciation for the distinctiveness of a locality with a grasp of its relationship to regional and larger contexts. It is simultaneously locally focused and geographically extended. It is apparent in such different contexts as...supermarket chains that are integrated with local food producer networks, and the slow food movement and other advocates of eating local produce and regional cuisine. (Relph 2008b:321-22)

Pragmatism, according to Relph, acknowledges change and diversity, and therefore encourages local solutions to modern challenges. Several participants in this study expressed concerns about the global influences (e.g. environmental, health and food justice issues) on their food, and some explained personal actions that demonstrated a pragmatic sense of place. For example, an environmental studies student reflected on this issue as follows:

Maybe I think about it too much. I think people need to get more in touch with their food and where it's coming from. And I think a good way to put it is traceability. I think it's comforting and logical to be able to trace where your food comes from. For lots of reasons – for security, for your own well-being, for your peace of mind, um... yeah just out of necessity it's good to know, it's good to be able to trace things.

This respondent made the connection between his own PFE and a sense of place in which he felt able to trace the source of his food. Approximately one third of participants articulated a similar sense of connectedness to other places, both local and global, via

food. Table 4.6 presents the four most prevalent subthemes that emerged from the interviews. (Note: the number of people listed as contributing quotes in Table 4.6 are not all different people—several expressed thoughts in more than one category.)

**Table 4.6 Sense of connection to other places**

	People	Quotes (69)
a. Local food source connections	17	31
b. Global vs Canadian food connections	13	19
c. Ethnocultural food connections	6	6
d. Environmental issues – global	9	13

***a. Local food source connections (17 people / 31 quotes)***

Several respondents said they valued places that allowed them to know the source or origin of the food. Some were knowledgeable about, or interested in learning details about, the production-processing-retail connections in the local region. Many of these local connections represented real places which the interviewees had visited, as opposed to the “constructed geographical knowledges” about food from other parts of the world that people imagined or learned about but would never actually witness (Cook and Crang 1996:132).

You have fresh produce out there in the market, and the fella’s right there – you can ask him exactly where it’s coming from. I was introduced to a great vendor actually, from Vienna Ontario. I’m not sure where Vienna is; actually I tried to find it on the map... but I’m assuming it’s within 100 kilometers. Must be a tiny little farming community. The vendor’s really friendly. He said he had produce from his neighbours too.

Eating Well carries the Hewitt’s milk in a one litre glass bottle. It’s so much nicer than the milk in the normal carton. It’s from an organic dairy farm, I think it’s in Bruce County. I don’t know, the milk’s just really nice...it’s probably my biggest reason for going there.

And our second home delivery is a farmer friend who lives just north of Cambridge, at a small organic farm. It's just south of the 401 near the river; it's called Riverbend Local Harvest. He's at the Cambridge Market every Saturday too. We know him through the cross-country ski club. And he offered this produce, and we said "sure!" So he comes bi-weekly. He emails us a list of what's available, and we email back to him. Then he drops off the food at our place when he drops off his kids at the track and field practice up here in Waterloo.

Actually Zehrs carries a brand of tomatoes, canned organic tomatoes which are grown in Lindsay. They are awesome! I'm always reading the cans, to see where it comes from. I think the cannery is now changed to Millbank, just recently.

***b. Global vs Canadian food connections (13 people/19 quotes)***

Thirteen out of 44 participants mentioned an awareness that certain produce was imported when it was in season in Ontario<sup>19</sup>. Knowing these connections of fruit and vegetables with the country of origin brought out a local and national sense of place in people that included a feeling of responsibility towards Canadian farmers and affected their food buying practices.

And the other thing I try to do is buy Canadian produce or Canadian products as opposed to, um, American. I find Valumart, especially at this time of year, their carrots are all US carrots. I refuse to buy them! (laughing) I either don't eat carrots or I go someplace else and buy carrots that are Canadian.

I think we are in deep doo-doo if we don't support our local farmers, because it's a really hard life. And I think children aren't choosing it because there are easier options. And so the family-run farms are disappearing. I think it's unethical not to support our local farmers.

I found out that even the farmer's market is not necessarily all local any more. So I kinda check the trucks and see the name on the side of the truck to see where they came from. (chuckling) You know, were they from Blenheim or Elmira, or were they all the way from Markham? So I'll say, "OK where are you guys bringing your food from?" Tomatoes and raspberries, why would you buy American when you can buy Canadian?

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<sup>19</sup> This trade practice is termed "redundant trade", and has been the subject of a study in Waterloo Region (Maan Miedema 2006).

I think we should support our farmers. This year, I mean, I thought it was ridiculous the strawberries they shipped in from California were cheaper than the local ones. And it drives me insane that organic frozen vegetables and garlic come from China. That's not fair! If they can buy local produce, why ship things across the border, why pay all that gas, and trucking and whatnot? So I really do try to buy at least Canadian produce, if not local produce.

*c. Ethnocultural food connections (6 people, 6 quotes)*

Food embeds place most explicitly when it is processed or cooked in a traditional way typical to another country, or if it is of a specific type or variety that grows there (Collins FL 2008; Cook and Crang 1996). These connections were sometimes mentioned by participants who themselves originated from or had travelled to these places, bringing direct memories through the senses and associated memories; or from people who made the global connections locally through others.

Vietnamese Ben Thanh restaurant (in Waterloo)—that is the name of the biggest market in Ho Chi Minh City. I think they took the name from there, because I see the little picture of the market in there. I have been there, in Viet Nam.

If we want to get something unusual, we go to the Kitchener Farmer's market. For example there's a wonderful place called La Casba. And he is from Morocco, and she's Algerian. So for some of the foods there, shebakia, couscous and so forth, we pick that stuff up.

I go to Ammar Halal to get tahini and the canned chickpeas for hummus. My sister-in-law is Lebanese, so she taught me how to make her hummus... so I go there to get the supplies for it. Also Labneh which is a yoghurt cheese that we've all become addicted to because of her, and the Lebanese nuts, and some spice mixtures that I now cook with. They are specific and you have to go to a Middle Eastern store to get it.

At Eating Well Organic, I recently I buy some Japanese food in the Japanese section. Maybe you don't notice when you enter, look at the right hand, and behind the shelf they have a little Japanese food section. And you know umeboshi? The pickled plums, the sour ones? They have that umeboshi paste in bottles.

*d. Environmental issues—global (9 people, 13 quotes)*

Twelve respondents mentioned environmental problems that they felt were tied with the impact of food trade on other places, or even “the planet”. Most said they had become more aware of these issues through the media, and felt driven to follow up on this information in their own particular ways. These cases represent a clear link between local actions around food and their perceived global influence, as well as a sense of agency and pragmatic sense of place that convinced them that their individual actions were worth pursuing.

I have a problem with the environmental impact on importing and exporting goods. So if we can grow our own corn, I don't want to buy it from any other country. I feel strongly about that in terms of the amount of energy that goes into getting food from across the planet. Also because of the impact in other countries, so instead of doing sustainable agriculture, you've got beef farming, which is destroying our rain forests. Well you know what, we can get our beef here, locally. We can reduce some of that impact. I think as much as we can be self-sustaining, then, I don't know, I want more balance with the environment and with the world, and that's important.

For us, eating more locally means not using the car, it means minimizing, you know, our footprint. So at the same time I don't want to be eating, you know, corn that's been shipped up from Texas or from South America because it's 20 cents cheaper, when I can drive up to St. Jacobs and I know that at least it's coming from a farm that's probably within, you know, the 100-mile diet sort of thing. Probably a lot less than 100 miles to be realistic at least with this community here.

Seven Shores (restaurant), it's purely supporting like-minded businesses that are being responsible. They have local, fair trade foods. Also they're a great source for when you need disposable things, like they focus on biodegradable, reusable-sourced materials like their packaging is all corn products and that sort of thing. I appreciate that, so I go there.

The main issues related to food and the environment that were expressed in this study had to do with the energy cost of food distribution (referred to by some as “our footprint”), and with the practices of recycling , minimum packaging and use of biodegradable containers at the places visited. Arguably they represent a sense of place



that is larger than people's immediately experienced environment, a feeling that their food choices connect them to collective actions that seek to make change.

#### **e. Summary**

The local, global, ethnocultural and environmental issues and concerns that were mentioned in the interviews were unprompted. Since each interview involved a fairly in-depth discussion that focused explicitly on reasons for visiting food places, the argument can be made that their responses (or lack of them) about these connections likely reflect the degree of importance to individuals. These food-place connections could be seen as expressions of sense of place, as they were geographically descriptive and displayed vivid mental images of food trajectories combined with personal principles about health (related to the source of food), the environment (production and distribution of food), nationalism ("buying Canadian") and social relationships (farmers, retailers connected to food as well as family cultural connections).

For further analysis in Chapter 5, I categorized study participants into three groups of similar size, based on their perceived importance of local food. For several people, these were new concerns that they had recently heard and read about, but others had been aware about them for several years. I also looked into actions on this awareness, in terms of actual visits to "farm direct" places (farms, farm stores, farmers markets, CSAs or buying clubs) – these are discussed in Chapter 5.

#### **4.7 Conclusion**

Insights into sense of place emerged from the analysis in Chapter 3 where I had examined individual meanings of particular places, and also from participants' comments

about place in general. Examining the emergent categorizations of this data, I noted a distinction between a subjective, internally-focused side to sense of place and an externally-directed side that included the interests or welfare of others. Both perspectives can exist within the same person. The initial focus on food-buying at *places* helped to bring this out, because it exposed multiple meanings among the respondents which ultimately reflected different aspects of *sense of place*. Conversely, aspects of sense of place also influenced meanings of particular places, making this a recursive relationship (as shown in the conceptual framework).

For example, an individual may regularly visit a number of restaurants where a wide selection of menu items are available. This routine practice may correspond to (a) a *behavioural tendency* for impulsiveness, coupled with (b) a facet of personal *sense of place* in which this person is aware of and drawn to a variety of places in the food environment where she feels encouraged to act impulsively. Positive feelings at such places, including cafés, specialty stores and markets, further reinforce a sense of place that enables her to choose food spontaneously, which would be reflected in her PFE as well as her diet. In another example, a person on a low income would intentionally choose places in his PFE where affordable food is available. A resourceful person who is inclined to plan and create strategies for buying sufficient food within a limited budget would, over time, develop a personal *sense of place* characterized by the awareness and routine use of low-cost opportunities in the neighbourhood or region. He might actually avoid places where foods he feels are unaffordable are sold. Yet another facet of sense of place could be present in people who develop an interest in places where they can buy food that allows them to know its origin or where they can meet the retailer/producer—

they would gradually develop a sense of place that enhances their perceived connectedness to food sources.

These relational meanings of place, specific and broad, are depicted in the conceptual framework (Figure 1.4). They represent non-finite realms of possibility for researching meanings of place, including the specific or idiographic level (individual PFEs revealing the social, subjective and spatial meanings of places) and also various facets of personal sense of place. In Chapter 5, I take some of the meanings that emerged from this study a step further by linking them with diet, thus identifying a number of possible *place-diet* links.

## **Chapter 5: Personal food environments and dietary quality**

### **5.1 Introduction**

In the previous chapters I have unpacked the meanings inherent in the personal food environment of individuals (Chapter 3) and sense of place with respect to food (Chapter 4), revealing various dimensions that distinguish ways in which people perceive and interact with their food environment. These relational dimensions are depicted in the left side of the conceptual framework (Figure 1.4). They are of interest on their own, as meanings of place; but some of them may also mediate individual food choice patterns which in turn influence dietary habits. Examining these potential links (termed “place-food links” in the conceptual framework) is the main objective of this chapter. To put this in context, I begin with a brief literature review.

#### **a. Literature review and context**

Introducing diet into this study, which has been, up to this point, focused on meanings of place, pulls the area of inquiry into intersection with the current interests of epidemiology, nutrition and health studies. In doing so, it brings in the potential of highlighting certain meanings of place or sense of place that could serve as parameters or attributes in multi-level statistical modelling that examines individual place-behaviour interactions within complex dynamic systems (Auchincloss and Diez Roux 2008; Doherty 2006). Identifying place-diet links can help fill in the blanks of the so-called “black box” of place effects on health that result from area-level studies (Macintyre et al. 2002:131), where place effects are seen as “emerg(ing) from complex interdependent processes in which individuals interact with each other and their environment and in which both

individuals and environments adapt and change over time” (Auchincloss and Diez Roux 2008:1).

The past decade has seen the accumulation of a large body of research on the relationships between environmental and social contexts and health-related behaviours and outcomes. An example of this are the links between the changing structure of the food-related built environment and the nature of retail food over the past three decades, and food access, diet and the incidence of obesity in Western populations (Macintyre et al. 2002; Auchincloss and Diez Roux 2008; Stafford et al. 2008). A number of meta-analyses and literature reviews have been conducted on this topic in recent years (Black and Macinko 2008; Carter and Dubois 2010; Feng et al. 2010; Giskes et al. 2007; Holsten 2009; Popkin et al. 2005; Smith and Cummins 2009; Townsend and Lake 2009; White 2007). These nine reviews all note that the heterogeneity of research questions, methods and study samples have led to inconsistent findings and limits to what can be deduced from the cumulative body of evidence to date. For example, Giskes et al. (2007:1005) concluded, “no study provided a clear conceptualisation of how environmental factors may influence these dietary intakes. Availability, social, cultural and material aspects of the environment were relatively understudied”. Regarding the most pertinent gaps, Holsten (2009) noted that “future research should directly measure multiple levels of the food environment and key confounders at the individual level”. According to White (2007), “the cutting edge in this field presently are studies where both the retail factors... and diet are measured as applicable to individuals”. Overall, several authors identified a need to elucidate, at the individual level, the underlying mechanisms or mediating pathways between the environment and behaviours.

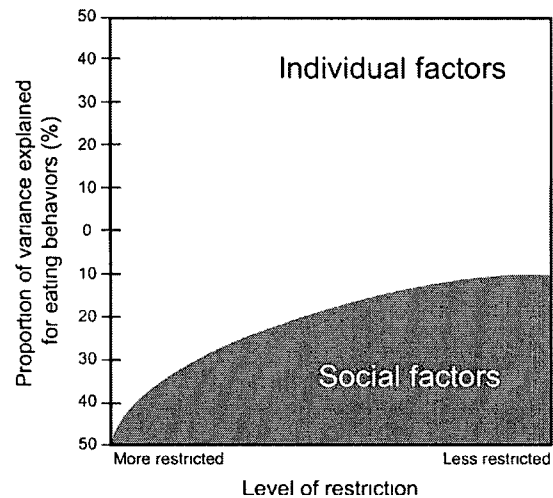
Standardization of food environment measures was another expressed need. To begin this work, an international expert workgroup was convened in the US in November, 2007 to consolidate and prioritize strategies for measuring aspects of the food and built environments at different scales; the proceedings were published in the *American Journal of Preventive Medicine* (McKinnon et al. 2009a). Among the many recommendations from the reviews and the workgroup was the need for better definitions of place (Feng et al. 2010, Matthews 2008) and new theories “that conceptualise the relationship between environmental factors and dietary intakes” (Giskes et al. 2007). Geographical proximity of food retail was accepted as frequently less important than other factors in influencing choice (Feng 2010; Townsend and Lake 2009; Lytle 2009). It was acknowledged that different approaches and paradigms are required to provide more detailed insights:

We must be careful not to fall into the cul-de-sac of environmental determinism—the belief that a person’s environment is the only thing that determines his or her behaviour. Already debates are emerging over how environmental processes actually work as people who live in obesogenic environments do not always become overweight. This observation reinforces the argument that, in all likelihood, a complex interaction between person and place exists at a range of scales which in turn is mediated by a wide range of social, cultural, moral and economic factors and processes. Broad-scale environmental approaches to obesity prevention are likely to fail unless these processes are understood and policies are targeted at specific groups in specific settings at specific scales (Smith & Cummins 2009:531).

Hypothesizing place effects on a continuum, Lytle (2009) proposed that assessing social and individual factors may be more influential to individuals’ food choices in “less restricted” environments (areas with a diversity of places where healthy food is available and accessible), but less so for individuals living in more “restricted” environments with respect to healthy food access (Figure 5.1). She recommended that more attention be paid to psychometric measures of the food environment and putting social and individual-level food purchasing behaviours and perceptions “back into the equation” (142S). However,

this author also suggested that measuring details of the physical food environment is not as useful for areas of plenty, and that social and individual factors are less important to measure in environments where choice is restricted.

**Figure 5.1** A proposed relationship among individual, environmental, and social factors of food choice (Lytle 2009:S142)



I would argue that this represents an extreme form of determinism that disregards the heterogeneity of neighbourhoods and of people living in them. Individual-level measures would, on the contrary, be especially useful in restricted environments to help determine what meanings and strategies people apply in those circumstances.

Cannuscio et al. (2010), for example, examined the health relevance of *foodways* in a qualitative study of three Philadelphia neighbourhoods. They observed that “instead of viewing the food environment simply as a source of calories and nutrients, participants discussed the complex social dynamics that play out therein” (381). This revealed a layered picture, in poor and affluent neighbourhoods alike, of issues including safety, well-being and mental health—suggesting that “examining *foodways*, rather than food outlets or foods alone, may lead us to a better understanding of why some communities are healthy and others are not” (389). The examples illustrating the food-related

experiences in this article were clearly situated at specific locations and revealed a strong sense of place, both past and present, positive and negative; but the significance of this place relationship was not noted.

Given the above context, what is relevant to my study is the growing interest in factors at the individual (idiographic) scale to complement the dominance of research at the environmental (nomothetic) scale (Jackson 2008). For example, methods that incorporate both these scales include agent-based modelling<sup>20</sup>, such as the ANGELO or *Analysis Grid for Environments Leading to Obesity* framework (Swinburn et al. 1999; Smith and Cummins 2009). Another example of agent-based modelling is ILUTE (*Integrated Land Use Transportation Environment*), which simulates the activities of agents such as individuals, families and firms as they change over time, to inform urban planning and transit policies (Salvini and Miller 2005; Buliung and Kanaroglou (2007). What is needed for these models are individual-level indicators (perceptions, behaviours, actions) that reflect a decision-making context in real life. For example, using individuals, recreation facilities, schools, and city planning entities as “agents” that respond to or alter environments for physical activity, Auchincloss and Diez Roux (2008) applied agent-based modelling to show the *ranges* of behaviours that might result by altering the salient elements in a given system. This allows evaluation of hypothetical interventions, and also reveals gaps in information (5).

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<sup>20</sup> “Agent-based models are computer representations of systems consisting of heterogeneous microentities that can interact and change/adapt over time in response to other agents and features of the environment. Using these models, one can observe how macroscale dynamics emerge from microscale interactions and adaptations” (Auchincloss and Diez Roux 2008:3).



McKinnon et al. (2009b) summed up the recent methodological developments as follows:

Complexity...arises from attempts to link multiple types of individual-level data with multiple types of environment-level data, particularly as the transdisciplinary group of scientists involved in food and physical activity environment research may bring a variety of scientific languages and approaches to discussions of the issues. The opportunities include investigating new statistical modeling strategies that are used in other fields to facilitate work within this iterative process (McKinnon et al. 2009b:S84).

In exploring the spectrum of people-place-food interactions, my study has identified four types of interactions with place that seem to make a difference to dietary quality (*place-diet links* in the conceptual framework), as this chapter will show. Thus, relevant elements/variables that could contribute to an agent-based model related to the food environment and obesity would be (1) the frequency with which an individual ate away from home, (2) their frequency of using farm-direct retail, (3) their degree of intentionality or planning in making food place decisions, and (4) level of place-connectedness with respect to food. These factors emerged from qualitative analysis among many other potential factors, but were associated with a measure of diet quality. Several other relevant parameters and agents could also be factored into such a modelling exercise, such as income, mobility and proximity in the neighbourhood of various types of food places, etc. The tentative place-diet links in this study are qualified by the understanding that they require follow-up research to confirm their significance among broader population groups and to create more precise assessment methods.

#### **b. Source of data**

As described in greater detail in Chapter 2, in addition to the qualitative data analysed in Chapters 3 and 4 (the voices of participants as they talked about their

experience in place), I gathered quantitative information that could add to the exploratory parameters of this study:

(a) Each participant's personal food environment was characterized by the location and number of places they routinely accessed for buying or consuming food (marked on the map at the interview), as well as the types of places and the average frequency with which they visited each of them over a month.

(b) Each participant provided three 24-hour diet recalls, which I assessed using the Healthy Eating Index (HEI). This is a composite measure that takes into account Canadian recommendations for minimum food requirements (food groups, whole grains) and amounts of nutrients and foods that should not be consumed in excess (sodium, saturated fat, refined sugars). The derivation of the HEI score was explained in Chapter 2.

(c) Weight and height were self-reported: all participants were asked to fill in their height and weight on the questionnaire themselves, in whatever units they wanted, together with the other demographic information. BMI is calculated from weight (in kilograms) divided by height (in meters) squared.

This quantitative data is analysed in the next sections, alone and in combination, to explore potential associations.

## **5.2 Quantitative analysis of diet quality and Personal Food Environments**

### **a. Study results**

#### ***i. Dietary quality data***

I start this section by introducing the dietary quality data from this study, because it is intertwined with the personal food environment data in subsequent tables. The three 24-hour diet recalls from each participant were averaged into one HEI score per person, as explained in Chapter 2. Table 2.2 shows all HEI values and their averages. Due to high

within-subject variation, the assessment of usual individual diet requires at least three 24-hour recalls gathered within a 2-week period, on non-consecutive days, to improve reproducibility (Gibson 2005:131). Reproducibility is also better if the data are collected by a nutrition professional in a rigorous manner (e.g. careful probing, and querying the ingredients of composite foods); this matters because the percentage of dietary fats and quantity of sodium, for example, vary considerably in different foods and represent 30% of the HEI score. The personal diet evaluation would emphasize the nutritional difference between pre-processed and self-prepared foods. For example, a home-made vegetable stew would likely contain a greater proportion and variety of vegetables and much lower sodium than canned vegetable stew. A high level of accuracy of nutritional analysis is important in studies that aim to differentiate dietary consequences of diverse or changing food buying patterns and food preparation habits.

The HEI scores from this study are presented in quartiles, each with 11 subjects, in Table 5.2. I have labelled these “below average” (lower than the *Canadian* average HEI, which is approximately 58), “above average”, “good” and “excellent”. Since these HEI scores are based on reliable data, I use the diet quartile groups as the independent variable in later analysis as well, with different types of interactions with the food environment (based on estimations) as dependent variables.

The finding that three quarters of this study’s participants consumed a diet that was above the Canadian average (and well above average, for half of them) is intriguing. There may be geographical, demographic, methodological, behavioural and time-related reasons for this. It may be partly due to the fact that this study was conducted in an agriculturally-rich part of the country, in the summer months when fresh produce was

plentiful. This study group was also highly educated as a whole (80% had completed at least some postsecondary education), but they had higher average HEI scores than the Canadian population subgroup with postsecondary education, whose average HEI was 58.8 in 2004 (Garriguet 2009:8).

Because of the differences in the ways that my data and the large-scale Canadian dietary data were collected and analysed<sup>21</sup>, it is possible that the healthier diets in the Waterloo subgroup are not as unrepresentative as it appears, but may reflect more accurate diet histories and greater attention to detail in the analysis. As well, there have been changes in food consumption in Canada since 2004<sup>22</sup>. It may be that in order to detect dietary changes that result from a changing food environment and use of that environment, more efficient methods of documenting home food preparation details are needed for large-scale surveys. This is similar and relevant to the recommendation by Wegener and Hanning (2010) to include alternative retail food outlets (ARFOs) and the foods sold there, to optimize the accuracy of measuring the food environment.

In my study, the 22 participants who were members of the Bailey's Local Foods (BLF) buying club had an average HEI of 68.0, and the 22 *non*-BLF members who lived in the same neighbourhood had an average HEI of 67.8, or essentially the same (given the margin of error inherent in memory and estimation of amounts in any dietary recall).

This was not what I had expected, since my assumption was that BLF members might

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<sup>21</sup> The 2004 Canadian Community Health Survey (Nutrition) for macronutrients and calories was based on a two-day, self-completed diet intake record from 35,107 Canadians across the country (Garriguet 2007).

<sup>22</sup> Canada Food Statistics 2009 <http://www.statcan.gc.ca/pub/21-020-x/21-020-x2009001-eng.pdf>

stand out as a group in terms of buying foods through an alternative retail food outlet (ARFO) to a greater degree than others in their neighbourhood, possibly increasing their options for, and mindset towards, a healthy diet. Consequently, I did not treat the BLF and non-BLF participants separately in the analysis, but pooled them.

There are no published studies yet that have used the new Canadian HEI criteria for adults. In 2001, a random sample of 248 Montreal adults was assessed using the “C-HEI” which was then adapted from the American HEI (calculated somewhat differently) and was based on the 1992 version of Canada’s Food Guide (Shatenstein et al. 2005). The average C-HEI in Montreal was  $70.3 \pm 10.5$  for men and  $74.9 \pm 10.9$  for women.

Table 5.1 below shows variation by gender and age in each HEI quartile in this study group. The average HEI for females was 68.1 (n=36) and for males 67.2 (n=8). Males (highlighted in bold) were under-represented in this group, although they were distributed quite evenly throughout the HEI quartiles.

**Table 5.1: Range of average HEI (Healthy Eating Index) values by quartiles**

Below average* diet n=11 Lowest quartile		Above average* diet n= 11		Good diet n= 11		Excellent diet n=11 Highest quartile	
HEI <58.8		HEI 58.8 – 70.0		HEI 70.1 – 77.0		HEI >77.0	
HEI	gender, age	HEI	gender, age	HEI	gender, age	HEI	gender, age
40.6	F,29	60.2	F,37	70.6	F,34	77.3	F,25
45.9	F,21	61.3	<b>M,24</b>	71.0	F,64	79.4	F,37
48.8	F,52	61.9	F,32	71.3	F,45	80.1	F,35
50.7	F,60	62.9	F,36	71.4	F,53	80.5	<b>M,41</b>
53.1	<b>M,37</b>	63.2	<b>M,31</b>	72.0	F,40	80.6	F,30
53.5	F,39	63.4	<b>M,24</b>	73.2	F,45	80.8	F,36
53.7	F,45	64.0	F,53	74.4	F,46	81.7	F,30
53.8	<b>M,22</b>	64.7	F,47	74.8	F,33	84.5	F,60
54.6	F,59	69.0	F,30	75.1	<b>M,54</b>	87.5	<b>M,42</b>
55.3	F,28	69.5	F,39	75.3	F,39	89.7	F,37
58.3	F,45	70.0	F,24	76.0	F,45	90.0	F,56

\* This average refers to the 2004 Canadian population HEI of 58 according to Statistics Canada (Garriguet 2009), not to the study group average.

Table 5.2 below links the dietary quartiles with average body mass index (BMI), which is calculated from weight and height with a formula related to risk of chronic disease. In this study, the average BMI figures for the top three diet quartiles (higher than the Canadian average) were all within the healthy weight range (18.5 to 24.9). The participants with a below average diet or lowest HEI also had an average weight that was above the average of the group, and had an average BMI in the overweight range. A low HEI would mean not only a lower consumption of whole grains, fruit and vegetables, but also a higher intake of saturated fat, sodium and foods with low nutritional value (e.g.

sugars, added fat, sweets, salted snacks, soft drinks, etc.). A diet high in processed foods and calories would likely be reflected in weight gain over time (Barr and Wright 2010; Thow and Hawkes 2009).

**Table 5.2 : Participant BMI and income by HEI quartiles**

Diet quality: HEI quartiles [range] (Score out of 100)	n	Average BMI (body mass index)	household income range* (number of people)		
			lower	mid-range	high
Below average diet [40.6 – 58.3]	11	26.3	4	4	3
Above average diet [60.2 – 70.0]	11	24.0	5	1	5
Good diet [70.6 – 76.0]	11	23.2	2	2	7
Excellent diet [77.3 – 90.0]	11	21.5	3	4	4

\*see table 5.3 for income category definitions

BMI (Body mass index)	classification	health risk
<18.5	underweight	increased
18.5 – 24.9	healthy weight	lowest
25 – 29.9	overweight	increased
≥30	obese	high

The above finding about the apparent inverse association between diet quality (HEI) and weight status (BMI) confirms expectations about this relationship in general, and may support the soundness of this data in my study. However, I will not attempt further analysis with the anthropometric data here because BMI is a long term health indicator with a complex aetiology. A larger, more age-similar population group, as well as more detailed information about participants (e.g. their activity level, medical history and

weight measurements over time) would be needed to analyze place and diet factors related to body weight. This would be of interest for future research.

Regarding diet and income range (the latter is discussed in Chapter 2), some intriguing data emerged. Alluding first to Table 5.3, the higher average HEI score by higher income level is expected, given that in general, improved diet quality with higher socio-economic status is a consistent epidemiological finding across Western countries (Darmon and Drewnowski 2008; Ricciuto and Tarasuk 2007). In the Canadian population as a whole in 2004, the average HEI score of the top income group (58.8) differed significantly from the average HEI score of the lowest income group (57.0) (Garriguet 2009:8). Looking at the data from my study in Table 5.2 above, which separates the groups by diet quality, it is apparent that poor quality and higher quality diets were consumed by people of all three income groups without clear skewing in any direction. For example, three lower income participants had an excellent diet, and three high income participants had a below average diet. What made the difference?

All three of the wealthier respondents with low HEI scores were fairly knowledgeable about nutrition, but also tended to eat out more often, focused their interest in local food on meat and sausage, and consumed enough high-sodium, high fat processed food that it significantly affected their score. The three respondents of lower income with an HEI in the 80s rarely ate out and did a lot of cooking at home, using mostly unprocessed ingredients with an emphasis on grains and vegetables. Two had their own gardens and preserved food; but the third, a retiree, shopped frugally in a very planned manner. Some themes relating place to diet quality are embedded here (number of eating-out places in the PFE, and degree of planning one's PFE).



In summary, diet quality analysis of this study group showed a broad range of HEI scores, three quarters of which were above the Canadian average. The quarter of the group with below average diet scores also weighed more, with an average BMI in the overweight category. There was no clear association between dietary quality and the household income ranges that I used in this study.

## ***ii. Personal Food Environment data***

This section provides a profile of the personal food environments (PFEs) in this study, together with dietary data (HEI or Healthy Eating Index). This information was collected from and calculated for all participants, and was transferred to Microsoft Excel spreadsheets and an NVivo8 casebook of attributes. The initial examination of the general data sets a foundation for further analysis in which I explore specific links between some aspects of meanings of place and sense of place with dietary quality. These links are represented in the conceptual framework (Figure 1.4).

### **• *Characterizing the Personal Food Environment: places and visits***

Figures 5.2 and 5.3 below pertain directly to the number of *different places* in the personal food environments of study participants, that is, the number of points signifying locations on each person's map to represent the places they visited routinely for food.

**Figure 5.2 Range of number of different places in personal food environments (n=44)**

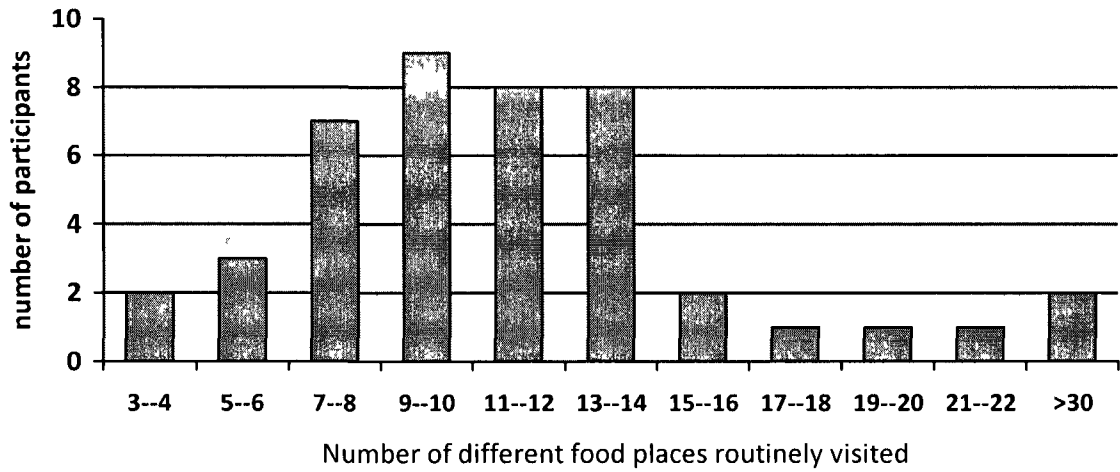


Figure 5.2, which plots the range of the number of places visited among the 44 participants, reveals an almost normal curve which suggests that the majority of people routinely visit between seven and 14 different places over a month for buying food or eating out. Those with only three to six different routinely-visited places (11% of participants) either did not own a car or hardly used theirs. They tended to buy all their food at one or two supermarkets, supplemented by the weekly buying club order (BLF) or with daily food on campus (for the 2 who were students). On the other extreme tail of the continuum in Figure 5.2 were seven participants (16% of the group) who regularly visited a wide variety of places. As the graph in Figure 5.7 shows, these larger number of places, which translates into a large number of monthly *visits*, included a higher number of restaurants and specialty shops.

**Figure 5.3 Estimated percentage of proximal places in Personal Food Environments**

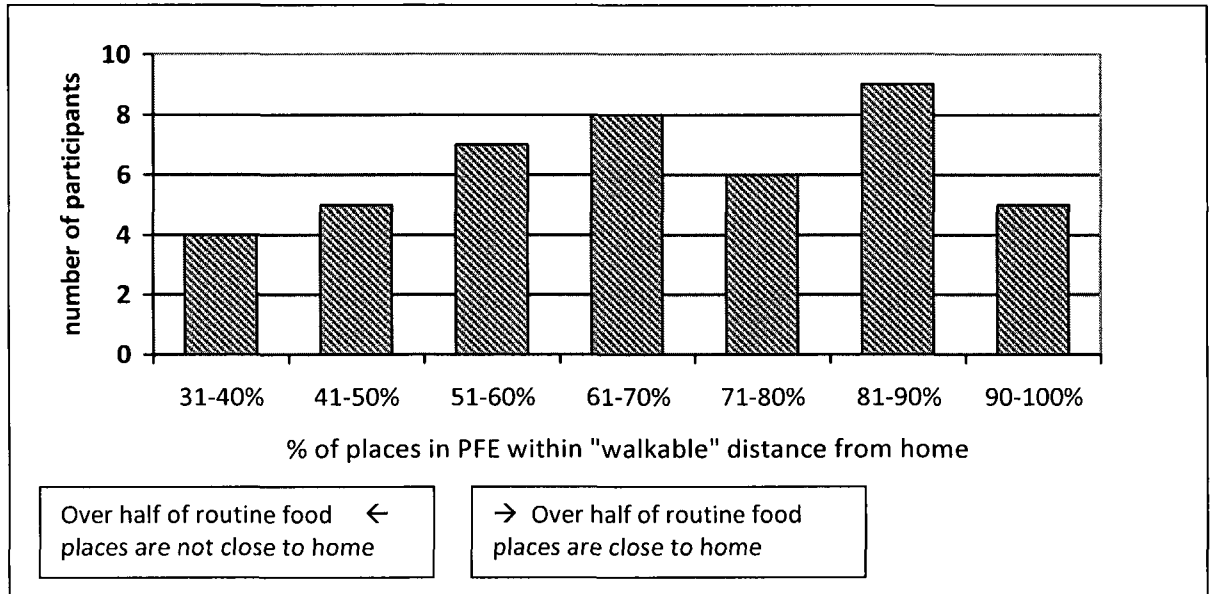


Figure 5.3 is based on the division of places in each personal food environment into those that are either walkable distance from home (within approximately 1 kilometre or ten minutes walking), or greater than that distance. This is a rough estimate for places that are close to one kilometre from a home, given that people are used to and able to walk at variable paces and distances, and that routes include traffic lights, road crossings and shortcuts and are never “as the crow flies”. However, the majority of the places in each PFE could quite clearly be distinguished into proximal (walkable, or close to home) or non-proximal (not close to home) according to this criterion. Figure 5.3 indicates a considerable range in the spread of places that people routinely visit for food. For nine people (20% of the sample), at least 50% of the places in their PFE were beyond a kilometre from home. This is not surprising, considering that many people took cars or a bus to work several kilometers away and regularly bought food en route. However, a

quarter of participants said they regularly made special trips a considerable distance from home with the sole purpose of buying food. This was discussed in Chapter 3, Section 4.

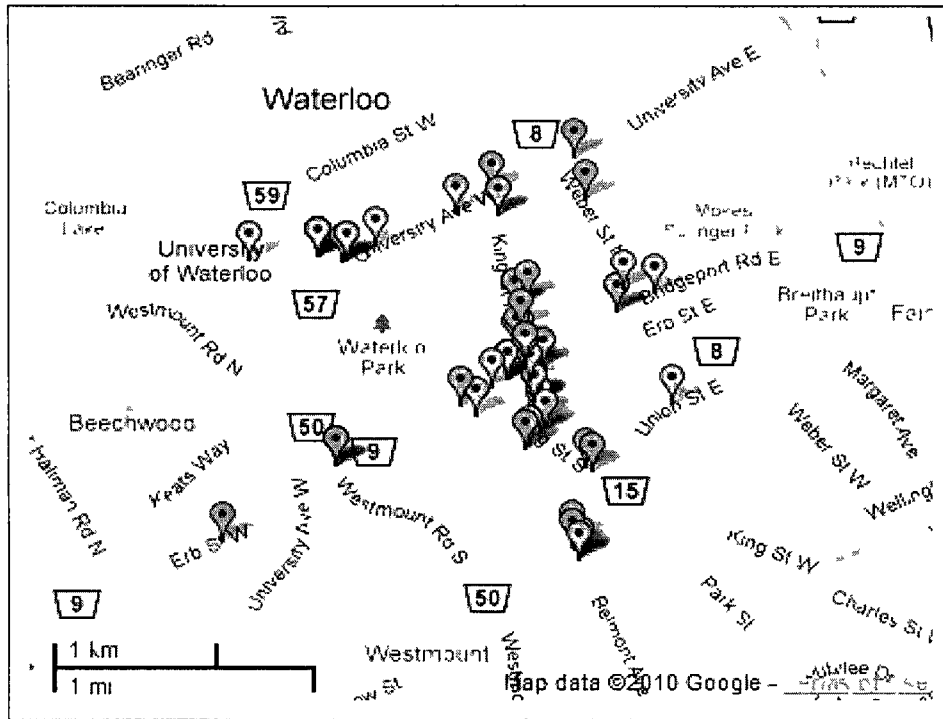


Figure 5.4 Map of collective “proximal” places visited by all participants

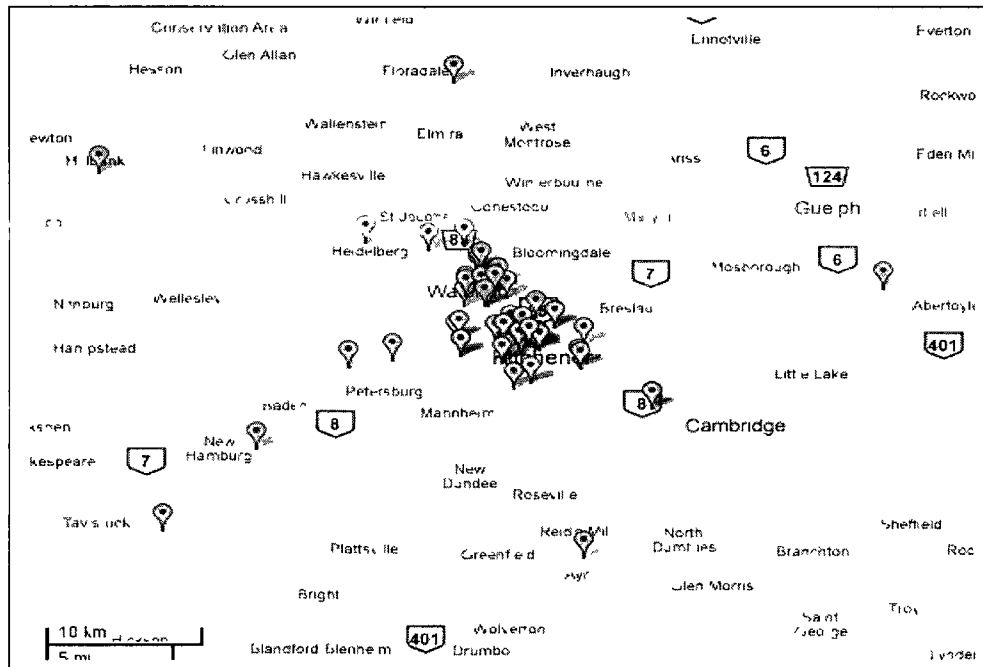


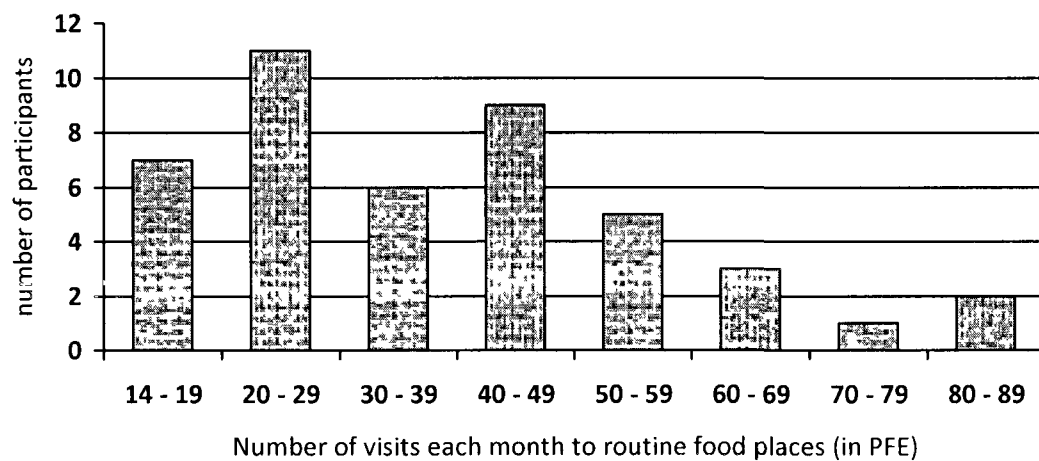
Figure 5.5 Map of collective non-proximal places visited by all participants

Figure 5.6 shows the range of number of *visits* to the PFEs in this study, which for the sake of simplicity I have called the “magnitude” of the PFE. For each participant, the total number of visits (*V*) to all the places in their PFE each month is calculated by adding up all the average monthly frequencies of visits<sup>23</sup> (*f*) to each place (*p*), where *n* is the number of *places* in the PFE.

$$V (PFE) = \sum_{p(1)}^{p(n)} f$$

For example, if a person had 3 different places in their PFE, and visited a grocery store 8 times per month, a cafeteria 20 times per month and a buying club 4 times per month, then their total number of visits would be 8+20+4=32.

**Figure 5.6 Range of magnitude of Personal Food Environments  
(number of visits per month)**



<sup>23</sup> In the interviews, participants were asked how often they visited each place in their personal food environment, in whatever way this was imagined by them. They might say, for example, “only on my workdays, so four days a week” or “every Tuesday afternoon” or “when I go out to visit my mother about every other week” or “whenever I pass by there, which would be at least once a month”. This was used to calculate the monthly frequency.

Two cases from this study will help illustrate how these numerical indicators translate into everyday life. Both study participants have much in common: they are mothers in their 30s, married, university educated, with a mid-range household income, young children and a fairly good knowledge of what foods are healthy, as evidenced by their interviews. They each live about half a kilometre from King Street, where several shops and restaurants are located. One used many of these shops, the other did not.

Case 1: A married woman with three school-age children who averaged a total of **30** food place visits in a month. The breakdown of visits was as follows: weekly visits by car to three grocery stores (12/mo.), a monthly visit to a distant superstore (1/mo.), no visits to restaurants (0); bi-weekly visits to a bakery and a deli (4/mo.); twice weekly visits to a coffee shop (8/mo.); a monthly visit to the farmers market (1/mo.) and weekly food pick-ups at Bailey's Local Food buying club (4/mo.). Only four of the nine places in her PFE (44%) were within walking distance. She planned family meals in advance and bought in bulk, driving further away to specific familiar places that had lower prices and where she trusted the quality of food (especially cured meats). She had little interest in socializing around food buying or eating out. Her healthy eating index (HEI) was 74 out of 100, within the "good" diet quartile.

Case 2: A married woman with a baby and a toddler who averaged **60**, or twice as many visits per month as follows: daily weekday walks to one of 2 different grocery stores (20/mo.); a weekly drive to a more distant supermarket (4/mo.); pizza take-out on Saturdays and breakfast out each Sunday, at neighbourhood restaurants (8/mo.); weekly visits to a specialty store (4/mo.); daily weekday visits to one of 3 different coffee shops (22/mo.); bi-monthly visits to the farmers market (2/mo.). Out of 11 places in her PFE,

eight were in her neighbourhood (73%). She aimed to get out of the house as much as possible with the children, walking to the store on a daily basis and choosing from whatever she saw there, and socializing with friends at the coffee shop while the children slept in the stroller. Her HEI was 63 (above average diet), considerably lower than the case 1 woman's HEI.

The preceding two case studies demonstrate the wide range in food-buying habits as well as the value of mixed method research. The statistics for the *number of food-buying visits* enabled an exploration of contrasting examples of how the use, experience and meanings of place are interwoven with the food that is bought and consumed. On one hand, the quantitative information (Figures 5.2, 5.3 and 5.6) showed that considerable variation exists in PFEs in terms of types and numbers of places and frequency of visits; this heterogeneity is important to acknowledge, in order to avoid assumptions about behaviour among certain demographic groups. On the other hand, qualitative information can bring to light some of the realities and rationales that are embedded in the numbers. As well, qualitative information can help bring out patterns, so that distinguishing features about emergent place-based actions and meanings can be singled out and explored.

The differences in these cases suggested a query into the possible relationship between number of visits in the PFE, the number of eating-out visits and diet. Following up on this, Figure 5.7 showed that participants with a greater number of monthly visits to food places tended to eat out more often. Figure 5.8 suggests an association between fewer places in the PFE and fewer visits to these places and higher diet quality. Later on, Table 5.8 and Figure 5.10 make the link between more eating out and poorer diet, on

average. As well, the above two cases suggest that the habit of buying food more impulsively, in contrast to the habit of planning specific food-buying expeditions ahead of time, reveal different types of interaction with place as well as sense of place (as was examined earlier in Chapter 4). Further analysis suggested a link between impulsive buying at places with overall dietary quality, discussed in section 3 of this chapter.

Some quantitatively-measurable aspects of the PFE can indicate distinguishing features between different groups and their interaction with places. In Figure 5.7 on the next page, for example, the x-axis delimits PFEs of different magnitudes (total number of visits per month), disaggregated by the different types of places that were visited. Thus, the 7 participants who had a PFE in which they made between 14 and 19 visits per month (the first item on the x-axis) tended to visit restaurants and coffee shops least often. With groups of a greater PFE magnitude, this breakdown changed. Certain types of food place visits remained fairly constant (e.g. to farmers markets and even grocery stores for the majority of people), but a dramatically larger proportion of visits to coffee shops and restaurants was the distinguishing feature for people who made more total visits to their PFE. Figure 5.7 shows that for the 6 people who made between 60 and 84 visits to their PFE places per month, eating out exceeded any other food buying activity.

I further explored different types of PFEs, characterized by frequency of eating out or buying food for home-based meals and by frequency of buying direct from the farm. In a similar focus on food-buying patterns, Fan et al. (2007) identified 8 clusters among the American population in 2001-2002, based on where and how people spent their food dollars. These included the balanced cluster (29% of the population who allocated most of their food budget to ingredients for home cooking), the full service dominated cluster

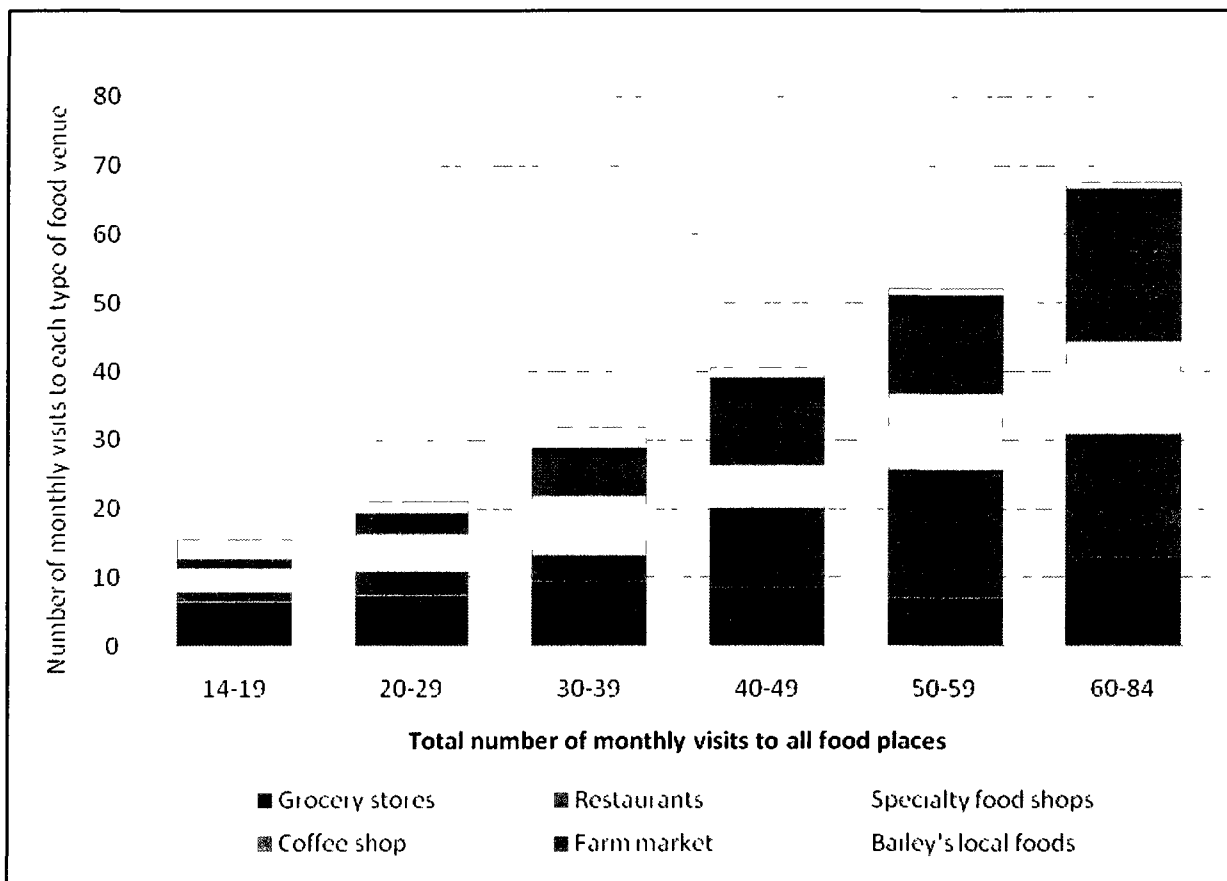


(20% of the population who spent 42.2% of their food budget at restaurants) and the fast-food dominated cluster (the 18% who spent about half their budget on fast food). Carlson and Gerrior (2006) used a different American survey from 1994-96 that empirically identified 11 clusters according to grams of food bought by source. These included the home-cookers (47% of the population), high service cluster (12%) and fast food cluster (5%). These clusters were statistically significant in predicting dietary quality by HEI score. These analyses underscore how much the American population changed in the places where they bought food over a period of six years. There is no equivalent published Canadian data, but trends might have been similar, and would have continued to change in the time interval to the present.

How would these different patterns affect the health quality of the diet? This is discussed in section 5.3 in this chapter. An initial look at how number of places and visits in participants' PFEs might be linked with dietary quality is presented in Figure 5.8.

**Figure 5.7 Personal Food Environments of different magnitudes (total number of visits per month) by different types of food destinations**

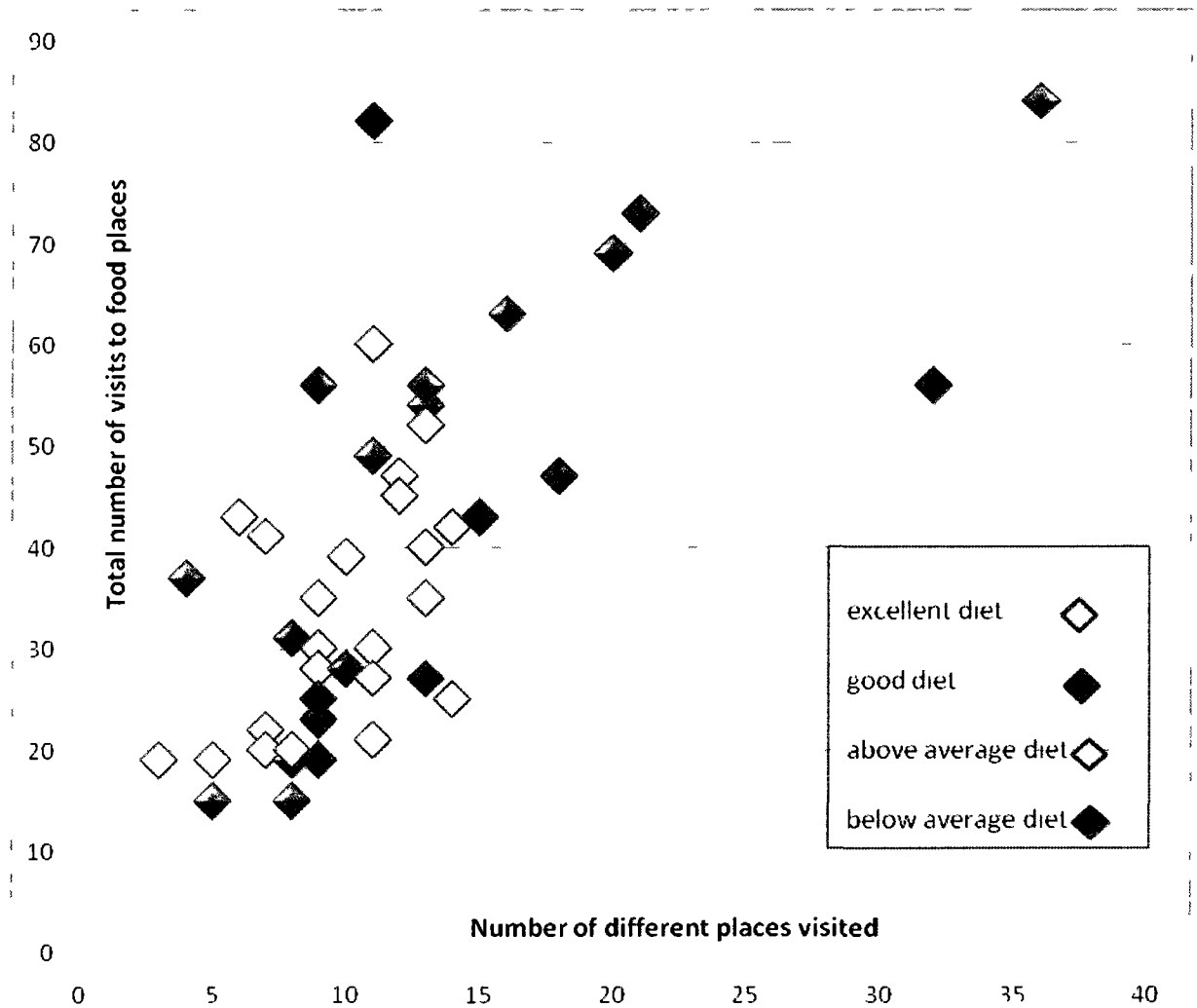
[see legend below]



**Legend for Figure 5.7**

<i>Magnitude of personal food environment</i> (Total no. food place visits/mo.)	n	Average number of visits per month to each type of food venue					
		Grocery store	Restaurant	Specialty store	Coffee shop	Farmers market	Bailey's Local Foods
		dk. blue	red	green	purple	aqua	orange
14 - 19	7	6.4	1.4	3.4	0.3	1.3	2.7
20 - 29	11	7.4	3.4	5.5	1.0	2.1	1.8
30 - 39	6	9.5	3.7	8.7	6.2	0.8	3.0
40 - 49	9	8.5	11.5	6.4	9.4	3.4	1.6
50 - 59	5	7.0	18.6	11.2	11.5	3.0	0.8
60 - 84	6	13.0	17.8	13.6	19.0	3.2	1.0

**Figure 5.8 Total number of monthly visits by number of places in the PFE for individual study participants, together with Healthy Eating Index quartile\* (n=44)**



\*HEI quartiles are defined in Table 5.2

Figure 5.8 depicts the range of PFEs among this study's participants, as characterized by the total number of visits to food places each month by number of different places regularly visited, for each individual. The colours highlight the dietary or HEI quartile of each individual. Although untested statistically, the trend towards clustering seems to be the group with an excellent diet (HEI 77 – 90), who

appear to be most inclined to visit the smallest number of places and make the fewest number of visits to those food places. Buying more food to eat at home and eating less frequently away from home (the pattern revealed in Figure 5.7 for those with a small magnitude PFE) may in turn be tied to a healthier diet on average.

• *Characterizing the Personal Food Environment: demographic attributes*

The next three tables (5.3 – 5.5) show a breakdown of average number of visits to food retail destinations by income level, duration of residence in Waterloo Region and number of children in the household. Statistical analysis was not carried out with this sample, but some apparent associations are of interest.

**Table 5.3 PFE characteristics by income level**

Yearly household income	n	Ave. # places visited (PFE)	Average number of visits per month for each income group					Ave. HEI <sup>d</sup>
			total food buying visits	grocery store visits <sup>a</sup>	restaurant, cafeteria, pub coffee shop, take-out visits	specialty store visits <sup>b</sup>	farm-direct visits <sup>c</sup>	
High >\$100,000	19	11.7	40.5	10.5	13.0	8.4	7.5	70.3
Mid-range \$50-100,000	11	13	39.0	10.5	16.3	5.6	5.5	67.4
Lower <\$50,000	14	10.5	36.0	7.3	18.1	6.0	4.1	65.1

<sup>a</sup> Large chain grocery stores or mid-size independent grocery stores (not corner convenience stores)

<sup>b</sup> Specialty grocers (e.g. Vincenzo's, Amar Halal, Tienda Latina, Asian food store, health food stores, bulk food stores), bakeries, fish shops, delis, butchers

<sup>c</sup> Markets, CSA pick-ups, farms, farm stores, buying clubs (pick-ups or deliveries)

<sup>d</sup> Healthy Eating Index – estimate of dietary quality; optimum score is 100

Table 5.3 divides the participants by income level. The two columns that stand out are the eating out category (visits to restaurants, cafeterias and coffee shops) and the farm-direct category (visits to places where food can be bought directly, or through a local distributor, from local or Southern Ontario farms). The lower income group ate out more often, which could be partly explained by the finding that the more regularly frequented eating-out places tended to be less expensive places such as pizza outlets, franchised coffee shops, local ice cream shops, pubs and work cafeterias. The frequency of regular visits to more expensive, full-service restaurants would more likely be monthly than weekly. There was a somewhat greater tendency for higher income participants to visit specialty stores, where food prices were higher, and farm-direct places like farm stores and large farmers markets which were further away from uptown Waterloo.

**Table 5.4 PFE characteristics by number of years in Waterloo Region**

Duration of residence in Waterloo Region (yrs)	n	Ave. # places visited (PFE)	Average number of visits per month for each "residence" group					Ave. HEI
			total food buying visits	grocery store visits	restaurant, cafeteria, pub & coffee shop visits	specialty store visits	farm-direct visits	
1 – 4	6	10.0	33.8	10.5	12.0	5.0	4.3	69.6
5 – 9	10	10.1	37.0	9.6	15.4	5.2	6.6	66.7
10 – 19	10	11.3	30.6	9.8	9.6	5.5	5.8	73.6
≥ 20	18	12.9	45.7	8.9	20.4	9.7	6.1	64.9

Forty one percent of participants in this study (18 people) had lived in Waterloo Region for twenty years or longer. As a group, as shown in Table 5.4, they made dramatically more food-buying visits per month, reflected particularly in visits to

specialty stores and eating-out. Two thirds of them were in the lower and mid-range income group, who seemed to eat out more often according to Table 5.3.

They would have built up a strong sense of place over time, developing a set of favourite places or

building social traditions around eating and buying food. In the interviews, they often expressed the meanings they attached to many of the places in their PFE, and their sense of belonging, in terms of feelings of nostalgia and familiarity about certain places that they had continued to frequent for many years, as well as loyalty and long-term social relationships with owners of food places (Chapter 3, section c). This group of long term residents included adults of all ages. There did not seem to be a clear association of duration of living in Waterloo Region with diet quality in this study; but in other studies in different areas, this might be the case.

Age range of participants living in Waterloo Region for 20 years or more:

20-29 yrs.....3 people  
 30-38 yrs.....4  
 40-49 yrs.....3  
 50-59 yrs.....6  
 60-69 yrs.....2

**Table 5.5 PFE characteristics by number of children in household**

Number of children in household	n	Ave. # places visited (PFE)	Average number of visits per month for each household type					Ave. HEI
			total food buying visits	grocery store	restaurant, cafeteria, & coffee shop	specialty store	farm-direct	
none	16	11.9	39.7	7.4	19.8	7.0	4.9	66.6
one	10	14.7	38.3	8.3	13.7	7.4	8.0	70.7
2 - 4	13	8.8	32.9	11.2	8.5	6.5	5.8	67.3
Adult children at home	5	12.2	50.8	14.2	22.8	7.0	5.4	68.0

Embedded in the data in Table 5.5 are family dynamics related to size, which can be interpreted with the help of the interviews with parents of children under the age of 18 (30% of the study population). The five main subthemes that emerged from parents' comments about the influence of their children on the food places they chose have been summarized, with sample quotations, in Table 5.6 below.

Starting with columns seven and eight, Table 5.5 suggests an increased number of visits to specialty stores and farm-direct places for families with one child. This figure may result in part from the parents of infants and toddlers at the stage of introducing table foods, who said they had made changes to the places where they bought food. Having decided that pesticides on produce or hormones in meat were unhealthy for their developing child, four of them said they made trips to special butchers or farm stores; three others mentioned trips to different food stores for organic baby food and organic produce. Other parents visited special stores to buy food their child preferred or needed for conditions like allergies. Parents of school-age children also mentioned that they liked going to farm-direct places for recreation or because they felt it was a good learning experience for their children. These places had not been part of their PFE before having children.

As well, Table 5.5 shows that eating out dropped, on average, from 19.8 to 13.7 to 8.5 times per month for families with increasing number of children. Their reasons for this included cutting costs, finding eating out with children more stressful, concern about the quality of food for children, or finding certain previously-familiar places to be unfriendly to small children. Respondents with one child seemed to have, on average, a slightly better diet than those without children.

**Table 5.6 The influence of children on choosing places in the PFE**

Subthemes and sample quotations from parents about their children	People, quotes
<p>1. <i>Parents seek out places for perceived healthier, safer foods for children</i></p> <ul style="list-style-type: none"> <li>•The organic store, I started going there a lot more since [baby] was born. Part of that was, you know, doing some reading about contaminant load in children and young infants, and just wanting to not expose her to things if I knew that I could avoid it. So I buy her organic baby cereal from there.</li> <li>•But now that we have [baby], we know we have to introduce red meat for her iron, and we found a place that sells meat that is hormone-free and drug-free called The Healthy Butcher, all the way down Victoria.</li> </ul>	11, 21
<p>2. <i>Child-friendly or unfriendly places</i></p> <ul style="list-style-type: none"> <li>•I go to the market once every month or two at the most, like not very often. I just find it's a pain to go there with kids. When we didn't have kids we went more often.</li> <li>•And now it's become sort of a tradition, a family meal out, if me and my partner and the kids are doing a dinner out, we'll go to the pizza place. Mainly because we love pizza, and it's an easy thing to do with the kids, it's very stroller friendly, very kid friendly.</li> </ul>	11,21
<p>3. <i>Children learn about food at places</i></p> <ul style="list-style-type: none"> <li>•We try to teach our kids... you know, cooking our own food, walking places-- that's what we <i>do</i>. We compost, we have tomatoes growing out front, and we go to the local buying club. And they [children] get to pick out our food from the list there (<i>at the buying club</i>).</li> </ul>	7,10
<p>4. <i>Changes in parents' food buying and eating out due to children</i></p> <ul style="list-style-type: none"> <li>•Um, things have changed a lot in the last year. Before the baby was born, we ate out at least once a week, <i>and</i> maybe take-out another time in that week. Whereas now we're kinda budgeting more. So now we probably eat take-out about three or four times a month but we don't eat out hardly at all anymore.</li> <li>•I started to go to [sandwich shop] right after I had my first son. It was one of the few places in uptown that had sort of a quick snack type of lunch. It sort of became my daily socialization for me, sort of feeling isolated after having a newborn.</li> </ul>	8,13
<p>5. <i>Specific place for specific food type, brand for child</i></p> <ul style="list-style-type: none"> <li>•So my son literally lives on M&amp;M chicken strips – that's all he eats. Again and again and again, like night after night after night. So that's where I go every week to pick those up.</li> </ul>	4,4



## **b. Discussion**

The initial examination of the quantitative data from this study served a dual purpose: first, to explore the potential of a new indicator, the PFE, as a novel way of measuring and assessing the set of routine places individuals choose to buy food and eat out, in terms of numbers of places and visits to these places; and secondly, to see what range of variation might occur in the PFEs of residents of a particular neighbourhood, along with demographic attributes of these residents (in this case: income, duration of residence in the area and number of children). The latter area of investigation could be applied to other neighbourhoods in a similar fashion, adding the possibility of comparative analysis.

First, the PFE as a tool was fairly easy and quick to use in a one-to-one interview setting with the help of a map and prompting by the interviewer. Regarding its accuracy of measuring routinely-visited locations and frequency of visits, the PFE as a method should be validated in the future with other population groups, possibly through triangulation with real-time activity patterns recorded through GPS technology and with a written survey (such as a chart of food places and frequencies completed by respondents).<sup>24</sup> Triangulation, which compares data about the same phenomenon but is arrived at using different methods or theoretical perspectives, is especially useful for research involving mixed methods (Flick 2007).

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<sup>24</sup> Both of these methods are currently being used by the 2007-2010 NEWPATH study in Waterloo Region (Neighbourhood Environment in Waterloo Region- Physical Activity, Transportation and Health study), funded by the Heart and Stroke Foundation of Canada and the Canadian Institutes of Health Research.

Regarding its objective meaning, the PFE is a representation of habitual use of urban food space only; it can also be visually represented on a map. In order to become subjectively meaningful, the number and type of places and visits must be supplemented with qualitative information—this can vary by the purpose of the study. If the PFE is to be used as a measure of individual access to food within the food environment, it must be supplemented with information about the types of foods that are available at the locations visited. If the PFE is to be studied as a mediator of diet, then dietary assessment must be part of the study. In tandem with other data for a specific population, I suggest that the PFE can be a useful, measurable component. As it stands now, the PFE may benefit from further standardization (e.g. in terms of what is considered “routine”, and what is considered proximal or “far” from home) and an additional component of method of travel could be added.

Unlike real-time measures of travel and activities at destinations, the PFE is a way of measuring individuals’ *usual* pattern of use of the food environment. It could be compared or used in conjunction with other representations, such as activity space “ellipses” of “buffers” (Sherman et al. 2005); geo-ethnography (Matthews et al. 2005); activity space experienced foodscape or ASEF (Kestens et al. 2009); or concept mapping with dietary behaviour and physical activity (Lebel 2010). These recently-developed methods are all part of an experimental effort to find tools to help understand the complex interactions between people and their environment, for the purpose of informing urban planning, improved health and quality of life.

Regarding the second purpose mentioned above, the range of variation in PFEs among the 44 participants in this study was considerable, varying from about three to

over 30 different food places visited per month. The overall distribution, however, showed that the majority of participants routinely visited between seven and fourteen places monthly. The wide variation in the PFE shows that this measure of degree of use of the food environment may be a useful variable in research that explores its relationship with behavioural and other indicators.

The above analysis set the foundation for further analysis in the next section, in which I investigate links between the range of dietary quality scores and PFE characteristics as well as specific meanings of place and sense of place.

### **5.3 Links between meanings of place and dietary quality**

The *place-diet links* depicted in the centre of the conceptual framework (Figure 1.4) represent a subset of meanings from among the multiple meanings embedded in Personal Food Environments and in Personal Sense of Place (at the left in the framework, previously discussed in Chapters 3 and 4). These place meanings stand out because the interviewees from this study have talked about them and acted upon them in distinctly different ways that also appear to be associated with personal food choices and consequently diet quality.

**Table 5.7 Descriptions of place-diet links**

Place-diet link	Description of meanings inherent in links (from interviews)
Meanings of eating-out places	<ul style="list-style-type: none"> <li>• social and subjective meanings of places where food is consumed (restaurants, pubs, cafeterias, coffee shops, take-out places) that lead to, or result from, routinely spending time there. Certain meanings make eating-out places more attractive to some people than others, leading to different numbers of visits.</li> </ul>
Meanings of farm-direct food places	<ul style="list-style-type: none"> <li>• subjective meanings inherent in places that are chosen particularly because they are part of a short food supply chain; and spatial meanings that result from taking alternative travel pathways (meaningful in themselves) from those to the conventional chain grocery stores, i.e., places that involve driving in rural areas or walking/cycling/driving to urban pick-up points or markets. Certain meanings make farm-direct places more attractive to some people than others, leading to different numbers of visits. The meanings of farm-direct places are also linked to a global/local sense of place, or a heightened sense of connectedness between food and its source.</li> </ul>
Active involvement in food environment	<ul style="list-style-type: none"> <li>• a sense of place that entails a feeling of control over, knowledge of, or involvement in various aspects of the food environment; it includes actions that influence the food-buying environment and/or personal food-buying related actions.</li> </ul>
Impulsiveness in food environment	<ul style="list-style-type: none"> <li>• a sense of place in which people acknowledge in themselves (positively or negatively) a degree of passive response or spontaneity at food places and within the general food environment, leading to impulsiveness in food buying and acceptance of the status quo.</li> </ul>

I identified four such links in my study (Table 5.7). More links could likely be found and tested in larger studies with more specific questions, following up from the meanings that emerged from this study. For example, “fast food” is a *place* category that has been extensively researched as the density of franchises within neighbourhoods in relation to obesity or income level, with various results (Cash et al. 2007; Kwate et al. 2009; Jones et al. 2009; Pearce et al. 2009). I did not specifically probe for this category, as I wanted meanings to emerge. It is a complex area because fast *food* (referring to

convenience food high in calories, fat, sodium and/or sugar) is available ubiquitously, including at grocery stores, farmer's markets, cafeterias and other places. Nevertheless, meanings of place at fast food franchises would merit special attention as a place-diet link. Other potential place-diet links to study would be meanings related to the presence of small neighbourhood markets or community gardens.

#### **a. Meanings of eating-out places and diet**

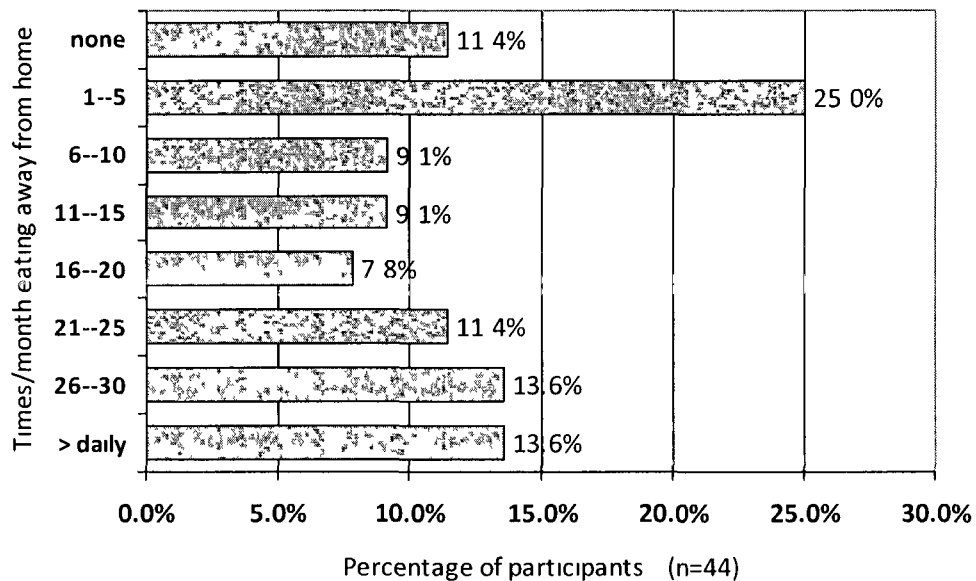
Many participants in this study expressed social and subjective meanings related to the eating-out places which they visited routinely. I refer to “eating-out places” rather than “eating out” because it puts the focus on place rather than behaviour in general. These meanings, beyond the food that they consumed there, were discussed in Chapter 3. Social meanings included interactions with family, friends or colleagues, communication with the farmer or retailer, and supporting a small-scale business. Subjective meanings that people expressed about coffee shops, pubs, cafeterias or restaurants included feelings of familiarity and comfort associated with the food, the ambience, the space created to read or write, or to take a break from work or studies.

In spite of the strong social and subjective meanings of place related to eating away from home, there was considerable diversity in this practice, as Figure 5.9 shows. The data reveals a spectrum of habits with respect to eating out, ranging from 11.4% of study participants who had no regular visits to eating-out places in their PFE to the 27.2% who ate away from home almost every day or more than daily. A quarter of the study group ate out only once a week or less often—according to the interviews, some felt they could not afford to (especially those with children) or they felt the types of foods in most

restaurants, coffee shops or cafeterias was not healthy, safe, sustainably produced or culturally familiar. On the more positive side of their rationale, most of these people enjoyed preparing food at home or felt committed to it, and planned around that.

Table 5.8 makes the link with dietary quality. It divides the study group into quartiles by HEI value, as was done in Table 5.2. It suggests a pattern that in this study, dietary quality was inversely associated with the average number of visits to eating-out places per month. Figure 5.10 illustrates this data more graphically, adding all types of eating-out retail places together.

**Figure 5.9 Range of number of visits per month to eating-out places (restaurants, pubs, cafeterias, coffee shops, take-out food)**



**Table 5.8 PFE characteristics (Eating-out places and farm-direct places) by HEI quartiles**

HEI quartiles [range] Score out of 100	Ave. # different places visited  (PFE)	Average number of visits per month for each diet quartile			
		Total food retail visits	restaurant, pub, take-out, cafeteria	coffee shop	farm-direct
Below average diet n=11 [ $<58.8$ ]	14.3	47.0	16.8	10.0	4.5
Above average diet n=11 [ $58.8 - 70.0$ ]	11.1	39.3	7.9	10.0	4.4
Good diet n=11 [ $70.1 - 77.0$ ]	12.8	40.1	6.5	7.3	7.2
Excellent diet n=11 [ $>77.0$ ]	8.5	27.4	3.8	0.7	7.5

**Figure 5.10 Average number of eating out visits/month (restaurants, pubs, coffee shops, cafeterias, take-out) by diet quality**



The most immediate connection between frequent eating out and reduction in diet quality lies in the food itself, based on the observation that meals prepared commercially are generally more calorically-dense and of larger than normal portion size than food prepared at home. Moreover, in order to make a profit while keeping prices low, much of the retail food that is prepared for on-site consumption largely consists of inexpensive (starch, sugar and fat-based), highly-processed (high sodium) food because it requires minimal and low-cost labour and minimizes spoilage; this is the case even at many sit-down restaurants. High-service restaurants generally offer more diverse, fresh and better quality food, but would be visited less frequently because of the much higher cost per meal. Food consumption away from home was often reflected in the diet recalls as a higher proportion of processed food and excess calories, which led to lower HEI scores.

It must be noted that more affordable eating-out places with healthy food do exist (and were visited by some participants); and that conversely, food bought for home consumption can include highly-processed convenience food. It would be wrong to conclude that eating out is detrimental to dietary quality *per se*, or that eating at home is by nature healthier. There is surprisingly little published information about the nutritional quality of non-chain restaurant food, and almost no recent population-based data about the frequency and patterns of eating out in Canada<sup>25</sup>. The food environment is in a continuous state of change, so that data of a decade ago is no longer applicable now. Recognizing the continuously growing trend of the eating-out culture in North America as

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<sup>25</sup> The Canadian Community Health Survey 2.2 (2004) gathered data on meals eaten out during the one-day survey, including the type of places and what people consumed; but the raw data has not yet been analysed (personal communication with Didier Garriguet, Statistics Canada, July 2010).



well as the lack of recent data, Saelens et al. (2007) developed and validated a *Nutrition Environment Measures Study Restaurant* (NEMS-R) assessment tool that can be used to characterize restaurant environments. Having applied it at 217 restaurants in Atlanta in 2004-2005, they found that

there were several differences between nutrition environment variables in sit-down versus fast-food restaurants, although neither restaurant type was consistently more healthful. Fast-food restaurants had greater healthy entrée and main-dish salad availability, but sit-down restaurants had a higher proportion of healthy main-dish salads and more healthy food and beverage items. Fast-food restaurants more often encouraged large portions, unhealthful eating, and overeating, and offered relative cost savings for combination meals, but were also more likely to provide nutrition information and highlight healthy options (273).

It seems clear, therefore, that making assumptions about the health value of food served at certain types of eating-out places is not entirely valid. For this reason, I pooled the visits to eating-out places into one figure for this small-scale study; larger samples could examine different types of places (e.g. fast-food, take-out or sit-down restaurants).

The apparent inverse association between the degree of eating out and HEI score in this study may in fact indicate a *place effect* on dietary behaviour—arguably, a mutually-created place effect built on attributes of a place and the personal meaning that individuals give to that place. That is, it is not a place effect solely because of proximity, in the sense that all residents are drawn to eating there, nor is it driven only by the food served there. For some, what must be acknowledged (as it emerged from the interviews) are the multiple layers of simultaneous experiences, feelings, interactions, decisions and food options that happen at an eating-out place while they are there, alone or with others. This includes eating-out places of all kinds ranging from hotdog stands to white tablecloth restaurants. Being there might regularly fulfil a social connection, a stress-

reducing break, a hunger-assuaging binge or a rare feeling of comfort in culturally-familiar surroundings. At the same time, these layers of experience and environment might conspire towards the gradual accumulation of excess calories, saturated fat and sodium resulting from repeated instances of a side dish of fries, a shared piece of cheesecake, a second round of beer or extra order of samosas, the usual grande caramel latte while studying at an internet café or the choice of a double grilled cheese burger with bacon after a day of strenuous work—all of which might be less likely to have been consumed at home. These examples illustrate the connections (as shown in the conceptual framework) between place meanings and habitual diet as measured by the Healthy Eating Index.

What can be deduced from this perspective is that place matters, and eating routinely at certain places matters for some people. The demand for places where people can spend time away from home and consume food at the same time will continue. Health promotion strategies and urban planning policies need to acknowledge this, by enabling the pairing of healthier food with places in the community that people find meaningful: for example, where they want to congregate, spend time alone or nip in daily on their way home.

#### **b. Meanings of farm-direct food places and diet**

Twenty-eight of the interviewees (64%) talked about the ways in which they imagined food, not just as an edible item but linked with other places. They spoke of their awareness of local food sources, the dilemmas they faced in choosing foreign or Canadian foods, the ethno-cultural food connections they cherished and environmental

issues they knew were connected with food—as I discussed in Chapter 4, Section 6. I have argued that these imagined connections signify a global/local sense of place (Massey 1997). Lockie (2002:282) calls this an “extension of social relationships beyond face-to-face interaction”, where people “actively construct and pursue representations of the ‘macro-social’ as they engage in situated social practice”.

Comments about locally-grown food were most common, and on the basis of these comments throughout each interview, I divided the participants into three different groups according to how important they felt local food connections were (Figure 5.11 below). Seventeen participants, or 39% of the study group, felt local connections were of high importance. Faegan (2007), from his studies in rural Southwestern Ontario, sees this valorization of place through locally-grown food as a *constructed* form of re-engagement of place that resists a homogenizing, globalized food system. The notion of place and the local, he says, are “urgent expressions of our contemporary geographic imagination” (30) and have helped to build a renewed sense of place “to recapture spatio-cultural identity” (32). These observations were borne out in the words of interviewees in my study, as several of them talked passionately about it; for example:

It horrifies me that we are in the middle of probably one of the best areas in the country to get local produce, and they don't stock it from the local farmers. And I don't care if all my tomatoes aren't exactly the same size and shape. I'd rather they'd be all funny shapes and be a variety and taste like a tomato. And meat, I need to know how animals are raised—they must be treated humanely. And like we shouldn't have to burn down the rainforest to get that. So, I guess... it's just part of my value system. I like going out to the farm and I like growing my own veggies, even if my dog digs them up (laughing). I'm what they call a locavore, a big ol' foodie.

Similarly, UK researchers noted the growing body of consumers who choose local foods not just as another product criterion, but who “are seeking to engage in a wholly

different type of relationship with farmers and food producers, based on reciprocity, trust and shared values” (Weatherell et al. 2003:234). They conducted a large-scale, mixed-method study that assessed public perceptions about buying local food. Meanings of food were changing due to a “heightened awareness... about conventional industrialized systems and their associated impacts on the environment, animal welfare, small-scale producers, etc.” (242). Their study identified, through focus groups, interviews and a survey in two urban and three rural locations, a sub-population of “concerned consumers”, namely the 58% of respondents who rated the above issues higher than price (242). This same group, on average, still shopped primarily at supermarkets and ranked health concerns above the origin of food; and there was no indication how their significant interest in local food translated into actual diet. Nevertheless, this study, conducted about eight years ago, served as a population barometer for changing perceptions about food, including connections to agriculture and production.

In a smaller-scale qualitative study with a Community Supported Agriculture (CSA) group in Wisconsin, Russell and Zepeda (2008) made the link between procuring food through an alternative retail channel and changes in attitude and behaviour. CSA members said they modified their eating and cooking habits (not specifically measured), increased their preference for seasonal products, and felt an enhanced appreciation for farming. The author suggested that these changes were generated by the structural elements of CSA including exposure to the farm, interactions with the farmer, and the constraints imposed by a pre-selected bundle of vegetables.

In my study, when the different perceptions of importance were matched with HEI scores, those with the highest scores were almost all ones who talked most strongly about

local food (Figure 5.11). This was echoed in a study of American adolescents, in which those who reported that it was somewhat or very important to them that their food be locally grown, organic, non-genetically engineered, and non-processed were more likely than their peers to have a healthy dietary pattern (Robinson-O'Brien et al. 2009).

**Figure: 5.11 Perceived importance of local food connections by diet quality**



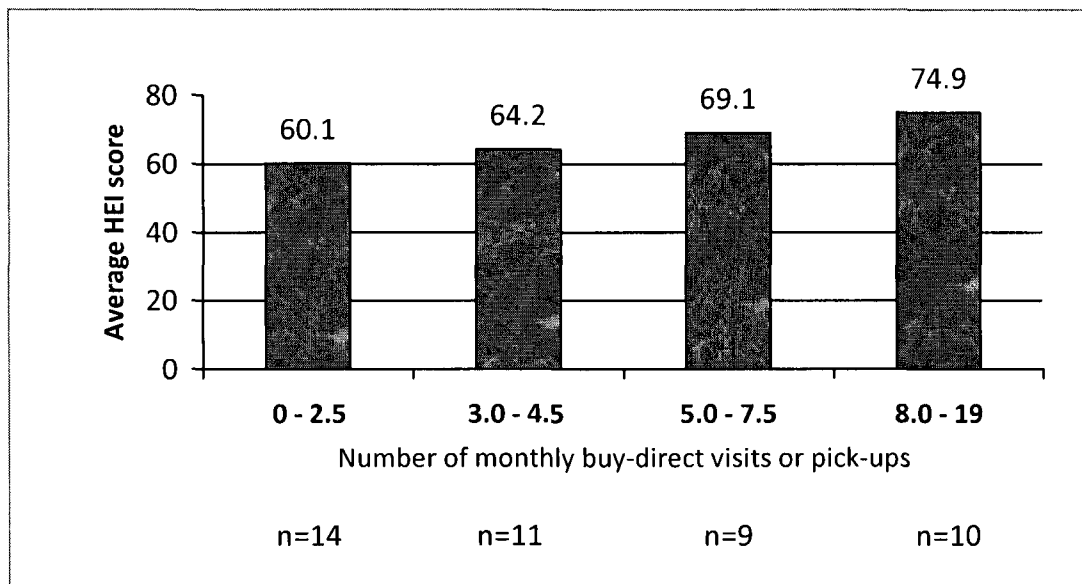
Legend for figure 5.11

Perceived importance of local food connections	n	Dietary quality: HEI quartiles [range] Score out of 100			
		Below average 40.6 - 58.3	Above average 60.2 - 70.0	Good 70.6 - 76.0	Excellent 77.3 - 90.0
High importance	17	2	2	3	10
Moderate importance	14	5	3	6	0
No importance	13	4	6	2	1
Total	44	11	11	11	11

Figure 5.12 below shows the connection, in this study, between diet quality and the number of times per month people visited places where most food for sale was sourced directly from local farms (Waterloo Region or Southwestern Ontario). There was

a 14.8 point difference in the average HEI scores of the 14 participants who visited such places either infrequently or not at all and the ten participants who visited them at least twice a week. The latter group would typically be part of a buying club or CSA program with weekly pick-ups of local food, and also buy from a farm store or local market.

**Figure 5.12 Diet quality (HEI) by monthly "buy-direct" visits  
(visits to farms, farm stores, markets; buying club or CSA pick-ups)**



The practice of buying farm-direct was reflected in participants' diets in terms of their meeting recommended amounts of fruit and vegetables to a greater degree than others—especially whole and dark green or orange produce, which gain points in the HEI. People who went out of their way to purchase this food also tended to be more aware of other types of foods that are grown or produced locally, like meat, chicken, grains, pasta, dried beans, honey and maple syrup. These unprocessed foods appeared in their diet recalls, where participants had used them as ingredients for home cooking. The overall impact was a more nutritious diet as determined by HEI criteria.

In spite of the apparent association of farm-direct buying with diet quality, only ten participants out of 44 mentioned the word nutrition or nutritious in the interviews<sup>26</sup>. Twenty-four participants, or just over half the study group, mentioned the word “healthy” in their responses; 11 of those were in the top two HEI quartiles. This suggests that in this study, many people seemed to choose what they consider to be healthy foods primarily for other reasons. Just as many people chose to eat out at places for social and personal reasons, with less healthy food intake being coincidental, it may be true that many people choose to buy local foods for a variety of reasons, with a healthier diet being a secondary consequence.

Respondents in this study who frequently visited places to source locally-grown food mentioned several different food attributes that they valued, including quality, traceability, trustworthiness, a “sense of worth”, “real food”, comfort, safety, taste, seasonality, tradition, health, freedom from contaminants, or being locally/humanely/sustainably/ organically-grown. They attributed various meanings to the food *places* as well, including feelings of community, social or environmental responsibility, ability to communicate with producers, and a sense of urban-rural connectedness; these meanings were illustrated in Chapters 3 and 4. The link to a healthier diet would be embedded in the fact that the types of food with the above-mentioned values overlapped with the criteria for a nutritious diet, particularly their unprocessed nature. The latter meant more whole produce, more whole grains and less sodium; it also required skills to prepare food at home, which in turn increased awareness of food ingredients. It is true that locally-produced foods also included processed items such as sausage, ice cream, beer, pickles

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<sup>26</sup> I did not ask a question about nutrition in the interview, nor made any mention of it myself, even when doing the 24-hour diet recall at the end.

and baked goods, but these were generally not consumed in large amounts in this study group (with a few exceptions).

It is possible that the acquired habit of thinking about food and food places with many linkages, by conceptually bringing global/local food connections/meanings into the decision processes of what to buy and what to eat, may be a mediator for healthier diet outcomes. It may prove to counteract the taste-price-convenience triumvirate of choice in the food marketing world, at the extreme end of which consumers are now encouraged to pick up packaged food at any location (including gas stations, pharmacies and department stores) without consideration of its content or origins (Farley et al. 2010). The shift to thinking about food in a more connected way, if it is indeed a trend, would likely happen in a gradually-transitioning fashion, both for individuals and populations. This development will be spatially uneven across geographical areas, depending upon what foods are grown, produced or hunted/fished/gathered locally, as well as how well-resourced populations are to enable change. Following up on the notion of the engaged consumer, food retail and diet merits further research; this is also briefly explored in the next section.

### **c. Active involvement in the food environment and diet**

In Chapter 4, I argued that intentionality and active involvement in their accessible food environment can be seen as an aspect of individuals' sense of place with respect to food. Evidence for this came from the interviews, summarized in Table 4.3, in which respondents talked about ways in which they could influence their food-buying environment (e.g. support local food business or create alternative models like buying clubs) and/or act in ways that would influence the foods they bought (e.g. eat seasonally,



preserve food, learn about the food system).

Using these categories, I created an index of direct-involvement (relevant to use of the retail food environment) for each participant by allocating one point for each of the following activities:

<b>Index of direct involvement in the food environment</b>	
One point each for participation in the following mentioned in an interview:	
<ul style="list-style-type: none"> <li>• use alternative food distribution models (e.g. neighbourhood buying club)</li> <li>• support small business, pay more</li> <li>• influence food availability in store by making request to manager</li> <li>• learn about the food system</li> <li>• preserve food, including freezing, drying or canning</li> </ul>	

**Table 5.9 Level of involvement in food environment and average HEI**

<i>Index of direct involvement</i> Number of actions related to control over, or knowledge of, food environment	n	Average HEI for group
None mentioned	12	63.9
One key action	15	67.6
2 or more actions	17	70.9

**Table 5.10 Level of involvement in food environment and HEI quartiles**

<i>Index of direct involvement</i> Number of actions related to control over, or knowledge of, food environment	n	Dietary quality: HEI quartiles [range] Score out of 100			
		Below average 40.6 - 58.3	Above average 60.2 – 70.0	Good 70.6 – 76.0	Excellent 77.3 – 90.0
None mentioned	12	4	4	3	1
One key action	15	4	4	3	4
2 or more actions	17	3	3	5	6
Total	44	11	11	11	11

In Table 5.9, the 44 respondents are divided into 3 groups by degree of direct involvement in the food environment, as defined by their participation in the index outlined above. Twelve participants did not mention any involvement in these activities, 15 mentioned acting on one of them, and 17 were involved in two or more. This index is purely exploratory and was derived from actions in common that emerged from the interviews; it by no means represents all the ways in which people can become involved in their food environment. This exercise was to test if engagement in the food environment with intentional actions meant to gain some degree of control over it might be associated with dietary outcomes. There did seem to be a difference in average HEI score for these three groups, as Table 5.9 shows, which suggests follow-up research is merited. Table 5.10 allows for more in-depth scrutiny in terms of the breakdown by HEI scores instead of an average score only. This does reveal a larger number of people who are less involved in the food environment gravitating towards the lower end of the HEI scale, and conversely, a tendency of more-involved participants towards higher HEI scores.

The place-diet link in this case might lie in one's sense of place, in terms of knowing one's environment well enough, and feeling sufficiently a part of it, that one might feel inclined to act intentionally within it to improve one's options and/or those of others. This type of association between sense of place and active involvement by individuals has been researched with respect to the natural environment, such as water and energy conservation, or action against environmental damage (James and Eyles 1999; Buzzelli 2008). In my study, when a desired type of food was not easily accessible in their neighbourhood, for example, a group of residents got together and formed a buying

club. Two such small-scale buying clubs (five to ten families) had been formed among the study group, with one member of each in my study group. As a result, they were able to buy organic ingredients (e.g. grains in bulk) that enabled them to prepare nutritious meals at home for less money; this was reflected in high HEI scores for the two members.

The respondents who preserved food, even if only a small amount, were dedicated to visiting markets or U-pick farms where they could buy produce in bulk so they could consume it later. Even though they could have purchased this food at the store later on rather than go through the effort of processing it themselves, they expressed a feeling of satisfaction that they had taken control: they knew where the food was from, and it was in their freezer or pantry for future enjoyment. That feeling of control over the home food supply transferred into cooking more adventurously, as some told me, and this was often reflected in their diet recalls in the form of multi-ingredient casseroles, salads, stews and blended smoothies (a challenge for dietary analysis).

The same sort of feeling applied for the 15 participants who said they expressly patronized small-scale businesses that they felt were potentially vulnerable, often ones that were selling or preparing locally-sourced or culturally-traditional foods distinct from what was available at chain stores and restaurants. Those who were actively learning about the global and local food systems were often the ones making the most radical improvements to their diets, for example, shunning highly processed foods they no longer trusted and learning how to prepare meals from new ingredients. This was especially the case for parents of infants and toddlers, as was previously discussed.

There were also participants who showed some signs of involvement but were resigned to eat in a more restricted way when their favourite food was not available.

I love the fall when the squash comes out—it becomes soup central around here. Asparagus, I don't eat until it's Ontario asparagus. Strawberries, that's June and I'll make jam. That said, both my husband and I have a *wicked* junk food addiction. We'd eat more produce and stuff in winter but you can't get much quality around here and the veggies are kind of blah.

A very recent, medically-focused study in Montreal has added weight to what I have called the place-diet link. Interestingly, it incorporated a similar concept to what I refer to as active involvement or control in one's environment (Paquet et al. 2010). In their case, *place* was exposure to fast food restaurants within 500 meters from residences (measured using GIS); *personal agency* was defined as “mastery, or perceived control over one's circumstances”; and outcomes of *diet* were measured in terms of a metabolic risk score composed of high-density lipoprotein, total cholesterol, waist circumference, body mass index, triglycerides, and glycated haemoglobin (324). For the 344 study subjects, these researchers found that higher sense of mastery (using a validated scale) was associated with better metabolic outcomes, and that “mastery may be instrumental in resisting unhealthful environmental food cues when these become ubiquitous, resulting in a greater health impact of mastery” (324). Furthermore, they found that “a positive relationship between mastery and lower metabolic risk was most apparent in environments with higher fast food exposure” (328). This finding mirrors, to some degree, my finding in Table 5.9, although the indicators in Paquet's study were more precisely defined and measured. Their psychometric index of “mastery” was not seen as related to the specific fast food places in people's environment, but as a purely behavioural trait. Therefore, its suggested mediatory role of “resisting unhealthful food

cues”, or a sort of immunity to the food environment as a pathogenic exposure, was speculative. Nevertheless, this was an impressive study; it shows that cross-disciplinary research can lead to intriguing results which beg follow-up and further sharing of methods.

In summary, my study provides preliminary evidence that people with a greater feeling of engagement and control over food they can access, deriving from a strong sense of place, also tend to eat more healthily. This is a hypothesis that needs to be tested in a formally-designed study with a larger sample and more precisely-constructed and validated questions. It will likely play out differently among diverse demographic groups and in diverse regions or neighbourhoods.

#### **d. Impulsiveness in the food environment and diet**

Another link between sense of place and dietary quality resulted from asking about the opposite perspective from the one above, namely how people might feel *controlled by* the food environment around them. I asked participants, “*Do you ever feel that the places where food is available drive you or otherwise influence you to buy food that you might not have planned to buy?*” To this question I received a range of responses that I presented and discussed in Chapter 4 (section b). As a complement to the query about agency and diet above, I wanted also to explore the possibility that variations in a *deterministic* aspect of sense of place (in terms of how people might feel more or less influenced to buy certain foods at places in their environment), might be associated with diet quality. For this purpose, I characterized the participants by their degree of impulsiveness, based on an overall nature of their interviews responses. The two

extremes of these characterizations were often quite clear from responses related to self-identity such as “I don’t buy on impulse” or “I’m definitely an impulse buyer.” These, and ones that related quite clearly to behavioural patterns that indicated impulsiveness or not, I summarized with selected key quotes in Table 5.11 below. The ones that seemed mixed or ambivalent I categorized in the middle category.

In terms of HEI scores, the most impulsive group of nine participants averaged about 10 points lower than the other two groups. Since average scores hide variation in a small-scale study like this, I also looked at the three impulsiveness categories by diet quartiles in Table 5.12. The differences here point in the same direction but appear subtle, likely due to the imperfect estimate of “impulsiveness” as a characterization, but also due to a possible weak association with diet. Nevertheless, again there appears to be an opportunity for exploring, in a more formal research study, if and how feelings of impulsiveness at place are related to choices that end up being made there, and are reflected in diet.

**Table 5.11 Degree of impulsiveness in the food environment and average diet quality (Healthy Eating Index or HEI)**

*“Do you ever feel that the places where food is available drive you or otherwise influence you to buy food that you might not have planned to buy?”*

Answer to question	number	Ave. HEI	Sample quotations about degree of impulsiveness within the food environment (each quote from a different participant)
Rarely, anywhere	16	<b>70.7</b>	I don't buy on impulse. I very seldom deviate from my list. We try to keep a pretty clear budget. I try to plan all our meals for the week and the stores that I go to. I'm pretty much a creature of habit. I'm very, very organized. I don't buy things for the sake of buying.
Sometimes, in some places	19	<b>69.1</b>	Impulse... that's the cafeteria. I'm sort of routine in food purchasing, but I'll often get stuff on sale. I prefer the grocery store that I know, because at the market I get tempted and bring home things that were not on my list. I used to do more random shopping, but with the baby here, I plan more because I don't have as much time to shop.
Often, at several places	9	<b>60.5</b>	I'm definitely an impulse buyer. I buy food on impulse all the time. I don't use a shopping list. If you go to the grocery store hungry? Absolutely. I spend too much money, every time. I'm very driven by trying different brands.
total	44		

**Table 5.12 Degree of impulsiveness and HEI quartiles**

Estimated degree of impulsiveness in the food environment	n	Dietary quality: HEI quartiles [range] Score out of 100			
		Below average	Above average	Good	Excellent
		40.6 - 58.3	60.2 – 70.0	70.6 – 76.0	77.3 – 90.0
Rarely, anywhere	16	2	4	6	4
Sometimes, in different places	19	4	6	4	5
Often, at several places	9	5	1	1	2
Total	44	11	11	11	11

The place-diet link here, to the extent that it is discernable, is most clearly derived from the responses of some participants as they described feeling almost disempowered in certain environments where choices were overwhelming and “tempting”. Twenty nine participants (66%) gave examples of commonly buying sweets or highly processed foods on sale, or on a whim. This would not be considered out of the ordinary; but nine respondents from this group were particularly vehement in their responses, bemoaning a sense of powerlessness at certain places in terms of being “unable to resist”. It was this group that scored more poorly on average on their HEI assessments, the result of a greater proportion of less nutritious food items on their diet recalls – the most obvious place-diet link.

There were also a few people who said they sometimes acted impulsively towards buying healthier foods, as the 16 people who told of spontaneously buying fruit in season at roadside stands or being tempted to buy new and different products from the Bailey’s Local Foods on-line ordering list. This illustrates the need for developing a more precise measure for impulsiveness in the food environment. Impulsiveness may be primarily a personality trait, but what is of interest is how different people can act with different degrees of impulsiveness at the same place, or how different places bring out impulsive behaviour (or not) within the same person.

#### **5.4 Concluding reflections**

Four “place-diet links” were identified in this study, based on the apparent associations between meanings of place and diet quality. Among the participants in this study, those who visited eating-out places less frequently and those who visited farm-



direct places more frequently had, on average, healthier diets. This would have been related to the types and quantities of food available at these places, but the regularity and frequency of visiting these places was linked to the various meanings they had for individuals, as was discussed in previous sections of this chapter.

The meanings of place also add a layer of complexity, because they can be related to positive experience in the food environment but have negative health consequences. For example, several people regularly enjoyed an extensive amount of eating out at a wide variety of places, which built on and enhanced their sense of place; yet, this practice was also, on average, linked with a diet that did not meet recommendations for optimal health. Similarly, impulsive or spontaneous food buying is good for local businesses and the economy; it also is part of an enjoyable food shopping and eating out experience for many people, but may over time lead to unhealthy eating habits. Sense of place, as many authors have shown, is clearly related to health (Eyles and Williams 2008); however, the fact that the role of food and food places are absent in such studies may be related to inherent complexity in people's relationships and interactions with the food environment.

Overall, the findings from this chapter of my study are derived from a population subgroup that is on average highly educated and of somewhat higher income than the average Canadian. Three quarters of them had Healthy Eating Index scores that exceeded the Canadian average, although I used the same method of analysis as Statistics Canada (Garriguet 2009). However, the Statistics Canada data (from 2004) were obtained in a slightly different manner (one or two diet recalls, personally completed) and represented Canadians across the country who experience great geographic differences related to food availability. Thus, it may not be justified to compare the HEI scores of these Waterloo

residents with that of the average educated Canadian. It may also be that participants who joined the study self-selected towards a greater interest in current food issues, and that general awareness of these issues has increased between 2004 and 2009. To date, I know of no other published data on HEI scores in Canada that are based on the same new dietary analysis methodology created by Statistics Canada (Garriguet 2009) and that could be compared to my data.<sup>27</sup>

Meanings of place, and the place-diet links in this study's model, add a dimension of understanding to the reductionist tendency, in current research, of viewing diet (or more often, body mass index) simply as the outcome of dependency on food at proximal locations, and viewing food places simply as locations where certain types of food are sold. Place meanings lend more insight into the circumstances under which people make food choices, choices which may be more closely associated with meanings of *place* than with the health value of the food—both positively and negatively.

The place-diet links are shown in the conceptual framework in Figure 1.4, but, as discussed previously in this chapter, they pertain to this study only and might vary with other populations. Future research could test these links with other populations to determine to what degree they could be replicated there.

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<sup>27</sup> The previously-mentioned NEWPATH study in Waterloo Region has used the Garriguet (2009) method for analysing the dietary information that their participants entered electronically; however, results of that study are not yet available.

## **Chapter 6 Discussion and Conclusions**

### **6.1. Overview**

This study has shown how food and place are mutually constitutive. For each individual, their personal food environment represents a meaningful part of their everyday experience of place; and through these intrinsic meanings, place is linked with dietary quality. I came to these conclusions through a mixed-method research design based on semi-structured interviews, a mapping exercise and dietary recalls with participants residing in uptown Waterloo.

This study's inquiry into the interwovenness of place and food at the idiographic level represents uncharted territory, as most research on these combined topics has been done with a nomothetic, empirical perspective (refer to Sack's model in Figure 1.1). Both place and food are rich and diverse in their individual meanings, but these meanings are changing in the context of a globalized world with increased trade, travel and migration. As such, they are becoming both more salient and more challenging to study. Further to the context, the majority of societal food preparation has moved from the kitchen to the factory and the restaurant, and more prepared/processed foods are bought and consumed in the public sphere. Simultaneously, a growing local food movement is providing alternative types of food retail and is starting to recreate urban-rural connections. Even nutrition professionals no longer understand what people are consuming and what motivates them to choose the food they do. Policy makers and urban planners are in need of information on which to base decisions to optimize the food environment in cities for health, livelihoods and liveability. It is therefore important to devise methods for tapping

into the ways individuals think about and experience place with respect to food, in order to give them a “voice” in the way cities are shaped.

The research questions I posed at the beginning of my study, listed again below, served to guide my research process in an iterative way. They led to complex discoveries (rather than definitive answers) which have been discussed throughout the chapters of this thesis. They also led to the development of a conceptual framework shown in Fig.1.4.

**Research questions for this study:**

- What relational meanings are embedded within individuals’ interactions with the food places they routinely visit?
- What roles does food play in shaping facets of personal sense of place?
- What patterns of difference exist among (a) the *meanings* people ascribe to food places and (b) aspects of *sense of place* with respect to food?
- Do any meanings of place or aspects of sense of place seem to be associated with dietary quality?

To ground these questions in place, I developed a hypothetical construct called the personal food environment (PFE), the set of places where a person routinely buys food and eats out. In this study, I assigned/measured various quantitative and qualitative parameters to the PFE and experimented with their potential usefulness for bringing insight to place-food interactions and meanings. In this sense, I was testing the hypothetical value of the PFE as a tool for future research. In this chapter I will discuss this methodological component, followed by a critical discussion of my findings on each of the research questions and their role in the conceptual framework. I then reflect on the value of the research questions and methods as a whole, as well as overall limitations and possibilities of this study.

## **6.2. The personal food environment**

The conceptual framework depicts the PFE as an individual's selection of food-related locations within the larger physical built environment. Conceptually, the framework shows the PFE as having relational (subjective, social and spatial) layers of meaning—a set of topological domains which guided both the semi-structured interviews and the initial analysis of my study. These three dimensions have also been used in previous models that illustrate relational components of complex concepts such as consumption (e.g. Sack 1992; Mansvelt 2005); but they were uniquely applied in this study to the individual experience of food retail places. The PFE is also shown as having quantitatively-measurable parameters (types and numbers of places visited, number of routine visits monthly to each place). Cumulatively, then, the PFE appears in the conceptual framework as a new research tool: a hypothetical construct composed of a “bundle” of meaningful attributes that have been initially tested and defined in an exploratory manner.

Methodologically, the PFE was useful as a research tool. It served to elicit in-depth reflections on the part of respondents, and in that capacity it provided evidence that it exists as an essential component of one's experience of place. The initial focus on the PFE in the interviews (combined with the mapping process, described in Chapter 2) grounded the discussion on specific, familiar places, a technique which succeeded in bringing out descriptions and meanings. In the interviews, centering attention on food places situated the conversation mentally at particular locations—this technique elicited a plethora of meanings. After having identified the places in their PFE (and usually being intrigued by the mapped representation of their regularly-visited food places) participants

typically spoke openly about their experiences, feelings and stories centred around those places. Having warmed up in the course of describing place details, many participants became more reflective about their general principles vis à vis their neighbourhoods, workplaces, distant food connections and the food environment in general, which provided insights about their sense of place. This stage in the interview also opened the way for candid thoughts about personal behavioural attributes like intentionality and impulsiveness, which seemed to be stirred up differently for people at different food places. It led to the notion that these attributes might actually colour a person's sense of place as a consumer, because of the feelings and reactions they could *anticipate* having at certain types of venues, thus attracting or repelling them. As well as these internally-directed aspects of sense of place, the externally-directed inclination or mindset of many respondents to choose or even influence food places based on community-building, social justice and environmental issues, seemed to me representative of a strong sense of place and an example of individual and group agency to shape or reinvent place. These types of responses by interviewees clearly showed that the PFE is an integral part of their experience of place, and therefore a useful tool for research on food and place.

The PFE does have inherent limitations as it was applied in this study, namely that: (1) it is time-consuming to accurately identify the routinely-visited places and discern their meanings; (2) skilled interviewers are needed to probe and encourage accurate and complete information about meanings from participants; (3) using a regional map in the interview requires map literacy, without which an alternative way to bring out place-based information must be devised; (4) the PFE will carry inherent error that results from self-reporting, namely lapses of memory, withholding information that may be deemed

sensitive (e.g. fast food restaurants or pubs), or the over-estimation of places to include ones that are not routinely visited; and (5) the PFE usually changes by season, and is more changeable for some people than others. Furthermore, it should not be assumed that the PFE is a complete indicator of one's food-related sense of place. The most significant place where food is prepared and eaten is the home, and often the homes of relatives, friends and caregivers; these were not included in my study. As well, other places such as food banks, community gardens, long term care facilities, daycares, churches, temples, mosques and synagogues where food is regularly consumed also contribute to meaningfulness and sense of place. I restricted my study to places where food was bought and sold, because of the greater element of choice in those places within the food environment, as well as the need to limit complexity for this study. However, further studies on food and place can take those into account, as some already have.

The PFE is a representation of an individual's habitual use of urban/rural food space at a particular time. Unlike real-time measures of travel and activities at destinations, it is a way of measuring individuals' *usual* pattern of use of the food environment. To estimate and improve its accuracy of measuring routinely-visited locations and frequency of visits, the PFE as a tool should be validated in the future with other population groups, and would also benefit from further standardization (e.g. in terms of what is considered "routine", and what is considered proximal or "far" from home) and an additional component of method of travel could be added. In this regard, the PFE is not unlike the process of dietary assessment with a food frequency questionnaire (FFQ, or usual dietary intake over a week or month). The FFQ has been modified and tested over many years and in many geographical and demographic circumstances, so that it is now an accepted

tool with both standard and flexible elements. The PFE will have to be applied in similar contexts to prove its usefulness over time.

Validation of key components of the PFE to estimate its accuracy as a data collection tool could be done by triangulation of its measurable components (e.g. number of places, number of visits per month) with other methods such as real-time activity patterns recorded through GPS technology, and with a written survey (such as a chart of food places and frequencies completed by respondents). With larger sample sizes, the PFE could be characterized quantitatively in additional ways, such as an activity space or physical area encompassing routine food-buying destinations (Daniel et al. 2009). Indices of active involvement and degree of impulsiveness and connectedness also need to be defined and validated with different and larger populations.

In order to become subjectively meaningful, the quantitative data must be supplemented with qualitative information, which could vary by the purpose of the study. For example, if the PFE is to be used as a measure of individual access to healthy or unhealthy food within the food environment, it must be supplemented with information about the types of foods that are available at the locations visited. If the PFE is to be studied as a mediator of diet, then dietary assessment must be part of the study. If the PFE is to be used to examine household food security, then a qualitative component should include questions that relate individual meanings of food security to specific food places in the PFE. Thus, in tandem with population-specific data, I suggest that the PFE can be a useful, measurable construct in mixed-methods research.



### **6.3. Research question #1: What relational meanings are embedded within individuals' interactions with the food places they routinely visit?**

This study focused on the relational layers of meanings that people experience at places in their food environment. The local, global, ethnocultural, health and environmental issues and concerns that were mentioned in the interviews were unprompted. Since each interview involved a fairly in-depth, open-ended discussion that focused explicitly on reasons for visiting food places, the argument can be made that their responses (or lack of them) about these connections likely reflect the degree of importance to individuals. The commonality of issues that emerged among a substantial number of respondents may be an example of how, “from the perspective of narrator, the geographer gains a sense of the *normative* significance of place” (Entrikin 1991a:59).

Several key findings emerged from the analysis of the interviews with regard to subjective, social and spatial meanings embedded in the PFE. It is important to acknowledge that these findings come from a particular sample of participants in a rather small area (three census tracts) of inner city Waterloo, an area which is well-provisioned with a variety of food stores and restaurants. The sample group was highly educated as a whole, although otherwise quite demographically diverse. The findings from this study are not necessarily applicable to other population groups, nor are they representative of the research area itself, as it was not a random sample. The findings represent an exploratory analysis, which needs to be replicated in other geographical areas and with other population groups to determine its methodological value and to enable comparative studies.

Six subcategories emerged through grounded theory analysis of the *subjective* dimension (Table 3.1) revealing two distinct angles to meanings of place in general. One angle related more to *past experience*, as in feelings of familiarity or comfort that were in turn related to memories, culture, tradition, history and smells and tastes of food at places. This was related to a larger sense of place that reflects belonging and community. The other angle towards place meanings embodied *change*—it was characterized by the opportunity to learn at places, and awareness about elements of uncertainty in the food environment. Thus, for some people, knowledge about aspects of food production, both locally and globally, led to the notion that one’s food buying choices might make a difference elsewhere. This was often expressed as feelings of social or environmental responsibility when buying food, as well as to feelings of trust or mistrust about certain places related to the food sold there. This, I would argue, was also an aspect of sense of place that reflects a broader feeling of local and or global connection.

A dual distinction of meanings also emerged from subthemes in the *social* dimension of PFEs. Sixty percent of participants chose certain places routinely because of direct social interactions, cultural ties and meaningful relationships with friends, family, retailers or farmers there. This could arguably be typed as *inwardly-directed*, or distinct from social interactions at place which were more *externally-directed* (although both meanings commonly existed for the same individual). The latter type of social meaning was expressed by a quarter of the study group who chose certain places for food because they saw them as “family-run” or “independent” and therefore distinct from chain restaurants, stores or supermarkets. For an equal number of people, social justice

issues such as adequate wages, treatment of staff and the sale of fairly-traded or “ethnically”-produced food were important in the choice of food places.

One of the *spatial* elements of the PFE revealed the variable nature of perceived distance in accessing food places. Distance was described in ways that were personal, relative and variable. People often equated distance, as well as choice of food venues, with time spent and how much they valued that time. Consequently, some of the variability in meanings of place was expressed in terms of *time*-related issues such as convenience, trip planning, mobility and scheduling. Perceived distance has recently been recognized as an accepted feature of relational space (Cummins et al. 2007:1827), and has started to receive attention as a predictive indicator (McCormack et al. 2008). The modeling of travel patterns and household-level activity scheduling has been a focus of research over the past decade (Doherty and Miller 2000; Sherman et al. 2005). Because of the routine nature of food buying, my study has introduced the idea that the perception of distance for food acquisition, as well as degrees of difference among people in their planning/decision-making of food-buying trips, may be valuable parameters to be included in planning or transportation models that aim to understand and predict travel behaviour patterns.

Proximity was another relational dimension of spatial meanings: it was expressed as a positive meaning when a place with desired qualities was situated nearby, and as problematic when undesirable food dominated in the vicinity of daily living/working spaces. Some respondents displayed a pro-active attitude to place when they wanted certain desirable foods or types of food places more closely accessible to them, by becoming involved in change-making actions to various degrees. This phenomenon drew

attention to aspects of food places that were valued for other characteristics besides the health value or affordability of the food itself (without diminishing the importance of these factors). The majority of respondents said they valued proximal food places that strengthened a sense of community, including bakery cafés, markets, CSA pick-up places, pubs or restaurants with patios. The two most prevalent wishes for neighbourhood improvements they mentioned were (a) smaller-scale food venues that encourage walking and opportunities for meeting neighbours; and (b) greater diversity of food choices close by. Other researchers (Cannuscio et al. 2010; Eyles and Williams 2008) have also pointed out the relationship between sense of place and healthy, safe communities.

Thus, attention to the meanings of food places in this study revealed some key observations: patterns in subjective and social attitudes to food places that were internally or externally-directed; spatial perceptions and food-buying travel routines that are time-related may therefore be relevant as criteria for activity-scheduling or agent-based models; and strong support for neighbourhood food venues that build community. Some of these findings may not seem surprising, but they would not likely have emerged as salient factors outside of qualitative research that highlights the perspectives and experiences of individuals. They need to be pursued in further studies to determine their prevalence and variability among other groups.

#### **6.4. Research question #2: What roles does food play in shaping facets of personal sense of place?**

This study also focused on how people expressed *sense* of place as it described their general feelings, understandings or interactions with food places. As was mentioned in section 6.2., analysis of the verbal data about specific *places* also reflected different

aspects of *sense of place*, out of which I noted the particular significance of sense of belonging, sense of agency (active involvement or impulsiveness) and sense of global/local connectedness. These were added as another dimension in the conceptual framework.

While the categories of meaning about specific food places were quite clear, the feelings about sense of place were more interpretive. My interviews did not include questions about sense of place, but the resultant participant narrative gave shape to this concept in the form of observations about place in general. The high degree of reflectivity among participants in this study was helpful; it may have been due to their level of education, in combination with interview circumstances/protocol which seemed to encourage such reflection (i.e. an hour for discussion, mapping their PFE, a focus on the meanings of places). Nevertheless, not all participants commented on meanings of place in general, or sense of place.

Some of the sense of place subcategories that I named (*sense of belonging, alienation, community, involvement, connection*) had previously been identified and studied in other disciplines as well as geography, although those did not focus on food-buying *per se*. I did not have these subcategories in mind when I began my grounded theory analysis; rather, they emerged during the analysis and crystallized as I compared them with existing theories about sense of place. For example, sense of belonging or community and its opposite, sense of alienation/exclusion, have been defined and researched in the fields of human geography, community psychology and planning (Cresswell 2004; Obst et al. 2002; Pretty et al. 2003; Manzo 2005). This construct was mirrored in my study, although my emphasis on how sense of community grew out of

individual experience at food places provided a new lens. It resonated with what a large body of literature has been documenting for several decades, namely the close relationship between food, history and culture (Bell and Valentine 1997; Counihan and Van Esterik 2008; Cooke 2009).

I also identified a separate subcategory for *sense of global/local connectedness* with respect to food, which acknowledges that experience of food places and food itself can trigger conceptual links with places of food production or traditions in another geographical space. This notion originally stemmed from Doreen Massey's concept of a global sense of place (Massey 1992).

In addition, the concept of *agency or intentionality* has been well theorized (Bandura 2001), including from the perspective of geographies of consumption (Sack 1992; Jackson 1993; Mansvelt 2008). This concept was echoed in my study with respect to food; for example, as people bought food (or not) in a planned manner, some chose places where they could educate their children about food, or where they could buy food in bulk to preserve it. A novel aspect of sense of place that emerged on this theme, however, was the clear sense of involvement and control over their food environment that several interviewees expressed; for example, starting buying clubs, avoiding food venues they felt did not match their principles, and actively supporting the ones that did. The salience of this phenomenon has been recognized in research on "food citizens (Wilkins 2005; Lockie 2009), and is an example of what Relph (2008b) would call a "pragmatic sense of place"—although again, in my study, this is related uniquely to food places.

My subcategory of *sense of impulsiveness/determinism* with respect to food places was new, however. This antithesis to intentionality emerged from respondents as they described how they tended to act spontaneously at certain retail places that they felt brought this on, and avoided certain locations to resist buying food impulsively. Others enjoyed the spontaneity of food purchases that certain food places encouraged, especially markets, specialty stores and restaurants. I have argued that this perceived determinism regarding place can be viewed as a facet of sense of place. Drawing a parallel, a sense of community encapsulates a feeling of belonging that is brought on when people think collectively of certain familiar places; similarly, a sense of impulsiveness encapsulates the feeling of lack of control or of *being influenced* that some people feel towards retail places in their local environment. In the literature, the term “place effect” (Macintyre et al. 2002), implying a one-sided deterministic force, is understood either as an external influence on behaviour or as a lack of choice in the proximal environment (in this case, lack of food choice or food availability). In the same vein, while impulsiveness is regarded as a personality trait for some, it may also be recognized as a contextual influence of places themselves; and as such, I would argue, it becomes a facet of sense of place. This idea needs to be further researched to add evidence (or not) to the body of research on determinism and place effects.

**6.5. Research question #3: What patterns of difference exist among (a) the *meanings* people ascribe to food places and (b) aspects of *sense of place* with respect to food?**

Research question #3 was answered through the analysis of the two preceding questions, where some key patterns of difference/commonality were found for this study population. I posed this question originally with the expectation that there might be

discernable patterns based on the degree to which people expressed meanings in any of the subjective, social or spatial dimensions. This analysis did not lead to any reliable findings, however; mostly because I lacked a standardized instrument which would allow such quantification. Some people were more verbose than others, and some were more inclined to express personal feelings than others. This can be seen as a critique of qualitative methods and grounded theory in general, as they rely on the information people choose to express voluntarily (Wasserman et al. 2009). Nevertheless, I did find a quantitative range of magnitude in PFEs among the 44 participants in this study that was considerable, varying from about three to over 30 different food places visited per month. The overall distribution showed that the majority of participants routinely visited between seven and fourteen places monthly. It was an interesting finding that a study population with the same proximal food environment in common still exhibited such a wide variety of PFEs, as this contradicts the commonly-made assumption that the proximal food environment determines what food people buy and how well they eat.

#### **6.6. Research question #4: Do any meanings of place or aspects of sense of place seem to be associated with dietary quality?**

Diet quality analysis of this study group showed a broad range of HEI scores for diet quality; the lowest diet scores also had an average BMI in the overweight category. There was no clear association between dietary quality and the household income ranges that I used in this study, which is in itself an interesting find. It suggests that the skills, knowledge and availability of healthy food that are needed for a healthy diet were present regardless of income, in this population group. This finding does accord with the fact that



a healthy diet does not need to be costly, especially when cooking with unprocessed ingredients.

The *place-diet links* depicted in the centre of the conceptual framework (Figure 1.4) represent a subset of meanings from among the multiple meanings embedded in personal food environments and in personal sense of place. These place meanings stand out because the interviewees from this study have talked about them and acted upon them in distinctly different ways that also appear to be associated with personal food choices and consequently diet quality. I identified four such links in my study.

A key finding was that participants who visited eating-out places more often had, on average, less healthy diets. As well, visiting farm-direct places (e.g. markets, CSA pick-ups, farm stores) was more frequently associated with higher HEI scores. These findings would be related to the types and quantities of food available there; but from the voices of interviewees, the regularity and frequency of visiting them was tied to the various meanings these places had for them, rather than by the nutritional nature of the food only. For example, eating-out places were primarily described in terms of social meanings and proximity to work or university. As hubs of social interaction, eating-out places contributed to sense of community and often catered to a sense of impulsiveness. Farm-direct places, on the other hand, were commonly linked with feelings of trust, health or environmental concerns, nostalgia, recreation or seasonal eating. It may be that the ability/habit to mentally connect food directly to its source (sense of local connectedness), and meeting people who produced it, makes people more aware of food quality and its value in an unprocessed form; this was expressed by several respondents. Further research is needed to test these place meanings and their relationship with diet.

There was also an apparent association, in this study, between degree of involvement with the food environment and diet quality. A crude index of involvement, with three degrees of action or planning (explained in Chapter 5), was derived from the interviews. It served to test if intentional engagement in the food environment, with actions to gain some degree of control over food availability, might be associated with dietary outcomes. Intentional behaviour such as routinely-planned food shopping trips, preserving, eating seasonally and actively becoming more aware of the food system is arguably related to sense of place, as it requires familiarity with what to buy where and when to maximize access to preferred food, as well as intentionally seeking information to achieve this. Degree of intentionality or involvement in the community food environment was directly related to diet quality or average HEI score, but follow-up research is needed to improve the validity and reliability of this indicator.

Degree of impulsiveness, based on three degrees of self-identified level of spontaneity (explained in Chapter 5), was inversely related to dietary quality or average HEI score in this study. A deterministic facet of sense of place, or the feeling of acting impulsively and possibly feeling controlled by the food environment, emerged from responses to a specific question on that topic in the interview, but also from discussing various meanings of place. Over half of respondents in this study sometimes or often felt impulsive (internally) or “driven” (externally) to buy unplanned food items at various places. Certain places brought that on more than others for specific individuals. Again, this merits further research.

In summary, the conceptual place links between diet and *meanings of place* or *sense of place* that emerged from the mixed-method analysis were eating-out places, buy-direct

places, active involvement in the food environment and impulsiveness at places in the food environment. These findings apply only to this study, and set the stage for further research among different demographic and geographic groups. They will consequently be of interest to professionals who depend on a wide range of data to inform programs and policy decisions related urban/rural planning or community health.

### **6.7. The value of the research questions and findings**

In support of my research statement (at the beginning of this chapter) that place and food are mutually constitutive, the results from my first two research questions were most important. Food is bought and consumed at places, and gives those places meaning. In turn, food can connect people conceptually to places even when those places are far away, and such place links can give meaning to food. Similarly, the experience of buying and eating food in the community contributes to *sense* of place, for example, contributing to sense of belonging, alienation, involvement, impulsiveness and global/local connection.

In support of the research statement (hypothesis) that the personal food environment represents a meaningful part of the everyday experience of place, the first two research questions were important as well. The PFE is not something that people normally contemplate very much, but when interviewed, study participants unhesitatingly described their feelings, social interactions and spatial perceptions that were tied to the individual food places they regularly visited, and frequently took charge within the interview process. Thus, it appears that the act of bringing on reflection about the personal food environment is a powerful tool to collect information about people's relationship with place.

In support of the statement that the meanings of the PFE link place with diet quality, the third and fourth questions were the most useful. Patterns of place meanings and sense of place that are found among a particular group of people can be tested for their relationship with diet; it is expected that these would differ among demographically and geographically different groups, and would also depend on the options available in the food environment.

## **6.8. Limitations and possibilities**

### *a. Applicability of method*

This study was of an exploratory nature, qualitative in great part and lengthy and in-depth in its analysis. The findings from a sample of 44 adults in a defined neighbourhood are not transferrable to other population groups. Yet this study identified a useful research tool (the PFE) and key variables which can inform research in the areas of human geography, health and planning. The next step is the application of the PFE and corresponding questions about the salience of places and sense of place with respect to food to other population groups in defined areas. In doing so, the research design must be modified to enable a more efficient process of data gathering and analysis. This could be done by keeping the focus on the PFE, but asking more specific and consistent questions about meanings and behaviours. Quantitative aspects could be determined with a carefully designed self-completed questionnaire. The result would compromise the breadth of findings, but would increase reliability (avoiding the need for multiple interviewers) and would simplify the analysis.

*b. Need for refinement of indices on place and food*

This study suggested new indices and variables that hold promise but require further testing—in particular, those from Chapter 5: perceived importance of local food connections (figure 5.11); index of direct involvement in the food environment (tables 5.9 and 5.10) and degree of impulsiveness in the food environment (table 5.12). In the preliminary analysis with this study’s participants, there was an apparent association with dietary quality; but these indices require more precise development and standardization, with reliability and validity testing. Apparent patterns and relationships that emerge must also be examined in other communities and the wider population in order to be of value to users such as planners, health programmers and policy-makers.

*c. Need for skilled interviewers for dietary assessment*

With respect to dietary data, the rigour that is achievable by the 24-hour recall method does require skilled interviewers. It appeared from this study that an (unknown) proportion of the population may be in transition towards making dietary changes that reflect the current shift in retail options, such as the greater availability of locally-grown foods in some areas and of fast food franchises in other areas. The dietary response to this will require sensitive tools that can identify both subtle and complex changes. For example, a gradual population-wide trend towards more home cooking will introduce more variability, and thus reduce the overall nutritional consistency that results from the regular consumption of branded processed food. The ability to demonstrate such a trend in diet quality among specific population groups, with sufficient reliability and validity, will be an important component of studies that aim to document dietary change.

d. *Subjective nature of meanings and qualitative analysis*

An inherent limitation in a grounded theory-based study is the subjective nature of emergent data. Different researchers who analyse the same data might come up with different categories. This further underscores the need for testing the PFE and dimensions of meaning as a qualitative tool with other populations and other researchers, with the aim to improve its reliability, streamline the method, and ultimately determine its utility over time.

e. *Possibilities for planning and research*

Dyck (2005) made the following key observation, which points to the strategy of arriving at knowledge from the subjective side as a way into broader applications (rather than the other way around):

A focus on the 'everyday' does not confine theoretical work to what might be erroneously thought of as merely 'local'; rather, it holds tremendous potential for opening up understanding of processes operating at regional, national and global scales (243).

Urban and rural environments are changing demographically, organizationally and structurally; and there is greater recognition of agency, or involvement of people in influencing their environment as well as acknowledgement of the influence of environmental factors on behaviour. These spaces of change are reflected in the production and availability of food, and are represented in a rapidly growing body of literature on the current food system and options for alternatives (Schlosser 2002; Petrini 2005; Pollan 2006). Popular responses to these issues have been examined at the theoretical and societal levels (Weatherell et al. 2003; Feagan 2007; Wilkins 2005), but only to a small degree with qualitative research (Lockie 2002). My research has revealed ways in which these ideas are playing out at the individual level and at specific food

places. For example, about half of this study's participants expressed an externally-directed sense of place or sense of global/local connectedness through the food they chose. The documentation of such changing attitudes to food is of interest to the work of health promotion experts, urban planners, food policy councils and advocates for rural revitalization.

Various models and approaches with which to research the complex area of people-place interactions are currently being tried within various disciplines such as planning and health. This study's place-based approach using the PFE with food and dietary components would add to that toolbox. The ability of this methodology to reveal meanings of place and various characterizations of sense of place may serve to identify key indicators that are relevant to agent-based planning or transportation models, and population health strategies. With a more detailed understanding and precise measures, the following place-based indicators identified in this exploratory study could be examined for their variability among population comparison groups. They underlie changes in meanings of places and may cause a shift in buying and dietary patterns.

- perceived travel distance, proximity
- social relationships between customers and food retailers, farmers or restaurant owners
- sense of belonging or alienation
- sense of active involvement
- sense of global/local connectedness

Another area of possibility is that urban planners would benefit from hearing citizens' insights about how they imagine healthy neighbourhoods. In reply to the question "How would you imagine an 'optimal' food environment for you, if you could redesign your neighbourhood or the city?", interviewees in this study responded with a

considerable degree of commonality. The three most prevalent wishes for neighbourhood improvements were (a) a weekly uptown farmers market; (b) more smaller-scale food venues such as specialty stores or café bakeries that encourage walking and opportunities for meeting neighbours; and (c) greater variety of food choices close by. This suggests that sense of place and a sense of belonging are tied to residents' ability to buy and consume food nearby that enhances diversity, and in ways that strengthen neighbourhood ties.

Following up on the notion of the engaged consumer and the shift to thinking about food in a more locally and globally connected way, and how this is related to food retail and diet would be of interest in further research. It is possible that the acquired habit of thinking about food and food places with multiple linkages, by conceptually bringing global/local food connections/meanings into the decision processes of what to buy and what to eat, may be a mediator for healthier diet outcomes. For example, evidence from the interviews suggested that food can attain extra value for a person, or be devalued, through imagined place links with the food's origins, influencing a person's food choices and consequently their diet. This suggests research questions for a future study, such as: Could heightened awareness regarding the geographical connections of food, or the tendency to seek out such information as a normal food choice criterion, expand one's way of valuing food, and consequently influence diet?

In summary, the conceptual framework as presented in this study is not a fixed entity but represents a way of imagining the interplay of parameters relevant to people-place-food interactions. It could serve as a template for replicating this study in different neighbourhoods in the same city, with demographically similar study populations and



different study populations (e.g. more culturally diverse or of lower average income).

This would provide both baseline data and sources of comparison regarding place-based food activities and meanings.

## **6.9. Final comments**

Meanings of place, and the “place-diet links” in this study’s model, add a relational dimension of individual place meanings to the more reductionist tendency in current research of viewing diet (or more often, body mass index) simply as the outcome of choosing food at proximal locations, and viewing food places simply as locations where certain types of food are sold. They lend more insight into the circumstances under which people make food choices, ones which may be more closely associated with meanings of place than with the health value of the food—both positively and negatively. Making population-wide generalizations based only on physical distance between people and locations misses the variability in personal criteria upon which people make decisions about places they include in their PFE.

My study group resided in a city within a region which is a mix of urban and agricultural land, an area which has seen considerable change in the past several years in terms of promotion and availability of food products for local consumption. As well, the foodscape in Waterloo Region has changed in response to global phenomena, including international food trade, the building of superstores that sell food and the inclusion of chain food retail outlets in new housing developments. Residents are exposed and receptive to these changes to various degrees, and act upon them in a range of ways.

From the standpoint of urban planning that strives for healthy communities, this study points to the importance of consultation with residents in different urban areas. It

suggests that policy that shapes the food environment should be based not just on corporate interests but also on the interests of residents. For example, as this study showed, a significant proportion of residents might want to access smaller-scale food retail stores or markets in their neighbourhoods where food can be sold from local producers whom they trust. Many of them also enjoy congregating socially or spending time away from home at places where prepared food is sold; therefore it would be beneficial if establishments (or street vendors) that sell healthier food/meals were encouraged in neighbourhoods by modifying urban and regional policies.

It was clear from this study that many residents are deliberately involved in enhancing their own food environment in various ways; these people also tended to eat healthier diets than those who acted more passively or impulsively in their food environment. Actions such as gardening, preserving food, starting family buying clubs, learning about the food system and joining CSAs or buying from farm stores could be seen as examples of citizen engagement. This illustration of how people can interact with their food environment rather than only be influenced by it can inform health promotion and urban planning strategies. It also shows the importance of including meanings of place in analyses of food-related behaviour, and sets the stage for further research in this area.

I have aimed in this work to operationalize what a growing number of human geographers have been advocating for in terms of alternate ways of knowing about place, and of conducting qualitative inquiry around the centrality of place. I hope to have demonstrated that it can yield some new insights into how a health-related indicator like diet might be influenced by the meaningful complexity of everyday experience of place and at places.

## APPENDIX

### Recruitment letter

#### *Food and place: how and why people navigate their food environment*

My name is Ellen Desjardins and I am a PhD student in the Department of Geography and Environmental Studies at Wilfrid Laurier University.

You are invited to participate in a study for my thesis research.

The purpose of this study is to understand why people choose the places where they normally shop for food or eat away from home. This interest stems from the fact that the places where foods are sold in our region continue to change, yet we are not sure how this matters to people in their everyday lives, and what difference it makes in terms of what they normally eat. The study will focus on adult residents of the area surrounding Uptown Waterloo.

This is not a marketing study for industry, but will be of interest to urban planners and citizens themselves.

Participating in this study means taking part in a personal interview with the researcher, for about 1 hour. During this hour we will identify and talk about the places (e.g. grocery stores, restaurants) that you usually visit during a 2-week period. In addition, there will be a short diet questionnaire at the same interview (about 10-15 minutes), which will be repeated by telephone on two later days.

The interview can take place in your home or another place of your choice. With your consent, the interview will be tape-recorded so that the researcher will not miss any information. Tape recorded interviews will be erased at the end of the study. You have the right to refuse to answer any questions, and you can end the conversation at any time.

In appreciation for your time and participation, you will be given your choice of a \$30.00 food voucher or \$30.00 cash upon completion of the third dietary questionnaire. As a participant, you will receive a personal dietary analysis from your questionnaires, as well as a report of the results of this research when it is completed.

Your participation in this study, as well as the content of the interview and dietary questionnaires, will be kept strictly confidential and anonymous. It will not be shared with anyone beyond the researcher and her advisory committee. You will not be identified by name in any part of stored information or in the thesis or any publications that result from this study.

This project has been reviewed and approved by the University Research Ethics Board. If you decide to participate, you may withdraw from the study at any time.

If you would like to participate in this project, please contact Ellen Desjardins at [desj2665@wlu.ca](mailto:desj2665@wlu.ca) to set up an appointment.

*Thank you for your interest!*

WILFRID LAURIER UNIVERSITY (WLU) -- INFORMED CONSENT STATEMENT

Project: *Food and place: how and why people navigate their food environment*

Researcher: Ellen Desjardins, PhD candidate, WLU

Advisor: Dr. Bob Sharpe, WLU, [bsharpe@wlu.ca](mailto:bsharpe@wlu.ca)

You are invited to participate in a research study, which is for my doctoral degree in the Department of Geography and Environmental Studies at Wilfrid Laurier University.

The purpose of this study is to understand why people choose the places where they normally shop for food or eat away from home. This interest stems from the fact that the places where foods are sold in our region continue to change, yet we are not sure how this matters to people in their everyday lives, and what difference it makes in terms of what they normally eat. This is not a marketing study for industry, but it will be of interest to urban planners and citizens in order to develop a city that serves people in the best possible way. This study will focus on about 40 adult residents of the area bounded by Westmount, Weber, Erb and Union Streets.

Participating in this study means taking part in a personal interview with the researcher, for about 1 hour. During this hour we will talk about the places (e.g. grocery stores, restaurants) that you usually visit during a 2-week period. In addition, there will be a short diet questionnaire at the same interview (about 10-15 minutes), which will be repeated by telephone on two later days within the following week, when it is convenient for you.

The interview can take place in your home or another place of your choice. With your consent, the interview will be tape-recorded so that the researcher will not miss any information. Tape recorded interviews will be transcribed by the researcher, and audio recordings will be erased at the end of the study. You have the right to refuse to answer any questions, and you can end the conversation at any time.

The actual interviews and dietary questionnaires will not be shared with anyone except the researcher and her advisor. It will be kept in locked files at the university, and will be disposed of after the study is completed according to university policy. You will be identified by a numerical code, not by name or any other personal identifier, in any part of stored information, the thesis or any publications that result from this study. Only the researcher will know which code has been assigned to you. As well, you will be asked for consent and verification if the researcher wishes to quote something which you have said in the interview, and you are free to refuse.

In appreciation for your time and participation, you will be given your choice of a \$30.00 food voucher from Bailey's Local Foods or \$30.00 cash upon completion of the third dietary questionnaire. As a participant, you may receive a personal dietary analysis from your questionnaires if you wish.

A report with the findings of this study will be shared with you, and also with interested groups, researchers or planning institutions who request it. The study may also be presented at conferences and in journal articles.

If you have questions at any time about the study or the procedures, you may contact the researcher, Ellen Desjardins, at [desj2665@wlu.ca](mailto:desj2665@wlu.ca). This project has been reviewed and approved by the University Research Ethics Board. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 2468 or [bmarr@wlu.ca](mailto:bmarr@wlu.ca).

If you decide to participate, you may withdraw from the study at any time. If you withdraw from the study before data collection is completed your data will be destroyed.

**CONSENT**

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_

## SEMI-STRUCTURED INTERVIEW: FOOD and PLACE

### 1. CHECKLIST and SUMMARY SHEET: YOUR PERSONAL FOOD ENVIRONMENT - 20 minutes

Please mark on the map (a) your home; (b) the place(s) where you normally work or study, and (c) the set of places you regularly or routinely choose to visit to buy food.

Checklist for map and interview (take notes on other sheet)	Locations	Freq (times per month)	Car/walk/ drive
Grocery stores			
Specialty food stores			
Farmers market/ farm stores			
Food co-op, buying club or CSA pick-up			
Corner/convenience stores			
Dining out – sit down			
Coffee shops			
Ready-to-eat food – tuck shop, pick-up, drive-through			
Cafeteria, vending machine			
Direct food delivery			

### 2. Exploring for RELATIONALITY for specific personal food activity spaces -

I am interested in learning about various aspects that matter concerning the places that you have mentioned so far where you regularly go to buy food (either food to be eaten later at home or to eat away from home). For each **PLACE**, please think back to the times when you were there, and tell me why you chose to go there and what this place means to you. In what ways does the food matter for each of these places?

*[For each regularly-visited location, probe with questions re spatial, social and personal meanings.]*

### 3. GENERAL QUESTIONS REGARDING YOUR PERSONAL FOOD ENVIRONMENT: - 10 minutes

(a) *Personal characterization of food environment (open-ended):*

Given the overall spatial picture of the places where you regularly buy food -- which we call your "personal food environment" -- what comes to mind in terms of the most important aspects of your food environment? What matters most to you with respect to the places you visit, and the food you eat or choose there?

If BLF member: has BLF *changed* the food you buy, in quantity or quality or source?

(b) In what ways does your food environment differ in the winter/spring in comparison to the summer or fall?

(c) Do you feel you can get the food that you need or want among the places that are available in Waterloo Region?

(d) Do you ever feel that the places where food is available drive you or otherwise influence you to buy food that might not have planned to buy?

(e) How would you imagine an “optimal” food environment for you, if you could redesign your neighbourhood or the city?

#### 4. SUPPLEMENTARY QUESTIONS - 5 minutes

(a) How many meals do you eat at home on an average week?

How many meals do you (or someone else) prepare at home to eat away from home (e.g. bag lunch)?

(b) In general, do you enjoy preparing food at home?

(c) How much of the family food shopping (if person is not living alone) is done by you?

(d) Do you grow any of your own fruit, vegetables or herbs?

(e) Do you preserve food that you buy unprocessed (can, dry, freeze, pickle, etc.)?

#### 5. 24-HOUR RECALL - 10 minutes

#### 6. DEMOGRAPHIC QUESTIONS – 5 minutes

Year born \_\_\_\_\_

Where born \_\_\_\_\_

Household

composition \_\_\_\_\_

Household income range  <\$50,000  \$50,000 - \$100,000  >\$100,000

Occupation \_\_\_\_\_

Education level  high school  college or university grad

Length of time living in Waterloo Region \_\_\_\_\_

Length of time living at current residence \_\_\_\_\_

Weight \_\_\_\_\_ (lbs or kg) Height \_\_\_\_\_ (meters or feet & inches)

24-hour recall # 1 2 3 weekend Age \_\_\_\_\_ F M Number \_\_\_\_\_ Date \_\_\_\_\_

Meal	Food	Amount	HEI analysis	points
Breakfast			Max pts total fruit and veg (10) whole fruit (5) dk green/orange veg & legumes(5)	
Mid-morning			total grains (5) whole grains (5)	
Lunch			milk & alt (10) meat & alt (10) _____ Unsat fat (10) (grams)	
Mid-afternoon			Saturated fat (10) (% of kcal)	
Dinner			Sodium (mg) (10) Other foods (20) (% of kcal) <b>Total KCAL</b>	
Evening			<b>HEI</b>	

**MALE age 19-30**
**Healthy Eating Index Calculation Chart**

F&V		whole fruit		dgo veg		grains		wh. grains		milk & alt		meat & alt		Unsat fats		Sat fats		sodium		other foods			
1 serv = 1 pt		1 serv =2.5 pts		1 serv =2.5 pts		1 serv = 0.63 pts		1 serv = 1.25 pts		1 serv = 5 pts		1 serv =3.33 pts		1g = .22 pts		≥15% = 0 pts 10% = 8 pts ≤7% = 10 pts		< 1,500 = 10 pts 2,300 = 8 pts > 4,600 = 0 pts		≤5% = 20 pts ≥40% = 0 pts			
max 10 = 10 pts		max 2 =5 pts		max 2 =5 pts		max 8 = 5 pts		max 4 = 5 pts		max 2 = 10 pts		max 3 = 10 pts		45 g = 10 pts									
servings		servings		servings		servings		servings		servings		servings		grams		% total kcal		mg		% total kcal			
serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	g	pts	%cal	pts	mg	pts	%cal	pts
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15%	0	4,600	0	40%	0	
1	1	1	2.5	1	2.5	1	0.6	1	1.3	1	5	1	3.3	5	1.1	14%	1.6	4,314	1	35%	2.9		
2	2	2	5	2	5	2	1.3	2	2.5	2	10	2	6.7	10	2.2	13%	3.2	4,028	2	30%	5.7		
3	3					3	1.9	3	3.8			3	10	15	3.3	12%	4.8	3,742	3	25%	8.6		
4	4					4	2.5	4	5					20	4.4	11%	6.4	3,456	4	20%	11.4		
5	5					5	3.1							25	5.5	10%	8	3,170	5	15%	14.3		
6	6					6	3.8							30	6.6	9%	8.7	2,884	6	10%	17.2		
7	7					7	4.4							35	7.7	8%	9.3	2,598	7	5%	20		
8	8					8	5							40	8.8	7%	10	2,300	8				
9	9													45	10			1,900	9				
10	10																	1,500	10				

**FEMALE age 19-30**

F&V		whole fruit		dgo veg		grains		wh. grains		milk & alt		meat & alt		Unsat fats		Sat fats		sodium		other foods			
1 serv =1.24ts		1 serv =2.5 pts		1 serv =2.5 pts		1 serv = 0.71 pts		1 serv = 1.43 pts		1 serv = 5 pts		1 serv = 5 pts		1g = .33 pts		≥15% = 0 pts 10% = 8 pts ≤7% = 10 pts		< 1,500 = 10 pts 2,300 = 8 pts > 4,600 = 0 pts		≤5% = 20 pts ≥40% = 0 pts			
max 8 = 10 pts		max 2 =5 pts		max 2 =5 pts		max 7 = 5 pts		max 3.5 = 5 pts		max 2 = 10 pts		max 2 = 10 pts		30g = 10 pts									
servings		servings		servings		servings		servings		servings		servings		grams		% total kcal		mg		% total kcal			
serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	g	pts	%cal	pts	mg	pts	%cal	pts
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15%	0	4,600	0	40%	0	
1	1.3	1	2.5	1	2.5	1	0.7	0.5	0.7	1	5	1	5	5	1.7	14%	1.6	4,314	1	35%	2.9		
2	2.5	2	5	2	5	2	1.4	1	1.4	2	10	2	10	10	3.3	13%	3.2	4,028	2	30%	5.7		
3	3.8					3	2.1	1.5	2.1					15	5.0	12%	4.8	3,742	3	25%	8.6		
4	5.0					4	2.8	2	2.8					20	6.7	11%	6.4	3,456	4	20%	11.4		
5	6.3					5	3.5	2.5	3.5					25	8.3	10%	8	3,170	5	15%	14.3		
6	7.5					6	4.2	3	4.2					30	10	9%	8.7	2,884	6	10%	17.2		
7	8.8					7	5	3.5	5							8%	9.3	2,598	7	5%	20		
8	10															7%	10	2,300	8				



**MALE age 31 - 50**

**Healthy Eating Index Calculation Chart**

<b>F&amp;V</b>		<b>whole fruit</b>		<b>dgo veg</b>		<b>grains</b>		<b>wh. grains</b>		<b>milk &amp; alt</b>		<b>meat &amp; alt</b>		<b>Unsat fats</b>		<b>Sat fats</b>		<b>sodium</b>		<b>other foods</b>	
1 serv =1.25 pts		1 serv =2.5 pts		1 serv =2.5 pts		1 serv = 0.63 pts		1 serv = 1.25 pts		1 serv = 5 pts		1 serv =3.33 pts		1g = .22 pts		≥15% = 0 pts 10% = 8 pts ≤7% = 10 pts		< 1,500 = 10 pts 2,300 = 8 pts > 4,600 = 0 pts		≤5% = 20 pts ≥40% = 0 pts	
max 8 = 10 pts		max 2 =5 pts		max 2 =5 pts		max 8 = 5 pts		max 4 = 5 pts		max 2 = 10 pts		max 3 = 10 pts		45 g = 10 pts							
servings		servings		servings		servings		servings		servings		servings		grams		% total kcal		mg		% total kcal	
serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	g	pts	%cal	pts	mg	pts	%cal	pts
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15%	0	4,600	0	40%	0
1	1.3	1	2.5	1	2.5	1	0.6	1	1.3	1	5	1	3.3	5	1.1	14%	1.6	4,314	1	35%	2.9
2	2.5	2	5	2	5	2	1.3	2	2.5	2	10	2	6.7	10	2.2	13%	3.2	4,028	2	30%	5.7
3	3.8					3	1.9	3	3.8			3	10	15	3.3	12%	4.8	3,742	3	25%	8.6
4	5.0					4	2.5	4	5					20	4.4	11%	6.4	3,456	4	20%	11.4
5	6.3					5	3.1							25	5.5	10%	8	3,170	5	15%	14.3
6	7.5					6	3.8							30	6.6	9%	8.7	2,884	6	10%	17.2
7	8.8					7	4.4							35	7.7	8%	9.3	2,598	7	5%	20
8	10					8	5							40	8.8	7%	10	2,300	8		
														45	10			1,900	9		
																		1,500	10		

**FEMALE age 31 - 50**

<b>F&amp;V</b>		<b>whole fruit</b>		<b>dgo veg</b>		<b>grains</b>		<b>wh. grains</b>		<b>milk &amp; alt</b>		<b>meat &amp; alt</b>		<b>Unsat fats</b>		<b>Sat fats</b>		<b>sodium</b>		<b>other foods</b>	
1 serv =1.43 pts		1 serv =2.5 pts		1 serv =2.5 pts		1 serv = 0.83 pts		1 serv = 1.67 pts		1 serv = 5 pts		1 serv = 5 pts		1g = .33 pts		≥15% = 0 pts 10% = 8 pts ≤7% = 10 pts		< 1,500 = 10 pts 2,300 = 8 pts > 4,600 = 0 pts		≤5% = 20 pts ≥40% = 0 pts	
max 7 = 10 pts		max 2 =5 pts		max 2 =5 pts		max 6 = 5 pts		max 3 = 5 pts		max 2 = 10 pts		max 2 = 10 pts		30 g = 10 pts							
servings		servings		servings		servings		servings		servings		servings		grams		% total kcal		mg		% total kcal	
serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	g	pts	%cal	pts	mg	pts	%cal	pts
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15%	0	4,600	0	40%	0
1	1.4	1	2.5	1	2.5	1	0.8	1	1.7	1	5	1	5	5	1.7	14%	1.6	4,314	1	35%	2.9
2	2.9	2	5	2	5	2	1.7	2	3.4	2	10	2	10	10	3.3	13%	3.2	4,028	2	30%	5.7
3	4.3					3	2.5	3	5					15	5.0	12%	4.8	3,742	3	25%	8.6
4	5.7					4	3.4							20	6.7	11%	6.4	3,456	4	20%	11.4
5	7.2					5	4.2							25	8.3	10%	8	3,170	5	15%	14.3
6	8.6					6	5							30	10	9%	8.7	2,884	6	10%	17.2
7	10															8%	9.3	2,598	7	5%	20
																7%	10	2,300	8		

**MALE age 51+**

**Healthy Eating Index Calculation Chart**

<b>F&amp;V</b>		<b>whole fruit</b>		<b>dgo veg</b>		<b>grains</b>		<b>wh. grains</b>		<b>milk &amp; alt</b>		<b>meat &amp; alt</b>		<b>Unsat fats</b>		<b>Sat fats</b>		<b>sodium</b>		<b>other foods</b>	
1 serv =1.43 pts		1 serv =2.5 pts		1 serv =2.5 pts		1 serv = 0.71 pts		1 serv = 1.43 pts		1 serv =3.33 pts		1 serv =3.33 pts		1g = .222 pts		≥15% = 0 pts 10% = 8 pts ≤7% = 10 pts		< 1,300 = 10 pts 2,300 = 8 pts > 4,600 = 0 pts		≤5% = 20 pts ≥40% = 0 pts	
max 7 = 10 pts		max 2 =5 pts		max 2 =5 pts		max 7 = 5 pts		max 3.5 = 5 pts		max 3 = 10 pts		max 3 = 10 pts		45 g = 10 pts							
servings		servings		servings		servings		servings		servings		servings		grams		% total kcal		mg		% total kcal	
serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	g	pts	%cal	pts	mg	pts	%cal	pts
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15%	0	4,600	0	40%	0
1	1.4	1	2.5	1	2.5	1	0.7	0.5	0.7	1	3.3	1	3.3	5	1.1	14%	1.6	4,314	1	35%	2.9
2	2.9	2	5	2	5	2	1.4	1	1.4	2	6.7	2	6.7	10	2.2	13%	3.2	4,028	2	30%	5.7
3	4.3					3	2.1	1.5	2.1	3	10	3	10	15	3.3	12%	4.8	3,742	3	25%	8.6
4	5.7					4	2.8	2	2.8					20	4.4	11%	6.4	3,456	4	20%	11.4
5	7.2					5	3.5	2.5	3.5					25	5.5	10%	8	3,170	5	15%	14.3
6	8.6					6	4.2	3	4.2					30	6.6	9%	8.7	2,884	6	10%	17.2
7	10					7	5	3.5	5					35	7.7	8%	9.3	2,598	7	5%	20
														40	8.8	7%	10	2,300	8		
														45	10			1,800	9		
																		1,300	10		

**FEMALE age 51+**

<b>F&amp;V</b>		<b>whole fruit</b>		<b>dgo veg</b>		<b>grains</b>		<b>wh. grains</b>		<b>milk &amp; alt</b>		<b>meat &amp; alt</b>		<b>Unsat fats</b>		<b>Sat fats</b>		<b>sodium</b>		<b>other foods</b>	
1 serv =1.43 pts		1 serv =2.5 pts		1 serv =2.5 pts		1 serv = 0.83 pts		1 serv = 1.67 pts		1 serv =3.33 pts		1 serv = 5 pts		1g = .33 pts		≥15% = 0 pts 10% = 8 pts ≤7% = 10 pts		< 1,300 = 10 pts 2,300 = 8 pts > 4,600 = 0 pts		≤5% = 20 pts ≥40% = 0 pts	
max 7 = 10 pts		max 2 =5 pts		max 2 =5 pts		max 6 = 5 pts		max 3 = 5 pts		max 3 = 10 pts		max 2 = 10 pts		30 g = 10 pts							
servings		servings		servings		servings		servings		servings		servings		grams		% total kcal		mg		% total kcal	
serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	serv	pts	g	pts	%cal	pts	mg	pts	%cal	pts
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15%	0	4,600	0	40%	0
1	1.4	1	2.5	1	2.5	1	0.8	1	1.7	1	3.3	1	5	5	1.7	14%	1.6	4,314	1	35%	2.9
2	2.9	2	5	2	5	2	1.7	2	3.4	2	6.7	2	10	10	3.3	13%	3.2	4,028	2	30%	5.7
3	4.3					3	2.5	3	5	3	10			15	5.0	12%	4.8	3,742	3	25%	8.6
4	5.7					4	3.4							20	6.7	11%	6.4	3,456	4	20%	11.4
5	7.2					5	4.2							25	8.3	10%	8	3,170	5	15%	14.3
6	8.6					6	5							30	10	9%	8.7	2,884	6	10%	17.2
7	10															8%	9.3	2,598	7	5%	20
																7%	10	2,300	8		

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