Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

by

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Author's Declaration

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Chapter 6
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Abstract

Background: Health and environmental data reveal significant challenges faced by populations around the word in relationship to food. Complex choices and constraints shape people's dietary patterns. While there is often debate about which eating patterns people should follow, for vegans ethical motivations are paramount. Vegan diets can be healthy diets, but there remains a gap in the literature surrounding veganism and overall wellbeing, including food security and connection to nature.

Objectives: Taking into consideration both human and more-than-human factors this research explored how vegans live their lives embedded within the complex circumstances that shape their wellbeing. This exploration was informed by the application of a holistic model of health (the Revised Mandala of Health) and the use of an ecofeminist lens. Through a series of three studies and one methodological reflection, this research addressed the following objectives: (1) To investigate how ethical veganism influences a person's experience and conceptualization of food security; (2) To explore the success and challenges faced by ethical vegans, how they may resist these challenges, and the implications for wellbeing; and (3) To explore ethical vegans' experiences with the more-than-human world, and the implications for their wellbeing and coping strategies.

Methods: The first study (Chapter 2) used focus groups to learn about vegans' experiences and ideas related to food security at the individual, household and community levels. Four focus groups were held, of which three were comprised of vegans who in the year prior had experienced food security, with the final focus group being reserved for vegans who had experienced food insecurity. The focus groups' data were analysed using Tracy's phronetic iterative analysis approach. The second study (Chapter 3) used semi-structured interviews to

collect data on veganism and wellbeing from 26 participants. The data from these semi-structured interviews were analysed using reflexive thematic analysis (RTA). The third study (Chapter 4) had six participants who took part in both a 2-day, group, body-map storytelling (BMST) workshop and then a follow-up individual, semi-structured interview. Data collected over the course of the body-map storytelling workshop included each participant's presentation of their body-map to the group, as well as a written 'testimonio', two end of day reflective exercises, and one focus group. All data from this third study were analysed together using RTA. Finally, a fourth component was generated for this dissertation (Chapter 5). This methodological reflection was written based on the lead researcher's impressions of the BMST workshop and comments about this workshop that were shared by the participants during data collection for the third study.

Results: The results of Study 1 indicated that responsibility was a prominent feeling experienced by the participants both in relationship to their veganism and their experiences of food (in)security. The participants believed they should be informed about the food system, know how to shop frugally, and have cooking skills. Feelings of personal responsibility for food security may have been amplified by the perception of the absence of a vegan-friendly social safety net. The participants noted vegan foods could be nutritious, convenient, and inexpensive but not generally all these things at once. Therefore, compromising on at least one feature of their food was often needed. Participants in both the food secure and food insecure groups explained how at times they experienced difficulty accessing vegan-friendly foods.

The results of Study 2 demonstrated that veganism is regarded as a positive way of living that though challenging at times, especially early on in one's experience and in relation to social relationships, was of overall net benefit to the vegan participants. This benefit contributed to

enhanced wellbeing. The areas of wellbeing the participants identified most often as being influenced by veganism were the mental and emotional realms. The participants' identities influenced their experiences of veganism. In navigating life as vegans the participants eschewed the belief in a 'perfect' veganism, which may have contributed to the longevity of their veganism.

The results of Study 3 showed the participants were ecologically embedded. Being ecologically embedded meant that when the participants perceived harm to the more-than-human world they subsequently felt a negative effect on their own wellbeing, including as solastalgia. However, being ecologically embedded also meant that participants experienced enhanced wellbeing through their connection to the more-than-human world.

In the methodological reflection, the researchers argue that while BMST requires significant participant involvement it can be a rewarding approach for both participants and researchers, and a safe method of data collection if careful attention is paid to the social location of potential participants and the sensitivity of the research topic. The researchers found different data collection approaches were more and less effective during the BMST workshop and they offer practical considerations for the design and undertaking of future BMST workshops.

Conclusions: Through the completion of three studies and one methodological reflection this research found that veganism was a positive force that enhanced wellbeing in the lives of the participants. As veganism is outside of the norm in Western cultures, being vegan did lead to challenges for the participants, but the challenges were not with veganism itself, rather the challenges lay in the social ramifications and accessibility of foods suitable for vegans. Participants felt the benefits of veganism outweighed the challenges. Considering the results via

their alignment with the Revised Mandala of Health suggests that veganism can have health promoting properties for vegans and the more-than-human world. As plant-based diets are increasingly considered a way to address issues of health and sustainability, this study adds important understandings about the personal value and maintenance of veganism.

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List of Abbreviations

BIPOC	**Black, Indigenous, People of Colour**
BMST	**Body-map storytelling**
CCHS	**Canadian Community Health Survey**
FAO	**Food and Agriculture Organization of the United Nations**
FG	**Focus Group**
HFSSM	**Household Food Security Survey Module**
MTHW	**More-than-human world**
RTA	**Reflexive thematic analysis**
SAD	**Standard American Diet**
USD	**United States dollar**
Veg*n	**Vegetarian and/or vegan**
WHO	**World Health Organization**

Statement of Positionality

At the time of writing, in 2024, I have been a vegan for half of my life. Recently, in the fourth year of my doctoral degree, I dramatically altered my dietary patterns to treat a medical condition I live with. While remaining vegan, this significant change necessitated a lot of research, time in the kitchen, and made everyday activities like visiting friends for a meal, suddenly challenging. My new diet is restrictive and necessitates tracking all foods consumed and reaching specific macronutrient ratios. In many ways I was relearning how to be vegan in dietary terms. Prior to this change I had a high degree of comfort and ease with my vegan food practices. As a vegan, I had lived in Bolivia for a year, spent several months living in a northern First Nations community, I had worked in remote work camps and at physically demanding jobs, I had travelled to the arctic several times, all with little difficulty. Thus, at the time of data collection, although I considered myself an insider to the research, I had less connection to the challenges that newer vegan participants sometimes identified during data collection.

I made my dietary change during the iterative cycle of writing and analysis, and I believe that this change has helped me to approach the data with a new lens of openness to understanding challenges faced by some of the participants. While I remain vegan, I feel my dietary change has also simultaneously distanced me from the community as I can no longer participate in meals at restaurants or partake at other food related events. In some ways I feel this has also made me an outsider to this community. Overall, this has led to a greater sensitivity to participant experiences and for that I think my experience has enriched this work.

Earlier, during the second year of my doctoral degree, I was hired to work in a public library. At the time of writing, I am still working there and after so many years as a vegan, this library

experience is what solidified for me the ontological difference between vegan and non-vegan philosophies. Numerous children's picture books tell stories that are at odds with a vegan ethic, from trips to the zoo and the aquarium, to the animals on Old McDonald's farm, to the foods that are eaten. This reintroduction to children's literature has also primed me to notice the non-vegan normativity within society in a way that I had not critically examined before. This has enhanced my research as well, again through bringing together a combination of experience and openness to my work.

Finally, in my life, I have worked with Indigenous communities and organizations, and I have learned much from these experiences. My worldview has been influenced by people and knowledges from many different Indigenous cultures but at the core of what I have learned are the primacy of respect and reciprocity. I take that forward with me in my life and my work. It is with this lens that I have approached the research. Furthermore, my experience learning about Indigenous health and wellbeing broadened my idea of what are valid sources of evidence, such as experiences with the more-than-human world, and the universe. Had I not had these learning opportunities I may have been more closed off to some of the stories the participants shared during data collection.

In summary, I bring to this research a rich and varied set of experiences and knowledge that readers should be aware of as they engage with this work.

Chapter 1: Introduction

1.1 Study Rationale

Public health recommendations suggest that people should consume more plant-based foods for physical health, as well as planetary health (Willett et al., 2019). One form of plant-based eating is ethical veganism. Ethical vegans may face unique challenges regarding their wellbeing and food security due to their philosophical orientation and intersecting identities. While there have been many studies undertaken related to vegan nutrition and physical health, the studies on vegan wellbeing are fewer (i.e. Bertella, 2020; Costa et al., 2019; Hanras et al., 2022) with only one, which included both vegetarians and vegans, being undertaken in a Canadian context (Torti, 2017). Research on veganism and connection to nature is limited (i.e. Krizanova & Guardiola, 2021), and there are no studies on veganism and food security. This research sought to address these gaps through exploration of the wellbeing of vegans in Waterloo Region in southern Ontario, Canada.

1.2 Study Context

This research was conducted shortly after the acute phases of the SARS-CoV-2 pandemic when there was increasing food insecurity in global (FAO, IFAD, UNICEF, WFP, & WGO, 2023), national (Canada) and provincial (Ontario) contexts (Li et al., 2023; Statistics Canada, 2024). However, it is not only the local context that has been impacted. In a globalized world food related policies must consider human and environmental health beyond borders (Andrews et al., 2023). In the Western world this means we must critically examine our own practices. The foods we choose to consume impact our health and wellbeing, including that of humans and more-than-humans around the world.

1.3 Study Location

This research took place in Waterloo Region in the province of Ontario, Canada. These lands are the traditional territories of the Anishinaabe, Haudenosaunee, and Neutral Peoples. Research participants were drawn from the Region, either living or working within its boundaries. The Region of Waterloo has a population of 673 910 people (Region of Waterloo, 2022). There are three cities within Waterloo Region of significant population size, Waterloo, Kitchener, and Cambridge. Scattered throughout these cities, there are restaurants and shops that cater to a vegan clientele. Specialty vegan products are also available at many grocery stores across the Region.

Amongst the population of the Region of Waterloo, 27% of people identified as a Person of Colour in the 2021 Canadian Census (Statistics Canada, 2023). The average age of the population in Waterloo Region was 39.4 and the average household size was 2.6 people (Statistics Canada, 2023). The median total income amongst Region of Waterloo residents was $42 400 for the year 2020 (Statistics Canada, 2023).

According to the Region of Waterloo Public Health and Paramedic Services (2023) the cost of healthy eating using the foods included in the National Nutritious Food Basket increased by 5.2% from 2022 to 2023. The total monthly food costs for a family of 4 was $1124.79, whereas it was $672.45 for a couple, and $403.52 for an individual (Region of Waterloo Public Health and Paramedic Services, 2023). Within the Region of Waterloo, 15.1% of household were food insecure in 2022 (Public Health Ontario, 2024).

The National Nutritious Food Basket is not specifically tailored to a vegan diet (Region of Waterloo's Public Health and Paramedic Services, 2023). However, approximately half of the

foods in the National Nutritious Food Basket are fruit and vegetables and 11 of the 22 “protein foods” listed are vegan friendly protein sources (Government of Canada, 2020, February 24). The 8 “whole grain foods” and 3 “unsaturated fats” listed in the National Nutritious Food Basket are available in vegan friendly options (Government of Canada, 2020, February 24). Therefore, the majority of the foods included within the National Nutritious Food Basket are suitable for vegans, however it is unknown how only purchasing the foods suitable for vegans may impact the total cost of the basket.

1.4 Research Objectives

The objectives of this research were to:

1. Investigate how ethical veganism influences a person’s experience and conceptualization of food security.
2. Explore the successes and challenges faced by ethical vegans, how they may resist these challenges, and the implications for wellbeing.
3. Explore ethical vegans’ experiences with the more-than-human world, and the implications for wellbeing as well as ethical vegans’ coping strategies.

1.5 Research Questions

This thesis asked the question: How is the wellbeing and food security of ethical vegans influenced by the human and more-than-human world and how do vegans navigate these complexities?

The sub-research questions are as follows:

Sub-Research Question 1: How do ethical vegans conceptualize vegan experiences of food (in)security in a predominantly non-vegan society?

- How are the present and future of food security conceptualized from a vegan lens?
- What is a vegan experience of food (in)security like?

Sub-Research Question 2: What are the barriers faced by ethical vegans and how do they resist and cope with these constraints?

- What barriers do ethical vegans face related to gender?
- How do the barriers, and reactions to them, uniquely influence a person's veganism?
- What are the implications of the barriers and coping mechanisms for health and wellbeing?

Sub-Research Question 3: How does the practice of veganism enrich the lives of ethical vegans?

- What are the implications for health and wellbeing?

Sub-Research Question 4: How do ethical vegans with a connection to the more-than-human world experience that world?

- What connections do ethical vegans make among these experiences of the world, their veganism and their wellbeing?

1.6 Dissertation Organization

This dissertation was written using an integrated thesis format. As such it is composed of a series of papers, presented within Chapters 2-5, that were written with the intention to be published in academic journals. These papers are the result of three studies that were undertaken on the broad topic of veganism and wellbeing. Studies 1 and 2 resulted in one research paper each, while Study 3 resulted in both a research paper and a methodological reflection paper. The introduction chapter, Chapter 1, and conclusion chapter, Chapter 6, provide the framing that ties these discrete papers together.

Within this chapter, Chapter 1, the rational, and context, of the study are presented. This is followed by the research objectives and questions. Having established the basis of the study a brief summary of the papers (Chapters 2-5) is given. This outline is followed by a literature review and overview of the theoretical framing of the study to establish the academic context within which the three studies were nested. A variety of methods were used to collect data across the three studies and an overview of these methods is provided. The development of the methods and tools used for data collection in Studies 1 and 2 are described here in Chapter 1, whereas the development of body-map storytelling (BMST), the method used in Study 3, is described within Chapter 5.

1.7 Summary of Manuscripts

Chapter 2 contains the paper based on the results of Study 1, the study on veganism and food security. This research used focus groups as the method of data collection and included focus groups for participants experiencing either food security or food insecurity. The results indicated that the vegan participants felt a societal level of responsibility to shift from animal centric diets and a level of personal responsibility for their own food security. Responsibilities were related to

learning about the food system, learning how to prepare vegan foods, and learning how to reduce expenditures on food. The participants did not think their veganism would be provided for in times of need and even participants in the food secure focus groups had transient times of difficulty accessing food. The participants noted vegan foods could be nourishing, convenient, and inexpensive but generally were not all these things at once. Therefore, compromising on at least one feature of vegan food was often needed.

Chapter 3 is the paper written on the results of Study 2, the study on veganism and wellbeing explored from the participants' different social locations. In general, most participants experienced the greatest level of challenge early on in their veganism. Some of these challenges diminished with time and as participants adopted strategies to navigate social relationships with non-vegans. The participants identified increased mental and emotional wellbeing that they attributed to veganism. Participants explained how their own social location shaped their experiences with veganism and recognized that it is not possible to live 'perfectly' vegan, a framing which may have contributed to their ability to maintain their veganism.

Chapter 4 is the paper based on the results of Study 3, the BMST research which explored veganism and connection to nature. The participants in this research were ecologically embedded which had positive and negative consequences for their wellbeing. Solastalgia was included amongst the negative consequences. Amongst the positive consequences, participants felt that veganism enhanced their connection to the more-than-human world. Appendix K contains the study summaries from Studies 1, 2, and 3.

Chapter 5 is comprised of a methodological reflection paper that is based on the researcher's experience with leading a two-day BMST workshop and follow-up semi-structured interviews

for Study 3. Through this experience and comments from the participants the researcher gleaned information that may be of value to others considering using BMST in future research. This information includes practical considerations related to the planning and execution of workshops and considerations around the ethics of body-map storytelling recruitment and participation. Participants were found to enjoy the body-map storytelling process but not all data collection methods used during the body-map storytelling were equally effective at eliciting rich data for analysis.

The final chapter, Chapter 6, contains a synthesis and conclusions of the results of this research considering all three studies together using a holistic model of health, the Revised Mandala of Health (Langmaid et al., 2021), as a framework. Contributions to the literature on veganism and to the field of public health are explained. Recommendations for future research are provided.

1.8 Literature Review

This literature review begins with the broad and holistic concept of wellbeing. Among the factors that can influence one's perception of wellbeing is food (in)security. As the composition of a diet that supports food security can vary culturally, the concept of a plant-based diet, and the sub-cultural philosophy of veganism will be then introduced. This will provide the reader with a sense of how a vegan diet may differ from a mainstream Western diet. Following this the current knowledge related to veganism and wellbeing and veganism and food security will be presented. The literature review will conclude with a brief overview of connection to nature which can be connected to wellbeing and eating patterns.

1.8.1 Wellbeing

Wellbeing is a holistic concept that is difficult to precisely define. Furthermore, the concept of wellbeing is variable across different cultures, including across individualist and collectivist cultures (Joshanloo et al. 2021). Joshanloo et al. (2021) have noted that the majority of wellbeing research is being undertaken by Westerners, as is the case with this dissertation, therefore Western, individualistic biases may be present within research.

In 2012, The World Health Organization's (WHO) proposed the following definition: "Well-being exists in two dimensions, subjective and objective. It comprises an individual's experience of their life as well as a comparison of life circumstances with social norms and values" (p. 9). This proposed definition has not been formally adopted by the WHO but is of value for this study.

Within this study subjective wellbeing will be considered. Objective measures are often used to quantify wellbeing but they are insufficient (McNaught, 2011). Furthermore, in considering wellbeing one must not be limited to the individual level but rather include the "whole structure of humanity and its social and ecological existence" (McNaught, 2011, p. 10). In conceptualizing wellbeing in this way, a connection to public health is maintained (La Placa & Knight, 2014, p. 39). The four levels of society, community, family and individual are necessary within McNaught's (2011) structured framework of well-being. It is increasingly recognized that human health cannot be viewed as separate from the health of the more-than-human world (MTHW). The MTHW is defined by Abram (1996) as: "the multiple nonhuman entities that constitute the local landscape, from the diverse plants and the myriad animals […] to the particular winds and weather patterns that inform the local geography, as well as the various landforms […] that lend

their specific character to the surrounding earth" (p. 6-7). Abram explains how this conceptualization was informed by his work with Indigenous Peoples around the world (1996). Thus, the holistic health models of the Mandala of Health (Hancock, 1985) and the Revised Mandala of Health (Langmaid et al., 2021) can be seen to be models of wellbeing due to their inclusion of the aforementioned components. The revised Mandala of Health was used as a model to guide this study and more information about this model is included in the section on theory.

1.8.2 Food Security

This research draws upon two definitions of food security. The first definition is the Food and Agriculture Organization of the United Nations' (FAO), World Food Summit, (1996) definition of food security in which "[f]ood security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (para 13). Using the FAO's definition was considered important because it is widely used historically and to this day. The concept of food security includes four pillars of food security, as conceptualized by the FAO (2008): availability, access, utilization and stability. Recently, agency and sustainability have been proposed as additional pillars (Clapp et al., 2022).

Food security is also important to consider because less than half the world's population can afford to eat a healthy diet, and those who are food insecure are more often women. (FAO et al., 2023). Eating healthy foods is more expensive (FAO & WHO, 2019) within current neoliberal market systems.

Both neoliberal and reformist politics lead to "corporate food regimes" (Holt-Giménez & Shattuck, 2011, p. 117) which can continue to threaten food security. The FAO is considered politically reformist, and food security is the discourse of reformist food politics (Holt-Giménez & Shattuck, 2011). In opposition to corporate food regimes are the progressive and radical food movements (Holt-Giménez & Shattuck, 2011). The radical food movement advocates for self-determination in the form of food sovereignty (Holt-Giménez & Shattuck, 2011). Food sovereign communities determine the foods that are appropriate for their communities, rather than corporations. Food sovereignty requires the transformation of the current global neoliberal system. Theoretically, if food sovereignty is achieved, people will be food secure (Kim & Pokharel, 2020) and communities will be sustainable (Declaration of Nyéléni, 2007; National Farmers Union, 2018). Thus, discussion of food sovereignty is included here because while food security is the focus of the research, it was conceptualized that to be truly food secure also requires food sovereignty.

Plant-based diets can be a form of resistance to the homogenization that occurs via globally increased adoption of the Standard American Diet (SAD). Thus, transitioning towards, or maintaining, more plant-based diets can be a component of self-determination. However, often plant-based diets are considered radical by mainstream cultural standards.

Within the mainstream global culture, as a person's economic situation improves, they tend to consume more meat-based animal products (FAO et al., 2023; Godfray et al., 2010). Demand for meat is projected to continue to increase (Bodirsky, 2015). However, the consumption of diets high in animal foods is less environmentally sustainable than the consumption of plant-based diets (Poore & Nemecek, 2019), which ultimately threatens food security.

Food security and sustainability are interrelated (Berry et al., 2015). This interrelationship is also suggested by the proposal to add sustainability as a pillar of food security. One cannot be food secure indefinitely if their food supply is incompatible with the systems within which it exists. These systems include social, ecological and economic systems (Mischen et al., 2019). For some people, including Indigenous Peoples of the Amazon, global expansion of animal agriculture threatens all aspects of their food security, through deforestation and the introduction of disease (Chiu & Lin, 2009). Access to food could be increased if there was a reduction in animal agriculture because "[i]ncreases in food prices are often driven by demand for agricultural feed" (Beverland, 2014, p. 377). Furthermore, while the mass production of foodstuffs can give the illusion of stability in some places, sometimes, it is highly extractive (Berry, et al., 2015 & Foster, 1999). Thus, the global trend in dietary patterns, including of increasing animal agriculture, threatens both mainstream and traditional food systems.

The second definition of food security this research draws upon is community food security, as defined by Hamm and Bellows (2003) in which "all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (p. 37). Although the FAO updated the definition of food security in 2001 to include a social dimension of food security (FAO, 2003), the community food security definition was chosen as a complement to original 1996 definition because it goes further with the social dimension to consider justice and sustainability. In contrast to the FAO definition of food security, the integration with socio-ecological systems is prominent in the definition of community food security (Lowitt, 2014), this brings community food security into alignment with the Ottawa Charter for Health Promotion (Ontario Public Health Association, 2002).

1.8.3 Food Insecurity

In contrast to food security, food insecurity is defined by the Government of Canada as "the inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so" (Government of Canada, 2020a, para. 1). Statistics Canada measures food security using the 18-item Household Food Security Survey Module (HFSSM) as a function of income and administers the survey as a component of the Canadian Community Health Survey (Government of Canada, 2020b; Tarasuk & Mitchell, 2020). A person/household is considered food insecure, if they answer any question of the HFSSM affirmatively (Government of Canada, 2020a). Particular groups are known to be at risk of food insecurity including low-income individuals and families (Tarasuk & Mitchell, 2020).

1.8.4 Plant-based Diets

It is known that aspects of current global agricultural systems are detrimental to public health (De Schutter, 2014). Therefore, plant-based diets have important linkages to global public health. Plant-based diets are diets that exclude animal products, although the extent of exclusion is variable. Plant-based diets require much less land for production than is required for diets that include animal products (Aleksandrowics et al., 2016; Godfray et al., 2010; Harper, 2007; Poore & Nemecek, 2018; Westhoek et al., 2014). Furthermore, plant-based diets use fewer fossil fuels (Lappé, 1971/1991) result in fewer greenhouse gas emissions (Aleksandrowics et al., 2016; Poore & Nemecek, 2018; Westhoek et al., 2014; Röös et al., 2020), and require fewer nitrogen inputs (Westhoek et al., 2014). Transitioning towards plant-based diets has been shown to have positive implications for global sustainability (Aldaya et al., 2021; Aleksandrowics et al., 2016;

Chiu & Lin, 2009; IPES-Food & ETC Group, 2021; Poore & Nemecek, 2018), yet mainstream authorities often fail to engage with this assertion (Acari, 2017). However, it is also important to acknowledge that people may follow a plant-based diet for other reasons including, but not limited to, culture, religion, philosophy, ethics, taste preferences, and health (Hanganu-Bresch & Kondrlik, 2020). Different motivations for following a plant-based diet may also have different implications for health and wellbeing outcomes.

Plant-based diets may have benefits to food security (Hemler & Hu, 2019). However, to be food secure people must also have access to the foods they want to consume. (Jalava et al., 2016). Currently, the total exclusion of animal products as food is not something most people desire, although consumers may indicate an intention to consume fewer animal products. Governments have a role to play in shifting food wants towards plant-based foods (Poore & Nemecek, 2018).

1.8.5 Veganism

To have broader appeal to consumers, at times products are advertised as plant-based though they are made with entirely vegan friendly ingredients. Unlike veganism, plant-based diets are not considered political or radical (Giraud, 2021). In larger society veganism is often envisioned as apolitical despite vegans' political intents (Buttny & Kinefuchi, 2020). While criticized for being a simplistic approach to complex structural issues, some authors have argued that veganism is a practice that cultivates exploration of "complexity" (Giraud, 2021, p. 64).

Veganism is in part (in dietary terms), about reimagining the food system or in its simplest form what counts as food within the food system. However, the limits of veganism do not end with food. Just as food systems extend to issues of social, environmental, and ecological justice, so

too does veganism (Giraud, 2021). As veganism is a philosophy, veganism shapes worldview beyond what is normative (Giraud, 2021).

Veganism is one form of a plant-based diet but is distinguishable from current trends towards “plant-based capitalism” (Giraud, 2021, p. 15). In addition to not consuming any animal products as food, the practice of veganism extends into other dimensions of life as well such as avoiding use of speciesist language, animal-based entertainment, and other products such as clothing or toiletries. Those motivated by ethical reasons, who also eschew animal products and the use or exploitation of animals in other areas of life (i.e. clothing, entertainment) are vegans according to The Vegan Society (2022) definition of veganism.

The Vegan Society’s definition of veganism states that: "veganism is a philosophy and a way of living which seeks to exclude -as far as is possible and practicable- all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, promotes the development and use of animal-free alternatives for the benefit of animals, humans and the environment" (The Vegan Society, 2022, Key Facts, para 2). The wellbeing of animals, humans, and the environment are incorporated into a vegan philosophy.

Research indicates vegans are most likely to be middle-class (Hohoff et al., 2022). The research on veganism and physical health indicates that well planned vegan diets are healthy diets (Craig et al., 2009). However, it is recognized that veganism can be challenging for many reasons, and there has been some exploration of this within the academic literature (Cole & Morgan, 2011; Edwards, 2013; Hirschler, 2011; Markowski & Roxborough, 2019). Bertella (2020) recommends governments have a role to play in helping to facilitate the transition to veganism for people who desire it, including through education in primary school. This may yield benefits to vegans in

two ways, through increased knowledge of food preparation and nutrition and through a normalization of veganism within society, thereby potentially reducing the social stigma and disconnection vegans experience.

Retention is a current challenge within veganism that needs to be addressed. The majority of people who at one time adopted vegan diets now identify as former vegans (Asher et al., 2014). Research from the United States has indicated that for every 1 current veg*n[1] there are 5 former veg*ns (Asher et al., 2014). Importantly, whether these former vegans were ethically, lifestyle, health, or otherwise motivated, is unknown.

Another factor that may influence adoption and retention of veganism is whiteness. Mainstream veganism has been criticized for whiteness (Greenebaum, 2018; Harper, 2010; Polish, 2016). Whiteness is harmful and needs to be actively addressed within veganism (Harper, 2010). As argued by Harper, (2010; 2013) whiteness blinds white vegans to the human suffering and exploitation that may be part of the production of foods that are considered vegan friendly.

Veganism is sometimes framed as a practise that is inaccessible and privileged (Greenebaum, 2017). However, participants who were Persons of Colour in Greenebaum's (2018) research took a radically different approach to vegan privilege, wherein they proposed it was fabricated by the manufacturers of cheap, unhealthy junk foods as a way to keep people, especially racialized people, consuming these food products (Greenebaum, 2018). One must be mindful that food systems are complex and what is observed on an individual level may appear differently when examined from a structural level. For example, accessibility issues may be related more to food insecurity than to an inherent inaccessibility within veganism. In this case the dominant food

[1] Vegetarian and/or vegan

system that makes healthy food inaccessible is deserving of critique rather than veganism in its dietary manifestation. This is similar to an argument made by Calvo and Rueda Esquibel (2015) that people may be blamed for their food choices, while broader society goes on "without seriously engaging with the social policies that are corrupting our food supply and, in turn, our health" (p. 27).

Regarding vegan research, recent social science-oriented reviews have explored the potential role of veganism as an individualistic "lifestyle" movement (Gheihman, 2021), and the relationship of gender to veganism and vegetarianism (veg*nism) or perception of veg*nism (Modlinska et al., 2020) as well as other topics related to veg*nism and psychology (Rosenfeld, 2018). When elements of wellbeing have been explored in veg*n populations the results of social wellbeing (Torti, 2017) and psychological wellbeing have been mixed (Bagci & Olgun, 2019; Torti, 2017). Furthermore, veg*n wellbeing has been explored broadly as in Bagci & Olgun (2019) and Torti (2017) rather than focusing on vegans specifically.

This research will focus on ethical vegans as opposed to'vegans' motivated by reasons other than ethics. Ethical vegans may differ in their experiences and interpretations of the world due to their motivations for veganism. White (2018) argues that ethical veganism is praxis, and Oliver (2021) explains that it is "a social and political movement" (p. 11). Ethical vegans are an understudied population that may face unique challenges regarding their wellbeing and food security by virtue of their philosophical orientation and intersecting identities. Research has indicated that ethical vegetarians have stronger convictions than vegetarians motivated by other reasons (Hoffman et al., 2013). Ethical veganism may be more enduring given the ethical associations than other forms of veganism, and breaking ones' ethical veganism may be considered more egregious.

1.8.6 Veganism in Canada

To determine the percentage of vegans in the Canadian population researchers looked at foods people indicated they never eat, when surveyed for the CCHS. According to data from the CCHS 0.3% of the population are dietary vegans. (Valdes et al., 2020). Who is a vegan is more complex than this as it involves self-identification. Other data suggests that approximately 2% of the Canadian population identifies as vegan (Charlebois, 2018). When considering all plant-based dietary patterns together this number increases, but is only approximately 5% of the Canadian population (Valdes et al., 2020). For the purpose of their study Valdes et al. (2020) included pescatarianism and semi-vegetarianism as being plant-based diets, in addition to vegetarianism and veganism.

1.8.7 Veganism and Wellbeing

The wellbeing and food security of vegans has yet to be fully explored. The research on veg*n diets and mental health has shown both positive and negative relationships between veganism and mental health (Beezhold et al., 2015; Dobersek et al., 2021; Forestell & Nezlek, 2018; Iguacel et al., 2020). However, a 2012 study found “no evidence for a causal role of vegetarian diet in the etiology of mental disorders” (Michalak et al., 2012, p.9). It has been suggested that people who are mentally unwell may adopt vegetarianism as a mechanism to attempt to counter their experiences with mental distress (Lindeman, 2002; Michalak et al. 2012). Iguacel et al. (2020) note that many studies which have explored veg*nism and mental health have included people who consume fish or other meat, and/or have not properly accounted for confounding factors.

Of relevance, veganism is a "refusal of governing social and cultural norms" (Oliver, 2021, p. 839), that while desirable to vegans may also result in negative consequences to wellbeing. As mentioned earlier, there are challenges one may face as a veg*n that can influence wellbeing. These include social challenges which may have impacts on emotional and mental wellbeing (Hirschler, 2011; Torti, 2017; Twine, 2014). This may result in situations of imbalance where vegans may feel connection to the more-than-human-world but less connection to other non-vegan humans. Such a scenario could result in negative wellbeing outcomes for vegans, that are juxtaposed against positive wellbeing outcomes. Cherry (2006) found that having vegan community that provided support was a strong determinant of vegans maintaining their veganism. Little literature is available on spirituality or religion and veg*nism which Rosenfeld (2018) identifies as an area of future research.

A study which examined both newspaper headlines and popular vegan blogs found the use of ableist language, directed towards vegans by non-vegans and vice versa, was common (Wrenn, 2015). This may have implications for the wellbeing of vegans, not limited to concerns about whether they are a welcome member of the larger vegan community. Another study found that accessible material on the subject of veg*nism, for people with intellectual disabilities, was nonexistent (Bates, 2020). This represents one way in which a group of people may be excluded from larger vegan practice. There are other factors which could potentially lead to feelings of inadequacy or exclusion from the ethical vegan community which ought to be explored owing to Cherry's (2006) findings and the potential implications for the maintenance of veganism and due to the role of social connections/relationships within the Revised Mandala of Health.

As mentioned, some research has explored the intersection of veganism and gender. While data are not yet available for Canada, in the USA women account for 80% of all vegans (Lockwood,

2021). Adams, (1990/2020) linked meat and masculinity, while associating vegetarianism and feminism in her seminal text, *The Sexual Politics of Meat*. A greater understanding of gender and veganism may help to explain why so few men are vegan when compared to women.

1.8.8 Veganism and Food Security

Some argue that food security and veganism are interrelated at a community or societal level because changes in resource use could lead to the redistribution of resources to those who are food insecure (White et al., 2022), however at this time this redistribution is limited to the theoretical.

There are instances where people may be unable to provide vegan food for themselves. For example, it is possible that people, such as minors, may live in unsupportive familial environments which limit their ability to be able eat a vegan diet. Furthermore, vegans may make up a higher proportion of some food insecure groups, such as students. This is because vegans are more likely to be under the age of 35 (Charlebois as cited in Thomson, 2018). In popular thought, vegans are presumed to be financially secure and therefore may be assumed to be food secure. This makes invisible the experiences of low-income vegans. If low-income vegans rely on emergency food assistance, their options for vegan food may be limited. However, there are two vegan food banks currently in existence in Ontario; the London Ontario Vegan Food Bank (Carbone, 2018) and the Toronto Vegetarian Food Bank (CBC, 2016; Toronto Vegetarian Food Bank, 2014).

Vegan wellbeing exists within the context of a neoliberal society, which is another important aspect to framing the research. Veganism, as corporate veganism (White, 2018), has made significant inroads in the markets of Western nations. For example, in the United States in 2019,

plant-based analogs of food traditionally made from animals were valued at $4.5 billion USD (Plant Based Foods Association, 2019). These products could typically be considered expensive (Sexton et al., 2022). These products may give the false impression that their consumption is a normalized feature of a vegan diet. However, it is unknown how ethical vegans may relate to and conceptualize these food products. While these products may facilitate the convenience of a vegan diet, they may not further the political goals of ethical vegans, for example when corporations who are invested in animal agriculture, also produce plant-based options (Sexton et al., 2022). These products are developed as a result of corporate interests in a neoliberal context. Interestingly, Kopnina writes that anthropocentrism is "a close ally of neoliberalism" (2016, p. 140). Vegans are necessarily against anthropocentrism, while as a group their relationship to neoliberalism is unknown but is worth consideration because of the complex interconnections to the wellbeing of humans and the MTHW.

1.8.9 Nature Connection

Most people are alienated from the land and:

> [t]his break results in the majority of people not being cognizant of land as an ecological whole: soil, water, and air. As a result, we see a disconnect of understanding land as being the constitutive foundation of human existence. This disconnect simultaneously creates a space of food alienation, which interacts with both dispossession and food insecurity (Gatson et al, 2022, p.1255-1256).

However, Fox (2000) argues that vegetarianism connects people to nature. Ecological embeddedness, specifically, and veganism have not yet been studied in relation to one another. However, past research has looked at the concept of nature relatedness and vegetarianism and

found that vegetarians achieved higher nature relatedness scores than non-vegetarians (Nisbet et al., 2009).

A study by Oliver (2021) identified that vegans may learn about the circumstances of animal agriculture through media or other sources while not having known individual animals that have been used for food. This may have relevance to the exploration of ecological embeddedness as it may warrant consideration of how people may be spiritually or emotionally embedded. This again links back to conceptualizations of wellbeing and balance between the mental, emotional, spiritual and physical aspects of life.

To conclude this literature review, it can be seen how ethical veganism has further relevance to public health in that it links to the wholistic concept of health as described in the Ottawa Charter for Health Promotion (WHO, 1986). It is also related to the identified prerequisites for health including, food, a stable ecosystem, sustainable resources, and social justice and equity, meaning this subject matter under study is closely linked to concerns of health promotion.

1.9 Theoretical Framing

Epistemologically this research is constructivist. This aligns with the view that culture influences experiences, worldview and "truth" (Patton, 2002). The macro theory that has informed this research is ecofeminism, a critical theory. Exploring alternate future states and manifestations of power are hallmarks of critical research (Tracy, 2020). Tracy (2020) explains that there is misalignment between constructionism and critical theory because of the value that social constructionism imbues in the views of the participants without considering what is occurring in broader societal contexts. However, constructivism presupposes that although knowledge is constructed within the mind it is influenced by society and culture among other factors (Swandt,

2000). Within this research the participants often describe larger societal contexts within their own reflections, enabling the melding of a constructivist approach with elements of a critical one. Meso level theories used in this dissertation include a social-ecological model of health (outlined in Chapter 3), and the revised Mandala of Health (Langmaid et al., 2021). Micro level theories used in this dissertation include food security, community food security, and food insecurity, as discussed earlier.

1.9.1 Ecofeminism

Ecofeminism is a form of feminist theory that emerged from social justice and environmental movements (Gaard, 1993). Feminist researchers maintain reflexivity while attending to power, relationships and boundaries of inclusion in their work (Ackerly & True, 2020; Tracy, 2020). Ecofeminists are attentive to the power differential between humanity and nature (Kaijser & Kronsell, 2013). Ecofeminists believe that the human oppression of nature is the base on which other oppressions have been constructed (Gaard, 1993). It should be noted that ecofeminism had become unpopular by the 2000s (Gaard, 2011). This is owing to claims of essentialism within ecofeminism, however it is argued that this framing was established because it draws attention aways from the anthropocentrism in other feminisms (Twine, 2022).

Ecofeminism differs from posthumanism in that while they both aim to decentre humans from analysis, post-humanism is apolitical while ecofeminism is critical (Gaard, 2017). For example, ecofeminism has the "goal of transforming economic, political, and institutional structures, basing these more on natural ecological processes" (Gaard, 2010, p. 656). Ecofeminism values both the actual change that people can bring about but also the journey of change and how

actions to change were taken (Birkeland, 1993; Gaard, 2010). Transformation of power structures is seen as being necessary within ecofeminism (Birkeland, 1993).

Ecofeminists believe that patriarchy is force that negatively shapes how women and the environment are treated (Giraud, 2021). A belief in human superiority over nature is believed to facilitate other forms of hierarchical thinking that lead to oppression (Giraud, 2021). Ecofeminism frames different forms of oppression as "enmeshed" (Giraud, 2021 citing Wright, 2018). This differs from the concept of intersectionality where oppressions are seen as uniquely building upon one's experiences within the world, without being additive. Crenshaw (1991) explains how Black women's experiences are distinct from the experience of both white women and Black men. Twine (2022) explains that ecofeminists see likeness across oppressions while intersectional feminists see difference across oppressions.

1.9.2 Vegan Ecofeminism

Vegan ecofeminism originally emerged as a subset of ecofeminism, although Gaard (2010) has identified that ecofeminists were often already vegetarian or vegan. In alignment with Gaard's (2017) description of critical ecofeminism, where ecofeminism is referenced in subsequent chapters of this dissertation, veganism is implied. The work of Adams (1990/2020), mentioned earlier, was a springboard for the development of vegan ecofeminism, wherein the Western world eating animal products, or using animals for human benefit, is seen as linked to systems of oppression. When her work was first published, Adams (1990/2020) had referred to the interconnections between feminism and vegetarianism. While vegan ecofeminism began by making connections between oppressions, vegan ecofeminism developed beyond this into "an

analysis of the structure of oppression itself" (Gaard, 2002, p. 118). Adams originally referred to vegetarianism but later clarified by vegetarianism she meant veganism (1990/2020).

Vegan ecofeminism has been criticized by prominent ecofeminists such as Val Plumwood (Plumwood, 2000; Twine, 2022). Plumwood's (2000) argument against veganism suggests she does not see vegans as ecologically embedded. Twine (2022) refutes Plumwood's assertion that vegans are not ecologically embedded. According to Twine (2022), Plumwood was concerned with the potential for "'vegan imperialism' being imposed on [I]ndigenous communities" (p. 223). Plumwood (2000) herself has written that vegan ecofeminism is ethnocentric and she did have concerns around criticism of, or infringement upon, Indigenous Peoples food systems from vegan ecofeminists. However, Plumwood (2000) concedes there are issues with western animal production in 'factory farms'. Plumwood (2000) describes veganism as "a politics of personal virtue and self-denial, with its unhealthy elements of self-righteousness and holier-than-thouism" (p. 291). Within the chapters that follow it will be demonstrated that Plumwood's assessment is not true to the nature or experiences of the participants in this research.

A model that values Indigenous Knowledges was therefore seen as important for use in this research in part to avoid reproducing the harms that Plumwood (2000) claims stem from vegan ecofeminism. The Revised Mandala of Health (Langmaid et al., 2021) specifically values Indigenous Knowledge systems, and was selected as this model.

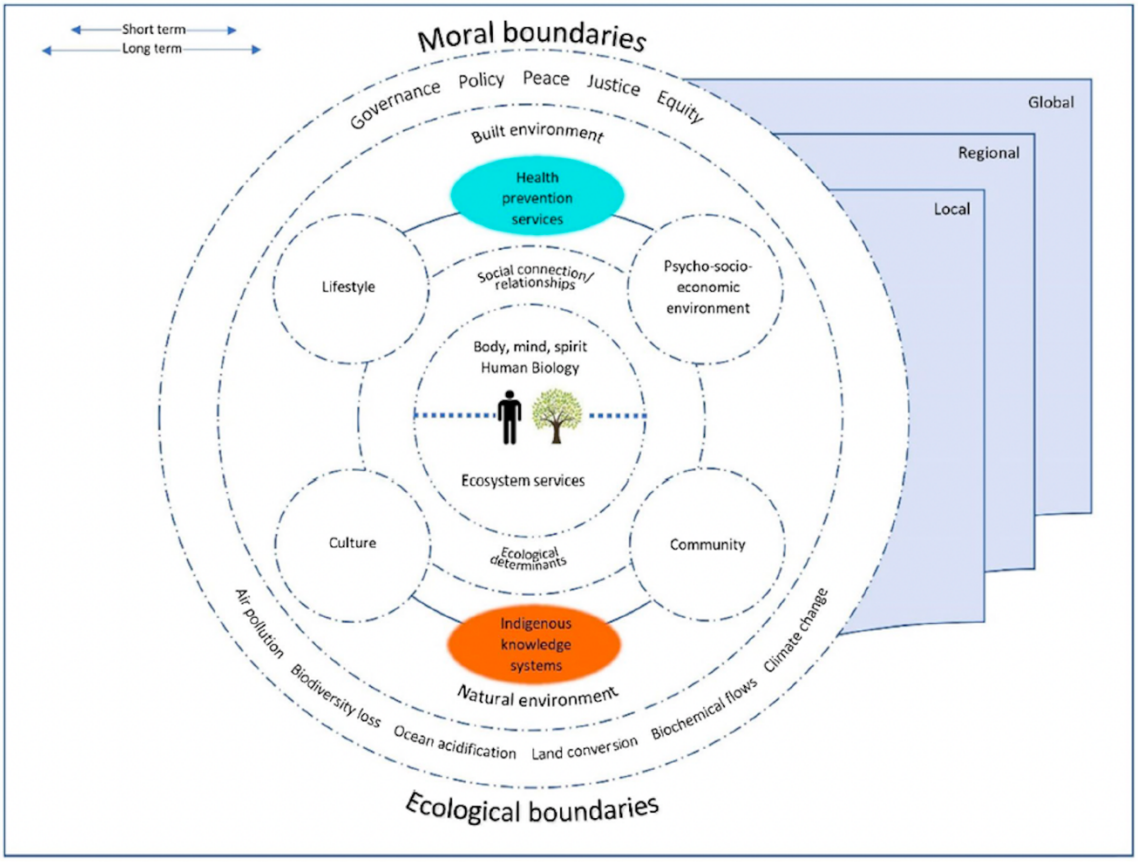
1.9.3 The Revised Mandala of Health

The Revised Mandala of Health (Langmaid et al., 2021) centres wellbeing and is used within this study to illustrate interrelationships between concepts within the proposed research. The Revised Mandala of Health incorporates both social and ecological determinants of health (Langmaid et

al., 2021). The Revised Mandala of Health was selected due to its holism and connection to the Earth, ecosystems and the more-than-human world. These are areas that remain underexplored within the vegan literature, but that align well with veganism. The Revised Mandala of Health models how health promotion can approach health challenges (Langmaid et al., 2021).

Figure 1

The Revised Mandala of Health of Langmaid et al. (2021, p. 15).



The Revised Mandala of Health of Langmaid et al. (2021) was based on the Figure owned by the City of Toronto and published in Hancock, (1985) as cited by Hancock (1985) as "Public Health in the 1980s. Department of Public Health, Toronto, Ontario, Canada, 1978".

1.10 Methods

1.10.1 Research Design

This research project was made up of three studies (See Figure 2 below).

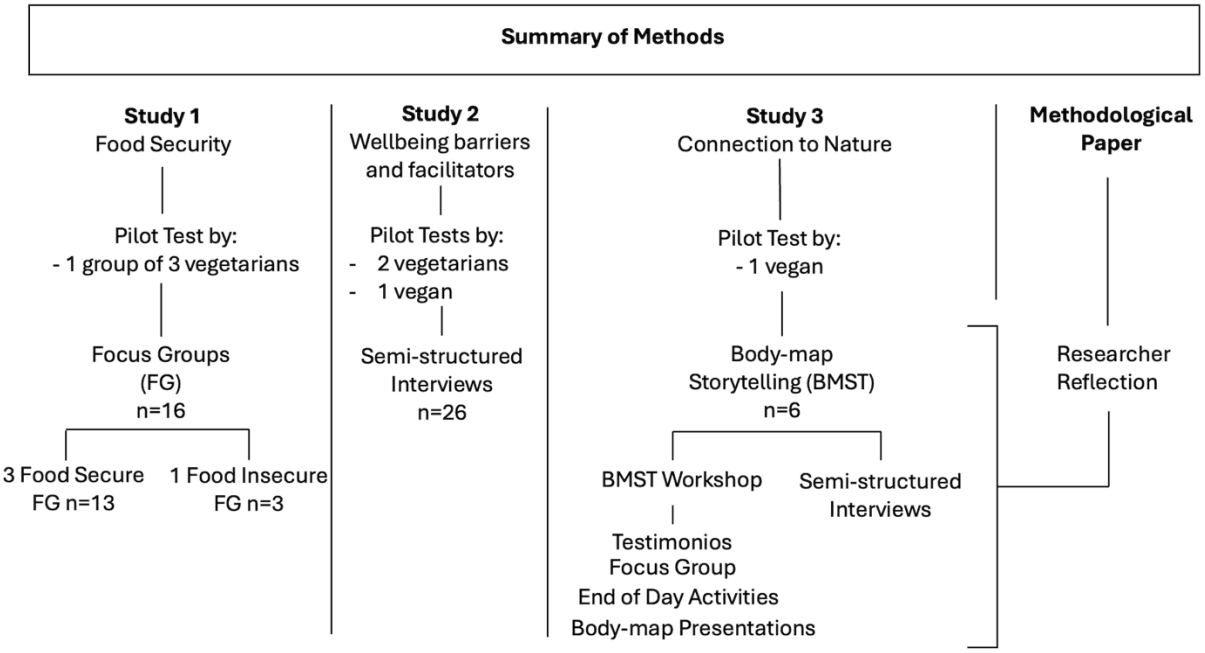
Study 1: This dissertation contains one research paper (Chapter 2) based on the results of Study 1.

Study 2: This dissertation includes one research paper (Chapter 3) based on the results of Study 2.

Study 3: Finally, one research paper (Chapter 4), and one methodological reflection paper (Chapter 5) were written based on Study 3.

Figure 2

Overview of Study Methods



The methods for Studies 1 and 2 are outlined within this chapter. While this chapter provides some information related to the methods used for Study 3, the remaining details for Study 3 are expanded upon in the methodological reflection (Chapter 5) mentioned above.

1.10.2 Application of Theory to Methodology

This work is humanist in its orientation towards human participants however ethical vegans were chosen as the population for study because of their concern with the MTHW. This was an approach to study people who centre nature, which was seen as important because of the relational understanding of humans and animals in ecofeminism (Moore, 2015) and the importance of the MTHW within ecofeminism. The doctoral researcher is a vegan motivated by ethical reasons which has been addressed in the positionality statement. Such a foregrounding of values is necessary for feminist research (Ackerly & True, 2020).

Feminist elements were incorporated in the research design in several ways. In Study 3 BMST can be viewed as a feminist method of data collection, owing in part to its embodied nature. Focus groups, which were used in Studies 1 and 3, are also seen as being highly compatible with feminist research (McHugh, 2020; Wilkinson, 1998). Focus groups are a valuable method in feminist research given their ability to shift power to the participants and away from the researcher (McHugh, 2020) and to retain a level of contextualization that may not be present in other methods (Wilkinson, 1999). As in the focus groups, the BMST took place in a group setting, and throughout that data collection process the participants similarly had more power than they may have had in an interview, for example.

In Study 2, Semi-structured interview questions were focused on issues of gender and veganism. The researcher was attentive to reflexivity throughout the length of the project, and interviews were considered more conversational and less structured (Ackerly & True, 2020). While the researcher avoided sharing their own opinions during interviews, the researcher inevitably had an influence on the outcomes of the interviews in some ways, so interview content is viewed more

as something that was cogenerated by the interviewee with the researcher (McHugh, 2020; Wigginton & Lafrane, 2019).

Ecofeminism has influenced the application of the methods in that attention was paid by the researcher throughout the research process to power differentials between the researcher and the participants (Ackerly & True, 2020). This meant that the researcher, tried to develop interviews that were more conversational in nature and tried to follow the direction of the interview that the participants crafted. However, the feminists Hesse-Biber and Piatelli (2007) explain we must consider our own power, how we "present" in the field and "also consider the power others have in defining who [we are]" (p. 495). The researcher presents the following reflexive statement: By virtue of my education, I was likely granted a level of power, that I think is also linked to post-positivism and ideas of legitimacy. However, as a PhD student, when I told non-vegans I was studying veganism I could often sense a shift in their interest in the project and some people would stop talking to me at this time or begin to raise debates about veganism with me.

Vegans are often ridiculed in popular media, and it is not uncommon for veganism to be the butt of a joke. Furthermore, vegans are often women, and veganism can be devalued as such because we live in a patriarchal society. I think the participant's framing of me as a person at a well-respected University, studying public health sciences at the doctoral level, was validating for them. Many participants thanked me at the end of data collection and thanked me for undertaking this work that they felt was badly needed, to bring more legitimacy to veganism in the eyes of larger society. Therefore, although I tried to approach the semi-structured interviews in a more feminist way, the participants often treated the interviews with more formality and expected I would remain neutral. So, while this represents a power imbalance, it may have been something that the participants thought was validating for veganism.

At times, my identity also seemed to be a barrier to gathering data. For example, I am white, and during one interview a participant of Colour apologized to me after mentioning stereotypes of white vegans. It appeared this participant may have had more thoughts about these stereotypes, but they did not engage in further discussion of them with me. As discussed in Chapter 3 participants also appeared to foreground their identities as vegans and downplay other identities, perhaps in an effort to retain a focus on veganism and/or to make veganism appear accessible to all. This may have obscured some of the challenges participants have faced in their lives as vegans, including as related to race, for example.

1.10.3 Participant Recruitment

Recruitment for all three studies used convenience sampling, with some snowball sampling as well. Snowball sampling is a procedure wherein participants recommend other people for participation in the research (Denscombe, 2007). Two different recruitment posters were developed, one for Studies 1 and 2 (See Appendix A) and one for Study 3 (See Appendix B). Posters were physically placed in locations around the cities of Waterloo and Kitchener, Ontario. Posters were also placed online in two local Facebook groups for vegans. There was a staggered recruitment with recruitment for Studies 1 and 2 beginning first, before starting recruitment for Study 3 several months later. To begin the data collection, the first interview was held in January 2023, and to end the data collection the final focus group took place in September 2023.

All participants had to identify as ethical vegans according to The Vegan Society (2022) definition, have been vegan for at least one year, and be aged 18 years or older. Other studies have divided vegans based on their level of experience as a vegan for under 1 year, or more than

1 year (Giacoman & Joustra, 2024). All participants completed a demographics form prior to their study participation; the demographics form was the same across studies (Appendix C).

On the demographics form, participants were asked to self-select their income level, as low, medium, or high, rather than select a numerical value from a range of household incomes. This approach of self-definition has been taken by other researchers as well (For example, Giacoman et al., 2023; Kakoschke et al, 2022). While some participants were unsure how to classify themselves, and tended to lean towards a middle level income when deciding between low- and middle-income, this approach was selected as it was believed to be more accurately represent each participant's unique circumstances. For example, a single participant without dependents may be more comfortable living on a household income that is lower than another participant's income, if the other participant is also supporting children. Therefore, while the second participant may have been classified as having a higher household income, they may have more difficulty covering their expenses. Participants were encouraged to reflect on their personal circumstances when answering this demographic question rather than relying on numerical approximation alone.

After initial feedback from the researcher's committee, the number of questions for the individual semi-structured interviews and focus groups were significantly reduced. This was beneficial to reduce the burden on the participants. The semi-structured interviews were commonly 1 hour in duration, although two reached the maximum allotted time of 2 hours, as outlined in the ethics application for this research project.

Potential participants were informed they were able to take part in any one or all of the different Studies, as long as they met the eligibility criteria for each one.

1.10.4 Focus Groups

Focus groups were used for Studies 1 and 3. Focus groups may be as small in size as 3 people. However, an upper limit of 8 people is common (Silverman, 2020), although some suggest a maximum of 12 (Onwuegbuzie et al., 2009). The more complex the topic and more advanced the knowledge of the participants is on the topic, the more suitable smaller focus groups are (Krueger, 1994). Three focus groups are needed to be able to draw conclusions from the groups (Krueger & Casey, 2015). Participants may be asked questions, or assigned tasks during focus groups, and they may be provided with reference material to facilitate discussion (Onwuegbuzie et al., 2009). Greater homogeneity amongst focus group participants can contribute to building comfort in the group amongst focus group participants (Onwuegbuzie et al., 2009), but this can also lead to less diversity in answers as people maintain a social image (Carey & Smith, 1994; Smithson, 2000; Vicsek, 2010). However, participant responses are shaped by a multitude of factors including the wider societal context in which the group takes place (Kidd & Parshall, 2000; Wilkinson, 1999). At the same time focus group members may push one another to answer questions in a way that in interviewer may not (Wilkinson, 1998). Focus groups are well suited to exploring perspectives that have been under researched (Carey, 1995; Wilkinson, 1999) such as veganism and food security.

1.10.5 Semi-structured Interviews

Semi-structured interviews were used for Studies 2 and 3. Semi-structured interviews are well suited to the collection of complex and personal data (Denscombe, 2007). Semi-structured interviews begin with a predetermined set of open-ended questions, but the questions asked of the interviewee may evolve as the interview progresses (Braun & Clarke, 2013; Denscombe,

2007). Semi-structured interviews are the most common type of qualitative interview (Braun & Clarke, 2013). Well designed and executed interviews will often generate rich data for analysis (Braun & Clarke, 2013).

1.10.6 Arts-based Methods

Arts-based methods are common in public health research (Black et al., 2018; Leavy, 2017; Lys et al., 2018) and are based on the work of Paulo Freire (1970/2018) in their emancipatory goals. Researchers claim that arts-based approaches shift-power dynamics in the participants' favour (Lys et al., 2018, Wang & Burris, 1997). Typically, arts-based research is qualitative in nature (Fraser & al Sayah, 2011). Arts-based methods are compatible with a constructivist epistemology and unlike positivist research the methods are not used to seek "truth" (Boydell et al., 2016, p. 689; Moffitt & Robinson Vollman., 2004). Arts-based methods began to appear in Canadian research in the late 1990's (Cox et al., 2010).

Art-based methods generate a finished artistic component that may or may not be used as data (Leavy, 2017). The resulting artwork is sometimes used for knowledge dissemination (Boydell et al., 2016; Cox et al., 2010). This is well suited to health promotion research, due to the history of the use of images for health promotion campaigns (Cox et al, 2010; Fraser & al Sayah, 2011). Arts-based methods can also help bring attention to health inequities (Parkinson & White, 2013). Often other data collection methods, such as semi-structured interviews are paired with the arts-based method (Boydell et al., 2016). If the artistic component is not used as data, then it may be used for elicitation of responses from participants in an interview, sharing circle or focus group. The use of an arts-based method can contribute to increased richness within the data (Boydell et

al., 2016). Both content analysis and thematic analysis are commonly used in the analysis of arts-based research (Boydell et al., 2016).

An important consideration for arts-based researchers is "connection" with the audience, including the broader public and policy makers (Leavy, 2017). Arts-based research is meant to be impactful and it may evoke emotion within both participants and viewers of the artwork (Black et al., 2018, Gastaldo et al. 2012; Lys et al., 2018). The most frequently used arts-based methods are Photovoice and photo elicitation (Fraser & al Sayah, 2011). Other methods include, theatre, poetry, digital storytelling and body-map storytelling (BMST).

BMST is a methodology wherein participants map their embodied experiences (Boydell et al., 2020; Bruckner, 2018; de Jager et al., 2016; D'souza et al., 2020; Gastaldo et al., 2012). There is some debate as to whether a particular methodology must be strictly adhered to, to maintain the integrity of the process (Orchard, 2017), or if researchers may modify the methodology to suit their circumstances and participants, as is common (Collings et al., 2021; Macken et al., 2021; McCorquodale & DeLuca, 2020). Orchard (2017) argues that one must always acknowledge the origins of body-mapping and commit their body-mapping project to the essential "therapeutic principles and practices" (p. 88). Such a commitment will result in multi-day long body-mapping workshops. This timeframe can be difficult for participants to commit to and for researchers to fund. However, Orchard (2017) explains without these prerequisites in place people risk "cultural appropriation" (p. 88) of the methodology.

The body-maps themselves can show the past, present and future of the participants' lives (Collings et al., 2021). Participants can find BMST to be emotional (de Jager et al., 2016; Dew et al., 2018), empowering (Boydell et al., 2020; de Jager et al., 2016), and enjoyable (de Jager et

al., 2016). Furthermore, arts-based methods are known to be potentially cathartic (Cunsolo Willox et al., 2012; Fiddian-Green et al., 2019; Flicker & Hill, 2014; Gubrium, 2009).

Ideally, producing the body-maps, while potentially challenging, may also be enjoyable (Lys et al., 2018). In this way the process becomes less threatening to people who otherwise may not have been familiar with research. BMST can provide people an opportunity to have their voice heard (Bruckner, 2018; Collings et al., 2021; de Jager et al., 2016; Dew et al., 2018).

While the short-term outcomes of BMST are promising, Lys et al. (2018) indicate that research on the potential long-term outcomes of BMST is yet to be undertaken. Replication studies of arts-based research methods are also lacking (Boydell et al., 2016). Other developments of interest have led to the fusion of community mapping and BMST as a way to resist the colonial separation of the human body from the Earth (Sweet & Ortiz Escalante, 2015), and three-dimensional body-mapping with clay (Ong et al., 2020).

Importantly, for these methods to be successful researchers must have gained participant trust and participants must trust in one another (Castleden et al., 2008; Cunsolo Willox et al., 2012; Fontaine et al., 2019). Arts-based methodologies have often used with marginalized communities, and it is argued that this could reinforce stereotypes and hierarchies of knowledge according to Western thought (Wilson & Flicker, 2014). However, researchers who have used these methods attest that that they have decolonizing potential (Cunsolo Willox et al., 2012; Fontaine et al., 2019; Gastaldo et al., 2018; Sweet & Ortiz Escalante, 2017). Appreciation of the arts is widespread globally (Fraser & al Sayah, 2016), but it is important to attend to what may be culturally appropriate in the community one works with and consider modifying the specific

arts-based medium employed to better facilitate the project with the community (Ong et al., 2020).

Arts-based methods could be advantageous because participation can result in rewards to participants. Participants have the opportunity to create and share stories, and there may be elements of group bonding and positive emotions that come from hearing from others with shared experience (Fiddian-Green et al., 2019; Gubrium et al, 2016). In some studies, participants may keep the artistic creations they have produced so they have something tangible from the experience (Fiddian-Green et al., 2019).

Researchers have taken different approaches regarding analysis of arts-based data, including only analyzing the transcripts of the digital stories (Krause & Gubrium, 2019), including analysis of the story circles (or equivalent) (Fontaine et al., 2019), and by adding other data collection points such as surveys (Gubrium et al., 2016). In their review of arts-based methods Coemans and Hannes (2017) identify that many researchers struggle with the analysis stage. The exciting and simultaneously challenging aspect of data analysis is that both the process and the artistic creations can be analysed as data (Gastaldo et al., 2018). This challenge is compounded because, it can be difficult for participants to represent abstract ideas through imagery (Amsden & VanWynsberghe, 2005). However, standard transcripts of corresponding interviews or focus groups can add to the data (Boydell et al., 2020; Coemans & Hannes, 2017; Colón-Ramos et al., 2017; Dew et al. 2018; Gastaldo et al., 2018).

Potential disadvantages of using an arts-based method are time and financial requirements (Dew et al., 2018; Gastaldo et al., 2018). Another one of the primary disadvantages is related to ethics (Boydell et al., 2012; Coemans & Hannes, 2017; Gastaldo et al., 2018; Guse et al., 2013; de

Jager et al., 2016; McCorquodale & DeLuca, 2020; Orchard, 2017). At the time of their systematic review of arts-based health research methodologies, Fraser and al Sayah (2016) found that the ethics conversation was insufficient regarding art-based methodologies. Challenges include, that people may inadvertently make themselves or their community vulnerable and the researcher may intervene in an effort to protect the participant, but the participant may feel they are being censored (Vaughan, 2016). Furthermore, people may create art that does not align with the researcher's agenda (Cunsolo Willox et al., 2012). In the worst-case scenario, participants may create work that is hurtful or discriminatory (Guse et al., 2013; Wilson & Flicker, 2014). In such instances it can be important to have enough facilitators and support options available for the participants, which necessitates greater resource input (Orchard, 2017). Practically, Gubrium (2009) describes how at the end of a digital storytelling project there will be less "conventional data" (p. 190) to work with but perhaps greater depth.

While the use of arts-based methods is increasing (Coemans et al., 2015; Fraser and al Sayah, 2016) these methods require further refinement in health research (Boydell et al., 2012), including in theory development (Fraser and al Sayah, 2016). Arts-based methods are intended to result in long-term health improvements for the participants, but as of yet, there have not been longitudinal studies to measure whether this is occurring (Fiddian-Green et al., 2019; Macken et al., 2021).

The following two sections contain supplemental details, beyond what is described in Chapters 2 and 3, about the methods for Studies 1 and 2. The supplemental details for Study 3 are contained within Chapter 5.

1.10.7 Study 1

Screening with The Household Food Security Survey Module (HFSSM)

Immediately following the eligibility screening, potential participants were screened for food security using the adult questions of the 18-item Household Food Security Survey Module (HFSSM). For this study the participants were classified as either having experienced exclusively food security in past year or having experienced any degree of food insecurity in the past year. The level of food insecurity experienced by participants was not considered significant to this study. Therefore, the potential participants were assigned to a focus group category based on having been screened as either experiencing food security or experiencing food insecurity.

Prior to beginning the HFSSM screening participants were read the following brief preamble, with the intention of destigmatizing food insecurity.

Table 1

Preamble to Potential Participant Screening with the HFSSM

This study on food security has been designed so that there are different questions for focus group participants based on if they are food secure or food insecure according to a screening tool. For that reason, I will be screening potential participants using the adult questions of the 18-Item Household Food Security Survey Module. If a person answers any question affirmatively, they are considered to have experienced some level of food insecurity in the past year, and the screening will stop. Therefore, any affirmative answers will lead to my placing that person in the focus group for participants who have experienced food insecurity. It's important to remember that people in both focus groups come to this research with different experiences and different levels of food security and these may change with time. It is also important to remember that food insecurity is a common experience, affecting more than 1 in 10 people in Canada. If you decline to participate in the screening, then you are ineligible to participate in a focus group. However, this will not exclude you from potential participation in a different element of the research such as an interview, if you would be interested in taking part in that. Thank you. Do you have any questions? May I begin the screening now?

The Screening took place over the telephone. The potential participants were informed of their screening results as either food secure or food insecure.

This research involved four focus groups. The first three were for participants with experiences of food security, while the last one was for participants with experiences of food insecurity. The focus groups were facilitated by the doctoral researcher. This was a good fit because of their veganism. Having some commonality between focus group participants and facilitators is

beneficial for focus group research (Carey, 1995; Krueger & Casey, 2015; Onwuegbuzie et al., 2009; Tracy, 2020). Focus groups were selected as the data collection method because they are appropriate for exploratory studies that seek participant perspectives (Wilkinson, 1999). As the theoretical concepts of food security and community food security may have been unfamiliar to participants beyond the colloquial usage of the terminology participants were provided with definitions of both these theoretical concepts. It is not uncommon for focus groups to utilize prompting material such as this (Onwuegbuzie et al., 2009).

Question Guide and Pilot Testing

There were two question guides developed, one for the food secure focus groups, and one for the food insecure focus group. The questions were very similar across these two sets but whereas questions for the food secure groups asked what it was like to experience food security, and how one would know that they were food insecure, the questions for the food insecure group asked the inverse. (See Appendix D for question guides).

The draft question guide for the food secure focus groups was pilot tested in-person with a group of three, food secure, lacto-ovo vegetarians. These individuals were personal contacts of the researcher. The draft question guide was found to be comprehensible by the pilot testers and the questions elicited rich answers. The interview questions were subsequently revised to reduce redundancy in the questions asked and some questions were reworded for enhanced clarity.

Data Analysis

The analysis for this study related to veganism and food security was the third analysis completed. The doctoral researcher explored how other health researchers had analyzed focus groups, and they felt dissatisfied with the methods they were able to glean from the literature.

The doctoral researcher reviewed several textbooks (Braun and Clarke, 2022; Silverman, 2020; Saldaña, 2016; Tracy, 2020) and found they were all lacking a detailed description of how to analyze focus groups. There is no single standard form of analysis for focus group data (Doody, 2013; Vicsek, 2010) nor unit of analysis (Cyr, 2019; Duggleby, 2005; Onwuegbuzie et al., 2009). Cyr (2019) explains that the most common approach to focus group analysis is content analysis. Silverman (2020) explains that many researchers will use content analysis or thematic analysis with focus group data, but discourse analysis and conversational analysis are also possible.

While the doctoral researcher had used reflexive thematic analysis (RTA), for the analysis of the Studies 2 and 3 they chose not to use RTA for the Study 1 data because they were concerned with two potential outcomes. First, they were concerned that the focus group as a unit of analysis would be lost and the analysis would only be possible at an individual level. Part of the rationale for hosting the focus groups for people with experiences of food security and people with experiences of food insecurity was so that comparisons could be made across those two groups. As many authors writing about focus groups have declared, the focus group data is more than just what each individual states but rather conclusions may be drawn and opinions shifted or developed according to what other participating group members share (Carey, 1995; Carey & Smith, 1994; Cyr, 2019). Therefore, the doctoral researcher felt it would be inappropriate to rely on individual quotations alone as representative of either an individual's or a group's perception, and they have included group dialogue where possible when presenting the results. Furthermore, group level analysis is valuable for under-researched topics (Cyr, 2019).

In a one-on-one interview, the influence of the interviewer is not insignificant, but in the case of this research the interviewer was the same individual across all interviews, therefore bringing the same approach/energy/knowledge/experience to each interview. However, the opinions and

experiences of participants shared in the focus groups could be considered less fixed and more collaborative. Focus group members influence one another in both overt and more discrete ways (Smithson et al., 2000).

The doctoral researcher was concerned that using RTA would be a form of homogenizing the data. For example, they thought the experiences and opinions of the food insecure group may not be represented in a reflective thematic analysis because of the number of participants who were experiencing food security was several times larger than the number of participants who were experiencing food insecurity. RTA looks for patterns across the data and while outliers can be acknowledged it is not the general practice of those doing RTA to report on results that did not end up constituting a theme.

Finally, from the perspective of personal skill development the doctoral researcher wanted to advance beyond a single approach to data analysis across all studies. To move beyond RTA once they were familiar with it, to the process of phronetic iterative analysis (Tracey, 2020) was challenging. Shifting into a new form of data analysis felt uncomfortable and strained at first. However, the doctoral researcher was able to push through this and challenge themself to undertake a new (to them) form of analysis.

In the focus groups if one person mentioned something, it was difficult to quantify the significance of that to the rest of the group if there wasn't verbal agreement with the statement being made. Unless something was directly contrasted by a statement of other group members it was considered as being coded once for that group. It was also difficult to know if the group members were engaged in discussion about a topic, if one should code each participants' contribution individually or code the section as a single instance of the code. The doctoral

researcher chose to code sections as single instances of codes. This is an example of why it could be inappropriate to have done a content analysis of the focus groups, because this material may have been underrepresented in the frequency counts.

1.10.8 Study 2

Question Guide and Pilot Testing

The semi-structured interview question guide (Appendix E) was pilot tested three times. Pilot tests 1 and 2 took place in-person, while the third pilot test took place over an online platform. During the first pilot test some of the questions led to confusion for the pilot tester, while others were found ineffective in eliciting a rich response. The first pilot tester was a lacto-ovo vegetarian. The questions were revised before the second pilot test.

The revised questions resulted in more fruitful answers from the second pilot tester, a person who followed a vegan diet. There was no confusion evident or reported during this pilot test.

The third pilot test, was similarly successful, although there was one question for which the pilot tester requested clarification. This question was subsequently reworded. The third pilot tester was a lacto-ovo vegetarian.

Pilot tests 2 and 3 lasted approximately 45 minutes, while the length of pilot test 1 was not recorded.

1.11 Ethics

This research was approved by the University of Waterloo Office of Research Ethics, approval number REB #44397 on December 14, 2022. Approval was through expedited review.

All participants provided written informed consent. The recruitment posters, Information Letters and Consent Forms can be found in Appendices A, B, F, G & H.

Chapter 2: Vegan Perceptions and Experiences of Food Security and Food Insecurity

2.1 Overview

As plant-based eating patterns are increasingly recommended by public health it is important to consider how issues and ideas of food security may intersect with the lived experience of those following such a diet. Vegans follow plant-based diets out of ethical concern for animals. This research explored vegans' experiences and perceptions of food security though the use of focus groups for people who were food secure (n=13) or food insecure (n=3) in the year preceding the study. The results indicate that both the food secure and food insecure vegan participants faced difficulties accessing vegan friendly foods at times. The participants felt they were responsible for their own food security as vegans due to a lack of a vegan friendly social safety net. During the focus groups participants recommended different strategies to one another to try to enhance food security. While food secure vegans thought people should prioritize eating any food, above eating vegan food during times of food insecurity, the food insecure participants identified the central importance of veganism in their lives and explained that compromising their ethics would lead to negative wellbeing outcomes. Finally, there was a perception that food security at the individual, community, and global level could be enhanced by the increased adoption of veganism.

Key words: veganism, food security, qualitative research, community food security

2.2 Introduction

Since the SARS-CoV-2 pandemic food prices have risen globally. While North American price increases have been minimal in proportion to the increases experienced throughout much of the world (FAO et al., 2023) food security has become more of a concern for Canadian consumers.

Additionally, Canadians have faced increased costs of living in recent years (Li et al., 2023) which can contribute to having less money available for food. Income is associated with food insecurity levels in that, generally, as income rises food insecurity decreases (Li et al., 2023; Tarasuk, et al, 2019). Across the provinces of Canada, the prevalence of household food insecurity is 22.9%, with 6% of the population being severely food insecure (Statistics Canada, 2024).

Typically, healthier diets are more expensive than unhealthy diets (FAO & WHO, 2019) making them less accessible. When most people choose food, the primary considerations are how much it will cost to purchase and whether they like it (Röös et al., 2017). Although often framed as a concern for the economically advantaged, concerns about food quality and environmental impacts exist amongst lower-income groups as well (Hayes-Conroy & Sweet, 2015; Roe & Buser, 2016).

Diets that are healthy and sustainable are "dietary patterns that promote all dimensions of individuals' health and wellbeing; have low environmental pressure and impact; are accessible, affordable, safe and equitable; and are culturally acceptable" (FAO & WHO, 2019, p. 9). The foods emphasized in sustainable healthy diets are plant-based, whole foods (FAO & WHO, 2019). Diets such as the current Western diet, which is heavily reliant on animal products, are not sustainable (Röös et al., 2017).

Vegan diets can be sustainable, healthy diets (Reed Mangles et al., 2003). Veganism is a type of vegetarianism and a growing sub-culture that significantly alters what is considered acceptable as food. Amongst surveyed university students, 15.9% indicated a preference for vegetarian foods, while 6.1% indicated a preference for vegan foods (Meal Exchange, 2021).

Overall vegans make up approximately 2 percent of the Canadian population (Charlebois, 2018), but consideration of veganism as a "philosophy and a way of living" (The Vegan Society, 2022, Key Facts, para 2) is important because of the potential benefits of veganism for public health, including food security, and environmental health (Hemler & Hu, 2019; Mason-D'Croz et al., 2019). Some suggest plant-based diets and meat-substitutes, which may be vegan, can be used to combat food insecurity (de Boer & Aiking, 2011; Pais et al., 2022). Indirect contributions to food security can be achieved through decreased meat production, through requiring less water use, for example (Jalava et al., 2016). The 2019 version of the Canada Food Guide eliminated meat and dairy products as unique food groups, suggesting food security is achievable on a plant-based diet. Canada's Food Guide states "the best healthy eating patterns include foods that reflect your food choices related to: taste, culture, budget, lifestyle" (Government of Canada, 2022, para. 3). The Dietitians of Canada (2020) may guide people towards plant-based foods but, they do not specifically direct people to eat a plant-based diet.

Though the Canada Food Guide has changed, and veganism is growing, increased consumption of animal products is occurring worldwide, a trend that has been termed "meatification" (Weis, 2015). The increasing demand for animal products (Bodirsky et al., 2015), may satisfy short-term wants, but the inability to produce enough animal products to meet demand could lead to food insecurity from the perspective of meeting cultural food requirements and food preferences. Increased meatification could lead to subjective feelings of deprivation if people are unable to afford meat. Economic circumstances may at times require meat abstention for people who are not vegetarian by choice (Helstosky, 2021). Being unable to purchase highly regarded foods could lead to relative food insecurity (Elgar et al., 2021; Fitchen, 1988; Hamelin et al., 2002).

However, to date little is known about the food security of those who choose to be vegan. Stereotypically vegans are considered financially well off (Giacoman & Joustra, 2024), due partly to the promotion of veganism by celebrities and internet influencers (Reoder, 2021; Fegitz & Pirani, 2018). In the USA, 4% of those with an income of less than $30 000 were vegan, whereas this number decreases to 2% for higher income brackets (Reinhart, 2018). Other research indicates vegans are most likely to be middle class (Hohoff et al., 2022).

Research results on the relative expense of vegan diets have been mixed. A systematic review found the results were inconclusive as to whether sustainable diets (including veganism) were more or less expensive (Nelson et al., 2016). Some research has indicated that vegan diets may cost the same, or slightly less than diets that contain animal products (Arrieta et al., 2022; Hohoff et al., 2022; Pais et al., 2022). However, other research has found vegan diets only result in cost reductions in more economically wealthy nations (Springmann et al., 2021). In an American intervention designed to explore the influence of plant-based eating on food insecurity levels, 25% of participants reported they had reduced grocery expenditures when following plant-based recipes (Flynn et al., 2021). However, other studies have found a found a vegan diet was more expensive than the baseline diet scenario (Kabish et al., 2021l; Kidd et al., 2021).

In a study of veganism and race, participants of Colour emphasized that homemade, simple vegan meals are both cost saving compared to vegan processed foods and contest stereotypes of white veganism (Greenebaum, 2018). Greenebaum (2018) explains "[s]ome of the more politically savvy participants argue that the association of veganism with whiteness, privilege, and wealth is used to keep vegans of color disempowered and unhealthy by making veganism seem unaffordable, unattainable, and subversive." (p. 693). Thus, it is important to critically examine the framing of different dietary patterns, and peoples' experiences with these diets.

For those unable to provide their own food, food banks and soup kitchens comprise part of the emergency food system. This system relies on donations from individual citizens and corporations. Little of this food may be suitable for vegans. One exception in Ontario is the Toronto Vegetarian Food Bank which provides vegan food (Toronto Vegetarian Food Bank, n.d.).

In recent years, some institutions have been adopting more plant-based approaches to feeding people. Non-vegan participants in plant-focused food programming may not always be pleased with the offerings (Hayes-Conroy & Hayes Conroy, 2013) but it is important to consider the consequences of a lack of exposure to plant-based foods, which can extend beyond the individual to other species. Cole and Morgan, (2011), wrote of the danger of "moral injury to omnivorous [eaters] who are not presented with the opportunity to understand veganism and the challenge to speciesism that it contains" (p. 134). This is relevant to consider in Canada where the federal government has recently announced a national school food program will be developed (Prime Minister of Canada, 2024). This program could model sustainable, healthy diets that contribute to reducing harm to animals. Reducing harm to animals is among the primary goals of veganism.

As a subculture, there is reason to believe that vegans may experience unique challenges to their ability to eat a 'culturally acceptable' diet impacting their food security. Veganism is a minority diet and people who prepare meals for vegans may not always be capable or willing to provide a vegan option, influencing whether food is appropriate to the sub-culture and if vegans eat or go hungry. Thus, vegan food security can be compromised in situations where mainstream food security is maintained. For example, a recent court ruling in Ontario determined that veganism is not a creed therefore the employer of a vegan wildlands firefighter was not required to accommodate the firefighter's diet while he was working on location (Knauff v. Ontario, 2023;

Labchuk, 2023). Therefore, while other firefighters who consume a mainstream Western diet, or those who may have religious dietary restrictions are provided for, this firefighter is unable to obtain the food he needs to meet his nutritional requirements. Living in remote work camps is not conducive to providing one's own food so this firefighter's food security is compromised by a lack of access to appropriate food.

This paper explores how vegans from a region of southern Ontario, Canada view food security and how they have personally experienced food security or food insecurity within their lives. This research sought to answer the following two research questions:

- How are the present and future of food security conceptualized from a vegan lens?
- What is a vegan experience of food (in)security like?

The study used the FAO's (1996) definition of food security "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (para 13) and Hamm and Bellows' (2003) definition of community food security: "a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (p. 37).

This research was approved by the University of Waterloo Office of Research Ethics, approval number REB #44397 on December 14, 2022. All participants provided written informed consent.

2.3 Methods

Focus Group participation was open to adults who were vegan according to the Vegan Society's (2022) definition of veganism, for at least 1 year. Participants were recruited via convenience

and snowball sampling. Recruitment posters were placed in local cities and vegan Facebook pages.

Participants were screened for food security using the adult questions of the Household Food Security Survey Module (HFSSM) (Government of Canada, 2012). In Canada, a person is considered food insecure with a single affirmative response on the HFSSM (Tarasuk & Mitchell, 2020). As such, when a participant answered a question affirmatively the screening ended, and they were deemed to have experienced food insecurity in the past year. Participants in Focus Groups 1-3 were food secure, whereas participants in Focus Group 4 were food insecure. Participants were separated based on food (in)security experience so participants would share a common experience with other group members, and because having a core commonality is important for focus group research (Carey, 1995; Kruegar & Casey, 2015). Secondly, given the sensitive nature of experiencing food insecurity, it was reasoned that participants would be most comfortable sharing their experiences with people who had similarly experienced food security or insecurity in the past year.

At each focus group participants were provided written definitions of food security (FAO, 1996) and community food security (Hamm & Bellows, 2003) for reference during the discussions. These two definitions were used to encourage discussion of food security at different levels from individual to global. Each focus group lasted approximately 1.5 hours and took place during the summer of 2023.

Tracy's (2020) method of phronetic iterative analysis, and the coding methods of Saldaña, (2016) were used for data analysis. There is debate within the literature regarding the unit of analysis in focus group research (i.e. group or individual) (Carey & Smith, 1994; Cyr, 2019;

Onwuegbuzie et al., 2009; Vicsek, 2010; Wilkinson, 1998). In this research the group was used as the group dynamics were believed to facilitate the development of both individual statements and group dialogue (Smithson, 2000). To begin the analysis, each focus group was transcribed verbatim, and each transcript was read multiple times. Codes were iteratively applied to the focus group transcripts whereby the codes were refined as the transcripts were reviewed. Each transcript was coded twice using primary cycle coding. After the second round of primary cycle coding the codes were printed out on hard copy and grouped together retaining distinction by the focus group(s) in which they appeared. A round of secondary cycle coding followed, where theoretical constructs were actively considered during analysis. These concepts were food security (FAO, 1996), community food security (Hamm & Bellows, 2003), the four pillars of food security (FAO, 2008), and meatification (Weis, 2015). An ecofeminist lens to data analysis was applied. Descriptive categories were developed through examination of the connectedness of codes. The final layer of analysis occurred during the writing stage as the lead author compared all coded quotations against the descriptive categories. While some codes were moved between descriptive categories, changes at this stage were minimal.

2.4 Results

The 16 participants averaged age 39.25 years of age and 9.5 years of veganism. Prior to becoming vegan, 11 participants were vegetarian. Of the participants, 10 were women and six men, 12 of whom were white, three of whom were South Asian, and one of whom was East Asian. Regarding highest level of education obtained, two had completed high school, four college, four bachelor's, and six graduate or professional degrees. Two participants reported high income, 10 medium income, and four low income.

The details of the four focus groups can be found below in Table 2. The participants in Focus Groups 1-3 were food secure, whereas participants in Focus Group 4 were food insecure. A larger food insecure focus group was planned but on the day of the event life circumstances prevented two potential participants from taking part. On average, the participants in Focus Group 4, were older and had been vegan longer, than the participants in Focus Groups 1-3.

Table 2

Characteristics of Participants in Focus Groups 1-4

Group #	# of Participants	Food Secure	# Women	# Men	# white	# Asian	Average age	Average years vegan
1	6	Yes	5	1	4	2	38	3.66
2	4	Yes	2	2	3	1	35.5	10.5
3	3	Yes	1	2	2	1	31	9.33
4	3	No	2	1	3	0	53	20

While financial resources and geographic circumstances (McPhee-Knowles & Gatensby, 2023) are the ultimate determinants of food security the participants identified the following sources of privilege directly related to food that helped to improve or maintain their own level of food security; being able to do the following: explore new food options, prepare food at home, prepare fresh foods, or having one or more of: a wholesale grocery store membership, access to a farmers' market to buy in bulk, time for food preparation, access to personal transportation, and sufficient freezer or pantry space. Other privileges mentioned were finding vegan food satisfying and having a family that prepares vegan foods. Different participants had different levels of access to the privileges.

Through the data analysis several descriptive categories of participant perceptions related to food security were developed. Table 3 below indicates the descriptive categories and the Focus Groups that yielded the results. Each focus group has been well represented across the results.

Table 3

Descriptive Categories and the Primary Sources of Data by Focus Group

Research Question: How are the present and future of food security conceptualized from a vegan lens?	
Descriptive Category	*Primary Focus Groups Represented*
Vegans and Mainstream Society Differ in their Perception of Threats to Food Security	1,3
Shifting towards plant-based foods will bring more sustainability to food security	1,2,3,4
Vegan food security is a personal responsibility	2,4
Concern that vegan food security issues will be disregarded in times of need because veganism is not socially valued	2,4
Vegan dietary patterns differ in expense and emotional implications	1,2,3,4
Self-provisioning food is either a pleasure or a responsibility depending on one's financial situation	1,2
Sub-Research Question: What is a vegan experience of food (in)security like?	
Descriptive Category	*Primary Focus Groups Represented*
Vegan eating is two of healthy, fast, cheap	1,2,3,4
Compromising on ethics or compromising on food security will both negatively impact wellbeing	1,3,4
Transient experiences of food accessibility challenges occur when food secure vegans have less personal control over circumstances	1,2

2.4.1 Vegans and Mainstream Society Differ in their Perception of Threats to Food Security

The participants explain that mainstream society sees veganism as threatening food security from the lenses of food preference, culture, and economics. However, according to the participants it

is the continued and expanding production of animals for food that threatens mainstream food security globally. According to the participants, future global food security efforts need to contest increased animal product consumption, whereas in mainstream society the meat-centricity of meals is increasing. While the participants disagree with the ethics of meat consumption, they also see increased levels of meat consumption, particularly in North America, as a 'luxury'. This was explained by Participant 1011:

> *And I think that if everyone ate like me then food security would be better [...] It's not possible for everyone in the world to live like they're Canadians, it's just not. If we want everyone in the world to be on an equal playing field, it would mean decreasing our standard of living. The luxuries we are able to have, is not possible for 8 billion people, but it is possible to feed 8 billion people and it makes the most sense to do it with a vegan diet.* (FG 3)

Therefore, the perceived necessity of plant-based diets by participants may lead to perceptions of plant-based diets as threatening food security (related to food preferences for animal products instead). However, non-vegans were perceived as willing to go to great lengths, such as developing lab meat or eating insects rather than eat plant-based, even though these things are not part of the mainstream North American culture. Participants explained the weighting of taste preferences in food choice needs to be critically examined, when it threatens food security, not to mention the loss of animal lives that vegans are ethically opposed to.

However, it was acknowledged by the participants that the mainstream population may not want to change their lifestyle, particularly when they already feel that lifestyle is threatened. One participant explained circumstances in Canada as follows: *"So, your basic is healthcare, housing*

and food. Is basically what your population needs. And you have a population now that I feel thinks that is not secure at all." (Participant 1012, FG 3). Participants explained amidst current difficulties it may be more challenging for people to feel like they have the power or desire for change, including of their diets. For example, participants believed vegan diets are perceived as expensive by non-vegans and government subsidization leads to animal-based foods seeming less expensive than the true cost of production.

Participants believed plant-based alternatives were also seen as threatening food security, through the veganization of cultural foods. However, the participants explored how Western food cultures have been changing and may no longer retain the place-based and contextual significance that necessitated and cultivated their development. Participants explained there is a lack of recognition of the value of existing cultural foods that are vegan and historically many staple foods have been vegan friendly.

According to the participants, a challenge is how to make veganism easier and more appealing to overcome the false perception of veganism as a barrier to food security. Participants repeatedly mentioned the subsidization of animal agriculture must end, so the true costs of these foods are known, which may change purchasing practices. The participants argue that leadership on changing cultural ideas around animal products must come from those in power, but they feel action has been limited.

2.4.2 Shifting Towards Plant-based Foods will Bring More Sustainability to Food Security

According to the participants veganism would result in more sustainable food systems with more food security at different levels, especially considering changing contexts:

> Participant 1012: *I think it already like has been like noted that food security would be increased if more people were able to go vegan. Not only on a community, but a national and a global level. Um, and so I think it's a fact that's known out there, but it is as I say, it's the change that is quite difficult. And I think it's gonna be various factors that are gonna push us towards that in the future. Like you said with global warming, and things like inflation and things like that. You know. With the education of being able to produce more um pulses.*
>
> […]
>
> Participant 1011: *They're gonna merge. The price of gas, the price of water, price of raising crops, it's all gonna come together.* (FG 3)

The participants see an environmental imperative towards sustainability but also how economic factors influence the current food system. The participants believe that people could be taught to be actively involved in food systems, decreasing reliance on corporations for food. Teaching students food related skills was regarded as valuable: *It seems like this is a no brainer in terms of having science curriculum that actually is usable outside of the classroom.* (Participant 1009, FG 2). Participants believed these skills and knowledge would enhance community empowerment and access to nutritious foods.

Participants also mentioned social justice benefits that they anticipated from more widespread veganism:

> *Like its better, like healthier for our environment to eat vegan diet, which impacts all of us in the community. Right, like. So environmental issues impact all of us.*

> *And usually people who are already vulnerable already it impacts them the most. So just say like magic, like magically we could wave a magic wand and everybody started eating vegan all of a sudden like it would drastically impact our communities. I think mindsets would change, I think violence would go down. I think people would have nutrition they needed and feel secure with food, which would help like with their mental health and with their you know, everything, their ability to learn in school. I think it would impact our communities on a very grassroots level but also it would make a lot of changes happen systemically that we would notice just the overall health I think in our communities. Like it would have a massive ripple effect.* (Participant 1008, FG 2)

Sustainable environments are needed for sustainable communities. However, the current environment is not conducive to facilitating plant-based eating as explained by one participant, In offering a suggestion for change many participants described how plant-based foods should be promoted, normalized, and prioritized on menus. With more acceptance of veganism, they suggested that more vegan options would be developed facilitating greater accessibility of veganism. A more accessible veganism would make for a more sustainable practice for individual maintenance of plant-based eating, and it would enhance sustainability at both community and global levels.

2.4.3 Vegan Food Security is a Personal Responsibility

Food secure and food insecure participants were both trying to reduce food expenses. Some food secure participants were challenged to shift financial resources from other areas:

> *Like, I just feel like everything is going up. So, it's just more stressful financially in general. But I don't feel food insecure. I guess there's less money for other, other things. That I might want to be buying, um, but I don't feel threatened with my food security.* (Participant 1008, FG 2)

However, Focus Group 4 discussed their abilities to shift money from other expenses were less elastic, therefore compromises on food purchases were required.

Amongst the participants of Focus Group 4, the inability to avoid higher costs was framed as a personal failing. As one participant explained, *"Veganism is the central part of my life and right now it's hard being where I want to be as a vegan. But there are ways of doing it better."* (Participant 1014, FG 4). Focus Group 4 participants appear to have a perception of responsibility for their food security. Food self-provisioning was spoken of as one way to gain more control over one's food supply, at an individual and community level.

All Focus Groups highlighted that veganism requires acquiring new knowledge. Currently, this is an individual responsibility because it requires going against mainstream practices and beliefs. Participants discussed how people must be critical and examine why a certain lifestyle or diet is being promoted within society. Knowledge and skill acquisition requires dedication and self-efficacy, particularly in learning new cooking practices. Creativity was seen as helping with food management and preparation. Many participants discussed how veganism had been a process of transition in their lives:

> *I was raised with a parent who cooked with meat at the centre of the plate, right. So, I kinda had to forget everything I knew previously and cook a whole new way.* […] *So, it was a big-time investment. Like learning how to cook differently. And*

> *I'm interested in cooking so it was like almost fun for me to do that. Um, but it did take a long time, right.* (Participant 1002, FG 1)

A lack of ability to develop skills and knowledge was seen as contributing to higher food expenses for people becoming vegan, *"But then if you don't have those skills or that knowledge, I think it is, you're more tempted to buy like the vegan prepared foods which are also expensive"* (Participant 1008, FG 2). Therefore, individuals were seen as responsible for managing their vegan diets.

There was a perception that vegans cannot have an expectation their food needs will be accommodated by others. However, over the course of the Focus Groups there was sharing of knowledge and tips on how vegans could reduce their food-related expenses. While personal responsibility was emphasized, the participants demonstrated how they were oriented towards helping other vegans. To fulfil their individual responsibility for veganism, the strategies participants used or advocated for included: learning traditional food saving techniques, foraging, buying produce seconds, buying in bulk from farmers markets, and shopping for the lowest prices. However, other strategies had been used by participants such as eating more carbohydrates or purchasing foods beyond their best before dates. Participants in Focus Group 2 offered the following suggestions for vegans struggling with food costs:

> Participant 1008: *Like people might not know how to cook from scratch and cook things like the dried beans and lentils and chickpeas and all of that, right so. Just offering support in that area and basics to have that are like really um not that costly financially, and just kinda helping them with their skills. In that, in that way I think would be very useful. And leftovers.*

Participant 1007: *Yeah*

Participant 1009: *Batch cooking*

Participant 1008: *Like cooking enough to have 1 or 2 meals left over saves on energy, time.*

Participant 1009: *Get a big stockpot. Quadruple that recipe.*

Group: *(laughter).* (FG 2)

However, there was acknowledgement by participants that having a level of privilege within their lives facilitated the ease with which they could access the information they needed (i.e. having internet access, time for research, space to store food) and implement the suggested strategies.

2.4.4 Concern that Vegan Food Security Issues will be Disregarded in Times of Need because they are Not Socially Valued

Based on past experiences and exposure to media and social media, the participants anticipated that their veganism would not be respected in times of need. This could be while hospitalized, experiencing homelessness, or if they were to be incarcerated. This could include when becoming incapacitated due to illness, injury, or disability. Regarding veganism Participant 1014 explained *"Yeah, they [society] don't take it seriously. Because they see it as, it's a choice. So, it's not religious, it's not you know, you don't HAVE to be vegan."* (FG 4)

The participants believe there is no safety net for food insecure vegans and anticipation of lack of respect and understanding would compound the emotional toll of having to turn to emergency

food. Participants believed that most food provided through emergency food aid would not be suitable for vegans, although some exceptions were noted, particularly in large cities. Some participants mused about how this may be a Western phenomenon. However, participants in Focus Group 4 argued that food should be a human right and that food providers must have vegan options. However, until veganism is valued, these options will not exist.

2.4.5 Vegan Dietary Patterns Differ in Expense and Emotional Implications

The participants in Focus Groups 1, 3, and 4 discussed how different vegan dietary patterns have different associated costs. Participants in Focus Group 1 emphasized what they saw as dietary patterns representing trichotomous ways of eating.

> Participant 1002: *That's what I hear and I think for me there's kinda like no middle ground. It's like you're kinda going all whole foods vegan and like super healthy but then you could swing that to be really expensive if you're doing all organic kind of stuff. Or you could swing that to be really cheap where you're doing beans and rice and oats and bananas kind of thing. Or you could swing like unhealthy and like it can be really cheap to eat unhealthy cause if you're eating all the [tortilla chips], like [flavour of tortilla chips] kinda thing (laughs).* (FG1)

Participants in all Focus Groups believed eating simply was less expensive. Participants frequently shared their idea of a healthy meal was beans and rice. However, the participants in Focus Group 4 discussed how eating simply can become monotonous, compromising one's enjoyment of food. Preparing healthy diets on a budget was also discussed as a stressor amongst the participants of Focus Group 4. This led to experiencing negative emotions, as one participant explained:

> *Well on the emotional side there's a lot more worry, particularly I mean starting off the week, the shop, we're quite elated because there's a lot of food available and then halfway through the week then there's a lot less food available and ah one has to start thinking how you're gonna put this together too.* (Participant 1016, FG 4)

In contrast to this, many food secure participants saw vegan foods are contributing to increased pleasure in eating, joy at the expansion of their palates, and better tasting food through learning new cooking techniques.

Reflecting on the expense of eating vegan led one participant to explain how that expense was socially constructed, but has interconnections with household and community food security:

> Participant 1011: *But it is expensive, but it doesn't have to be. I think the way that our culture and our life has been oriented, it's very much around the subsidies and government connections given to the corporations associated with fast food and meat packing and the dairy industry. If you look at the government subsidies and whatnot that they get. And if you look at what should be on paper the cheapest option - it wouldn't be raising livestock. If you look at on paper the best option for the environment - it wouldn't be raising livestock for food. If you look at on paper what should be the healthiest option - it shouldn't be raising livestock for food. And so, all of those buttons of food security, and community food security, could very well be achieved through veganism, if not easier through veganism, but it's such a difficult concept to grasp. A world-wide vegan community, it seems impossible. Especially to someone who's not vegan.*

This led to rich discussion about food security within Western society, and comments about how what is sold to people as 'vegan food' is largely based on an economic imperative towards profit. Simple food is often not what is represented of veganism rather it is processed, prepared foods available at specialty shops and grocery stores.

> Participant 1011: *Unless you're stripping down to just straight pulses and rice, you know it seems like I think a lot of people have an idea of the, the vegan lifestyle of being an elitist one and certainly a rich one. If you look at the clientele of any vegan restaurant they are certainly not food insecure. And it really has to do with the fact that rice and beans is one of the cheapest things to make.*
>
> Participant 1012: *That's what I was gonna say. [...] Because yes, you're right, the nut milk, all the nut cheeses and all meat analogs and things like that are very expensive. And they would, if you're feeding a large family be very expensive to maintain. But like you said, if you're using those basic ingredients, things that don't come with a list of ingredients on the package.*
>
> Participant 1011: *Mmhmm.*
>
> Participant 1012: *Like your rice, like your beans, vegetables, um, then food security is much easier to attain.* (FG3)

Participants recognized being *"conditioned"* (Participant 1015, FG 1) by societal expectations to purchase processed foods. Processed foods that were intentionally marketed as vegan were framed as often being more expensive. Along with this, participants in Focus Groups 1, 2, and 4

remarked that there were often surcharges on vegan friendly foods. One participant explained the potential notions about vegan food this could engender:

> *So, for me I think my biggest concern is like giving a special status for this kind of food like being this like really expensive special food which is indeed actually cheaper than other options.* (Participant 1010, FG 2)

Participants identified privilege in access to knowledge of which simple foods vegans can eat for health:

> Participant 1001: *Like I used to think that beans were just something you might have on the side, like salad, like once a month or something.*
>
> Group: *(Laughs)*
>
> Participant 1001: *It's like, you realize it like, if you're vegan that is what you eat. Like that's knowledge. Like knowing that is actually what you can eat every day. Like different kinds of beans. And you realize there's like 10 different kinds or whatever. And there's legumes and lentils and all that stuff. And um, yeah, it's like just. I think sometimes I talk to people that aren't vegan and it's like, they're just like, what do you eat?* (FG1)

The food secure participants felt positive emotions associated with eating less expensive vegan staples, however some also had the option to consume a greater diversity of foods generally. Therefore, they avoided the negative emotions related to forced monotony in diet and worry about access to sufficient fruits and vegetables.

2.4.6 Self-provisioning Food is Either a Pleasure or a Responsibility Depending on your Financial Situation

Food secure vegans may experience additional work related to food provisioning, and vegan food provisioning in particular, as pleasurable if they consider cooking or gardening amongst their hobbies.

> Participant 1005: […] *if you're open minded to new ideas I mean I never really enjoyed cooking a lot but when we became vegan, suddenly I needed to become interested in recipes and it's great fun!*
>
> Participant 1003: *Mmhmm, yeah it is fun*.
>
> Participant 1005: *It's a paradigm shift and it's been good.* (FG 1)

Focus Group 4 experienced the imperative of food self-provisioning as an added responsibility. Increased levels of food self-provisioning were seen as beneficial by both the food secure and food insecure groups with community gardening presented as a mechanism to enhance food security although several participants did not experience gardening as a money-saving activity.

2.4.7 Vegan Eating is Two of Healthy, Fast, Cheap

The participants described vegan food security would be enhanced by increased availability of economical, healthy staples and prepared foods. According to the participants veganism takes more work initially and the vegan prepared foods that are available tend to be 'junk foods' or expensive.

Across the Focus Groups participants perceived it was possible to get healthy food, and it was possible to get prepared foods, as a vegan, but there would be a level of associated expense. Participants in Focus Group 4 explained that access to food and access to knowledge were needed. Alternatively, one could get cheaper, fast food but it may not be healthy. The participants in Focus Group 4 contrasted the challenges of veganism and food security with their perception of the Standard American Diet (SAD):

> Participant 1014: *To be ethical, to be vegan, to be clever in your food consumption, to like, it's so much more work.*
>
> Participant 1015: *It is.*
>
> Participant 1016: *Juxtaposed the average SAD diet is you can sleepwalk through it.*

The participants discussed the availability of healthy vegan prepared foods should be improved. Vegan foods at restaurants are often boutique and expensive which does not help the food security issues of people in need, regardless of sustainability. One food secure participant who tried to prioritize healthy and sustainable foods explained how limiting this can be:

> *So, there are times when I'm exhausted but then I don't have a choice I have to cook because all I have is raw food.* (Participant 1006, FG 1)

2.4.8 Compromising on Ethics or Compromising on Food Security will Both Negatively Impact Wellbeing

Food secure participants emphasize food security over ethics for vegans experiencing food insecurity, whereas food insecure participants see compromising ethics not only as undesirable,

but as compromising wellbeing in other ways. One participant described how they felt their current situation of food insecurity was leading to them being unable to meet their nutritional needs. This manifested negatively as irritability and low mood. However, to the food insecure participants consuming animal products would compromise their physical and mental health. The following exchange took place during Focus Group 4:

> Participant 1015: *That's a really good point you raise because people say to me you don't have to be vegan. Yes, I actually do.*
>
> Participant 1014: *Mmhmm*.
>
> Participant 1015: *And you know why? Because my ethics won't allow me not to be, and that's starts a conversation. Because I have to be vegan. There is no way I cannot.*
>
> Participant 1016: *Oh yeah.*

However, the participants felt that with current societal values ethics are seen as something *"disposable"* (Participant 1015, FG 4).

The food secure participants explained veganism may be more or less feasible in different global contexts:

> *I have always, always been privileged enough to be in the food secure group but I have seen people around me, especially back home in India, there is a lot of food insecurity in general. Those people do not have the privilege of becoming vegan they would eat whatever they can eat because that's the only meal they are*

> *getting. So, asking them to [be] vegan, you know, or advocating it to them that's not really a doable thing.* (Participant 1004, FG 1)

It appeared to participants that in some situations of food insecurity such as famine, people are eating plant-based not out of a choice but because plant-based staples are all that is available.

> *The most food secure people are able to be vegan and the most food insecure people have to be vegan. And so existing on two ends of that extreme I do think are unique. It's almost this horseshoe effect.* (Participant 1013, FG 3)

In a North American context participants suggested it would be less likely that purely plant-based staples would be available to the most severely food insecure.

> Participant 1011: *They don't have the luxury of making those meal choices and our society is so centred around meat and it, and dairy products. That the default is to be an omnivore.*
>
> Participant 1012: *Yes.*
>
> Participant 1011: *Makes the choice for you if you don't have the luxury to make it yourself.* (FG 3)

Recognizing the double burden of being unable to provide food for oneself and being unable to provide vegan food for oneself, a participant offered the following advice to food insecure vegans:

> *You do have to be gentle with yourself because I think that could lead to quite a bit of feelings of inadequacy. [...] So you need to be easy on yourself, ride through it and keep going in the future.* (Participant 1012, FG 3)

Participants noted since veganism is more than a diet, people with vegan intentions could engage in vegan actions in other ways. However, it was discussed how having privileges that led to less challenging life circumstances can facilitate exploration of veganism.

Across three Focus Groups (2,3,4) participants explored the idea that what one perceives as food is shaped by forces including ethical commitments.

> Participant 1009: [...] *but if they have a little bit of money then it's a matter of figuring out how to use that money like. If someone is ethically committed to veganism I have a hard time imaging that they are going to like opt for a [fast food hamburger] over a bag of lentils. Given that those things are the same price essentially, right. Like.*
>
> Participant 1010: *And one you can eat for like a month.* (FG 2)

One food secure participant explained how a food insecure vegan may first sacrifice taste before they are forced by circumstances to sacrifice their ethical principles.

2.4.9 Transient Experiences of Food Accessibility Challenges Occur when Food Secure Vegans have Less Personal Control over Circumstances

The food secure participants of Focus Groups 1 and 2 described how during times when they lacked control of their food supply, their food availability and access has been compromised. This may happen when travelling or visiting friends and family. In these situations, participants

may be unable to purchase food that meets their needs because it is not available geographically or due to interpersonal expectations. As Participant 1002 explained, travelling is challenging, *"Because I can't just like go anywhere potentially and be able to find like something that is like nutritious and like well-priced, kind of thing"* (FG 1). This participant explained vegan food provided to them in a professional setting was nutritionally inadequate. At other times when provided food participants noted the food was not vegan, but they were instructed to eat around the non-vegan elements.

> Participant 1010: *And once the air hostess gave me a box of food and it looked like meat. I asked, it's vegan? [She said] Just eat the right part. It doesn't work like that. She just said like eat the right part and throw away the left. It doesn't work like that.*
>
> Participant 1009: *Scrape the cheese off the pizza.* (FG 2)

Instead, participants strategically prepared meals in advance and brought food from home. This became difficult when travelling greater distances (keeping food cool) or going through airport security (with restrictions on liquids, or bringing produce across borders).

While some participants' families and friends were accommodating towards veganism for others a visit meant advance preparations. Participants described how visiting can be fraught due to the different foods that may be prepared by others not being vegan friendly. Participant 1002 faced a similar challenge:

> [...], *even if I'm going to family for dinner. I'm like, I would rather bring my own meal so that we can all just be happy rather than like, kinda walking on eggshells, about what the meal is going to be*. (FG 1)

That these participants could prepare and travel with food, demonstrates a level of privilege they have in being able to provide for themselves. As was explained by a participant, and agreed upon by others, what can be bothersome for a more privileged person may be an impossibility for someone less privileged.

In Focus Group 2 the participants acknowledged their experiences were temporary and therefore did not consider themselves to be food insecure during these times.

> *But it's like temporary, right? And you could be hungry for a little while and then you can always find something. But it's like knowing that you might have to eat like an iceberg lettuce salad. You know for a couple meals or something like that.* (Participant 1008, FG 2)

Participants described how people living in food deserts or more northern, rural, or remote geographic regions may not be able to access healthy vegan foods. However, the participants often explained that this meant healthy foods were not generally available commercially in those places, although they believed all people should have access to fruits and vegetables.

2.5 Discussion

According to the results, vegan food security is dependent on one's ability to provide the necessary food to meet their own needs. Thus, at present food security is conceptualized as a personal responsibility that the vegan must take upon themselves. The participants perceive

present limitations to ensuring vegan food security when people are unable to provide for themselves due to financial limitations or geographic location. When discussing food security at present, the participants refer primarily to individual or household level food security. In contrast, when discussing food security in the future, the participants are more oriented towards community food security. Amongst the participants, the increased adoption of veganism was seen as necessary for future food security globally. The participants saw adoption of veganism as a responsibility of citizens to protect the future food supply. Gaard (2002) has identified that food choices are "always already political, cultural, ecological choices" (p. 135) and we see within the results that the participants have discussed each of these contexts, aligning with a vegan ecofeminist perspective.

The participants' experience of food (in)security suggests that vegan foods may be affordable, easy to prepare, and healthy. However, in the experience of the participants, vegan foods are not all three of these elements at once. This aligns with a widespread concept in project management known as the triple constraint, wherein time, cost, and quality serve as limiting factors (van Wyngaard et al., 2012). Processed foods and vegan specialty foods were identified as expensive. This can lead to compromises in food purchasing patterns to try to maintain or enhance food security. The results indicate, when one has a level of stability in their life, they are better able to safeguard continuous food access compared with during times of disruption, such as during travel or when experiencing reduced income. The experience of vegan food security is mediated by the privileges one holds. In the content that follows we will discuss these results in greater depth and compare the results with the available literature.

The participants attribute Western meatification to government subsidies and corporate advertising. Food price and desirability shape purchasing behaviors. Thus, it may be that the

familiarity of meatified diets, which are now the Western norm, bring comfort to eaters, especially in times of uncertainty. Maintaining the status quo upholds familiar power structures within society (i.e. meat and masculine power, Adams, 1990/2020).

The literature indicates veganism is seen as a "threat to dominant social structures" (Roeder, 2021, p. 308) in mainstream culture, rather than an opportunity. The narratives shared by the participants provide insights that suggest within mainstream society veganism is indeed regarded as a threat to the individual level food security of non-vegans. In contrast to this perception, veganism can exist within traditional food systems (Giacoman et al., 2023). There was a belief among the participants that different cultural groups beyond the Western world have traditionally followed diets that were more plant-based. Indeed, for example, in the Chilean context some traditional meals are naturally vegan friendly (Giacoman et al., 2023).

As described by the participants, social and cultural changes are needed to enhance the sustainability of the food system. This sentiment was connected to the idea that more education was required amongst the general population regarding knowledge of nutrition, cooking, and food production. As participants discussed, when meat has been central to every meal, one must relearn how to cook and eat as a vegan. Other results indicate low-income vegans (Giacoman et al., 2023), vegans of different social classes (Giacoman & Joustra, 2024), and vegans in general (Giacoman et al., 2021; Twine, 2017) similarly needed to develop new cooking skills. Among the food secure Focus Groups there was a perception that some people who are food insecure may not know what vegan food staples to purchase and use, or how to prepare them (i.e. dried beans). As described by participants in this research, there can be a learning curve to veganism, related to shopping, saving money, and cooking (Greenebaum, 2018). This could be a barrier for food insecure people to engage with veganism.

The participants believe they have a higher-than-average level of knowledge surrounding animal agriculture and nutrition. This knowledge can facilitate veganism, but it necessitates the ability to review and comprehend nutrition labels (Greenebaum, 2012). Knowledge and resources influence health behaviours (Rose, 2011). Having resources provides more space for exploration of different dietary patterns. The current food system obscures costs, labour input, and food origins (Holt-Giménez, 2017). There was a sense among participants that more proactive, and prescriptive approaches to public nutrition education are required.

While the Government of Canada (2020) suggests that Canadians be more mindful of their eating habits and consider "how you eat" and "why you eat", there is a missed opportunity to challenge Canadians to think how what is on their plate not only influences their own wellbeing but can influence the health and wellbeing of people, animals and the environment globally. It could challenge eaters to consider the question of who they eat (Roeder, 2021). Canadians are not being directed to think more systemically and critically about injustice in the food system.

Out of healthy, convenient, or economical, vegans must choose what to give primacy, if they have the financial flexibility to do so. While participants in the food secure Focus Groups suggested that food insecure vegans should prioritize their ability to eat and feed their families, Focus Group 4 explained how compromising their veganism would result in personal harms.

Focus Group 4 participants mentioned their ethical beliefs would not allow them to abandon their veganism. This demonstrates the conviction vegans hold regarding sustaining their veganism in the face of personal challenges. The role of food insecurity has not previously been explored as a possible contributing factor to transitioning away from, or maintaining, veg*nism and for its

contribution to wellbeing. However, based on the results of this research compromising one's vegan ethics is not conducive to maintaining health and wellbeing.

The participants constructed veganism as a personal responsibility because veganism is undervalued within society. Vegans often must prepare their own foods (Giacoman et al., 2023; Twine, 2017) and while this can be a creative or enjoyable process for some vegans for others it is a source of stress, such as when budgets are limited. The participants explained how having an interest in cooking helped to facilitate their food security. Generally, the participants framed veganism as expanding their experience of food, their palates, and their food preparation and cooking skills. Thus, veganism is not a limiting factor to food security, rather unequal food access is a barrier.

The participants had concerns around veganism and inclusivity of different economic groups. Recent research from Chile has found low-income vegans experience veganism as a viable practice, but it requires a level of planning that may not be necessary for non-vegans with higher incomes (Giacoman et al., 2023). The participants' explanations for how to adjust food acquisition practices to one's budget deserve attention in future research. The notion of government subsidies was raised repeatedly during the Focus Groups. Greenebaum (2016) writes that "[g]overnment intervention on the pricing of meat, dairy, and eggs creates a failure to understand the true financial cost of eating animals" (p. 362). Subsidies for plant-based foods change consumption patterns but there are unknowns about the long-term effects of these subsidies (Röös et al., 2017).

Though not writing about veganism specifically, Holt-Giménez (2017) describes how in modern food markets, "[v]alues have been appropriated and utilized by corporations as marketing

differentiators for their products – products for which they'll charge a premium" (p. 73). This aligns with participant descriptions of the expenses associated with healthy or organic vegan foods. This could lead to feelings of food insecurity based not on health or utilization but because a variety of food is needed for satisfaction and if one is aware of products that are available that they cannot access, it could generate negative feelings. This extends the idea of relative food deprivation (Elgar et al., 2021; Fitchen, 1988; Hamelin et al., 2002) to veganism. With the increasing availability of vegan convenience foods there are more food options marketed as vegan than there were in the past, but people may feel a sense of deprivation that they would not have felt if they are restricted from eating convenience foods due to financial constraints rather than due to their ethical choices.

While the strategy of eating fewer animal products to save money has been mentioned in the literature (Giacoman & Joustra, 2024; Miller, 2020), others have reported having to abandon their veganism due to limited funds (Meierotto & Som Castellano, 2020). This research suggests that whether veganism enables one to save money, or results in additional expenditures, depends on the content of the vegan dietary pattern adopted, which is framed as a personal responsibility.

Although specialty foods marketed towards vegans are seen as more expensive, the participants believe eating simple, whole foods, relying primarily on pulses, is the most cost-effective diet one can follow. This finding is similar to results from Giacoman et al.'s (2023) study of low-income vegans, wherein participants spoke of preparing simple foods and relying on pulses. The participants' frequent references to beans and legumes for food security suggest that they are eating these foods at a higher frequency than the average Canadian. When surveyed, only 20% of Canadians had eaten pulses in the past week (IPOS REID, 2010). However, a participant in

Focus Group 4 explained that an emphasis on beans and rice can become tedious and they would like to eat a wider variety of foods.

The strategy of consuming simple vegan meals to reduce expenditures is one that requires a level of agency on the part of the eater. It requires geographic access to whole foods, cooking facilities, and storage space. As described by Fitchen, (1988) lack of space for food storage limits the efficacy of bulk purchases. If the eater has these advantages and is knowledgeable about how to prepare dried beans and other pulses, they still require time for planning and preparation of food, as well as the motivation to follow through on cooking in this way. Repeatedly eating the same foods due to budgetary limitations eventually becomes repetitive and tiresome (Hamelin et al., 2002).

It may also be that the practicalities of the physical and behavioural elements needed to prepare these foods are more accessible to people living on mid- to high- level incomes. This is important because people at different income levels can have different susceptibility to food insecurity depending on other factors within the context of their lives, such as geography. The experience of food insecurity is not limited to people living on a low income. Even those with higher incomes may make compromises in their food purchasing habits to maintain their budgets (Bowen et al., 2014). The idea that veganism can be protective of food security may include the caveat that it applies more to some socioeconomic groups than others.

Food security is tied to income, however as described by the participants there are privileges and practicalities that can buffer, enhance, or protect one's food security. In describing these advantages, the food secure participants were mindful of acknowledging the privileges they have within their lives that enable them to be food secure. It is also worth noting that, while most low-

income participants in this research screened positively for food insecurity, there was one participant living on a low income who screened as food secure. Therefore, it is possible to have a low income and follow a vegan diet without experiencing food insecurity.

There has been a trend in food policy to increasingly emphasize the individual's role in facilitating their own food security (Wakefield et al., 2015). This was demonstrated in Focus Group 4, which involved sharing tips for enabling consumption of fruit and vegetables year-round. Many of these tips required eaters to have additional time, knowledge, and/or space to store preserved foods, necessitating an amount of privilege not shared by all. Furthermore, although they did not have direct experience with food providers, the participants believe currently, vegans in need would not have their basic food requirements met through emergency food aid or by other food providers.

This research builds on past literature that has found vegans have transitory difficulty with food access when travelling (Hirschler, 2011; Twine, 2017). Therefore, the participants maintain control of their diets by preparing food at home as in Giacoman et al. (2023). When the food secure participants experienced times of being unable to access food, they did not consider it a grave concern, but it does reflect societal food priorities, and it reinforces that a personal responsibility to provide vegan food for oneself is necessary. The food environment is shaped by many factors but includes the "social, economic and political environment" (Hendricks, 2015, p. 614). Accessibility of food generally does not equate to food security (Renzaho and Mellor, 2010). Participants conceptualizations of what is food, has rendered their access to food more limited, compared to that of non-vegan people. The participants grapple simultaneously with agency and structure within the food system.

In the neoliberal industrial food system, what occurs within the food system is obscured from the 'consumer' (Johnson, 2018) and often people have little knowledge of the impacts of their dietary choices (Röös et al., 2017). However, the participants have demonstrated that they are knowledgeable about certain aspects of the food system in relation to animal agriculture. Yet, the neoliberal system we live within also emphasizes a personal responsibility for health and a belief in markets to result in optimal conditions for 'consumers'. It appears the participants have been influenced by neoliberalism to take responsibility for their own food security to fill a gap that the participants believe exists in terms of state welfare and at other institutional levels, such as food served at public institutions.

However, while being influenced by neoliberalism, the participants are also trying to resist this system at times. The participants advocate for all of individual behaviour change, collective action, and government action in reshaping food systems. Gaard (2015) argues that we need change across all levels of the system, which means at the grassroots level, among other things, citizens must change consumption patterns.

Aligning with Gaard (2015), the participants have begun to assert their agency in changing their own dietary patterns, however they believe veganism should be more widely adopted within society. They believe with enough demand this will shift the supply side of the market, resulting in less animal use and deaths. The High Level Panel of Experts on Food Security and Nutrition defines agency in relation to food as the "capacity of individuals or groups to make their own decisions about what foods they eat, what foods they produce, how that food is produced, processed and distributed within food systems, and their ability to engage in processes that shape food system policies and governance. (HLPE, 2020, p. 8). Clapp et al. (2022) describe people exercising agency in food systems through boycotts, for example, which move them away from

"passive" consumption (p. 4). Dickstein et al. (2022) have argued veganism can be viewed as a kind of boycott.

Further to this, in Focus Group 4 especially, the participants spoke of wanting to engage with traditional food knowledge, such as how to can, preserve, forage, and grow food. The participants see these as strategies to increase food security and these strategies are non-consumer oriented. While it remains to be seen if these practices would be individualistic or community oriented, such actions still resist and challenge the dominant consumer/market orientation to health.

However, the participants in this research also demonstrate a level of awareness of the limits structure places on them and others, including by recognizing financial and geographic challenges to food access. Even still, it may also be that the participants feel a sense of empowerment through engaging in actions that they believe to be not only nourishing for themselves but also in the best interests of wider communities of humans and the MTHW. Yet they too are structurally limited in part by financial resources, as we see particularly amongst the participants of Focus Group 4.

Participants suggested that more work to food self-provision could be undertaken to improve individual, household, and community food security. Local food provisioning through small-scale agriculture can be a mechanism through which to revitalize neighbourhoods (Alkon & Agyman, 2011; Winne, 2010) contributing to community sustainability and self-determination by reshaping food systems. Yotova (2018), has labelled food self-provisioning as "quiet opposition" to neoliberalism working towards self-determination. Food self-provisioning was sometimes a hobby for participants in Focus Groups 1-3, but it was framed as a responsibility by

the participants in Focus Group 4, who were determined to reduce their food expenditures. Foods that are self-produced are often whole foods, contributing to improved utilization by replacing heavily processed, less nutritious market foods and reducing processing and packaging, increasing sustainability (Gussow, 1999).

Indeed, gardeners report eating more vegetables (Gray et al., 2014; Kortright & Wakefield, 2011; Wakefield et al., 2007). Gardeners may perceive the food they produce is healthier, attributed partly to freshness (Ancic, 2019) and safety (Yotova, 2018). However, having the ability to grow food on one's property or in a community garden had mixed results according to participants in this research. Several suggested it as a mechanism through which to improve food insecurity for food insecure people, despite it only benefitting some food secure participants. On the other hand, Chhabra et al. (2014) propose that community gardens may improve food access by building social capital which could later be drawn upon to augment food supplies. This may be one avenue through which vegans could engage in social networks of food sharing. In this way we move into discussions more centered on concepts related to community food security.

The solutions for managing food security that the participants suggested were primarily individualistic, although the participants demonstrated supporting one another during the Focus Groups by sharing tips for food preservation, cost-saving buying practices, and other forms of food acquisition which is related to bonding social capital (Leddy et al., 2020). This sharing of knowledge amongst participants could encourage feelings of being a member of the vegan sub-culture. Research has shown that feelings of community belonging, and food security are associated (Kansanga et al., 2024). However, although the participants shared tips with one another, discussion of receiving food from personal contacts was very limited across the Focus Groups.

Due to their different dietary requirements sharing food may be an aspect of everyday social relations that vegans are less likely to participate in, which could potentially impact their food security during times of need. In both Eastern European and North American contexts, people may commonly obtain food through their social networks, including their friends, family and neighbours (Ancic et al., 2019; Crespo-Bellido et al., 2020; Kortright & Wakefield, 2011; Meener & Hoover, 2012; Meierotto & Som Castellano, 2019; Piras, 2019; Wakefield et al., 2007) thereby enhancing social networks and community sustainability, while improving food access.

The participants' opinion was that vegans experiencing food insecurity would have fewer opportunities to rely on linking social capital due to a perception of limited availability of vegan options. Therefore, people who follow a SAD may have greater opportunities to draw upon linking social capital to buffer their food security. For example, participants thought veganism, though a deeply held ethical belief, would not be accommodated in the same way religious food requirements are accommodated. The participants expressed how eating a healthy vegan diet was seen as a privilege within society rather than a right.

While acknowledging the privileges they experience, the participants in this research also demonstrated their concern for social and ecological justice issues, which has shaped their food consumption patterns. Holt-Giménez (2017) writes that while individual change will not address structural issues in food systems it is still valuable to engage in individual level efforts. However, Gaard (2015) explained how both "top-down and bottom-up" (p. 29) approaches to change from an ecofeminist perspective are needed, and we see that emphasized by the participants, though their explanation of the need for both individual and government actions for change. For Inglis (1997) empowerment is "working within the system" (p. 4) while emancipation is "trying to

change the system" (p. 4). While the participants may be empowered, they have a vision that could be emancipatory.

For example, there were some participants who specifically named systems of oppression that they sought to challenge through veganism including capitalism, patriarchy, and colonialism. While most participants envision working towards transformation on a societal level there is recognition that it has not yet been achieved. However, it is important to reflect upon Gaard's (2010) assertion that how a process of change occurs is as important as what the change is, within ecofeminism. Thus, ecofeminist values as identified by Gaard (2010) that were present in the results include the desire for "restructuring power and challenging unequal power relationships" (p. 656). The participants did this through their criticism of corporate control of the food system, the power concentrated in industrial animal agriculture, and the subsidies that influence prices shaping which food people may consume.

The participants demonstrate the complexity of food systems through engagement with ideas of both individual food security and community food security. However, the definition of community food security appears to align with the participants' vision for future food security. Community food security has been likened as more akin to food sovereignty (Lowitt, 2014) than individual or household level food security. Food sovereignty advocates for radical systems change (Holt-Giménez & Shattuck, 2011), which could result in emancipation. In line with this the participants advocate for eating simple plant foods as the mainstay of one's diet. On the other hand, the participants have identified through their discussion of lab grown meat how non-vegans may be interested in capital intensive, corporate food development. Such corporate food development would maintain the status quo.

2.6 Limitations

We originally planned to host 6 focus groups, 3 each for participants experiencing food security or food insecurity. Recruitment was more difficult than anticipated, and time limitations meant that we did not continue the recruitment indefinitely. While the 3 group criteria was fulfilled for participants with experiences of food security, we were unable to meet the 3 group criteria for participants with experience of food insecurity. Another possibility that may explain the lower levels of participants for the food insecure group is that veganism was a protective factor in maintaining food security.

The HFSSM is limited in that it only considers if people have the economic means to purchase food (PROOF, 2018). So, if a person can afford to purchase food, but the food available is not culturally appropriate, this cultural aspect of food security would not be accounted for through screening with the HFSSM.

Scheduling difficulties, perhaps exacerbated by the seasonal timing of this research (summer) meant that many people who were screened for participation were ultimately unable to attend a focus group.

The analysis was limited to communication that was captured in the audio recordings, (e.g. speech, laughter, sighs). While some authors recommend inclusion of body language in the transcript, (i.e. Cyr, 2019) this was not possible because the lead author did not record body-language during the data collection process. Body-language may be more significant in focus groups as compared to individual interviews because it may shape the responses and reactions of other participants.

2.7 Conclusions

To be vegan and food secure requires a conceptualization of how to eat well that is outside the mainstream model. To decide whether the choice to be a vegan is right for an individual they must be equipped with knowledge of nutrition, food skills, and animal agricultural practices. People should be informed about their food systems, but currently it is the responsibility of the individual to learn. Importantly, not all vegans are able to get the food they need and want for their well-being. Eating any diet healthfully is an example of having privilege (Greenebaum, 2017) and a reminder of the importance of food security, and food sovereignty.

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Chapter 3: The "Win-Win-Win Trifecta": Ethical Veganism and the Social-ecological Environment

3.1 Overview

Using semi-structured interviews for data collection, this qualitative study explored 26 ethical vegan participants' experiences with veganism in a mid-sized Canadian Region. The participants generally followed a process in their veganism wherein they experienced more barriers early in their transitions. With time and intentionality on the part of the participants these initial challenges often diminished. Through veganism, the participants experienced positive outcomes for their wellbeing, related to mental/emotional wellbeing but including physical wellbeing. The results were generated through a reflexive thematic analysis which developed 7 themes and 1 sub-theme. Thematic results indicate veganism requires a break from the collective consciousness, social location shapes experience with veganism, veganism leads to relational strain with non-vegans, living vegan positively influences wellbeing (with the subtheme of veganism provides a direction for the self), judgement may come from others but not from within, vegans are intentional, and vegans are shifting beyond singularity. Thus. for the participants in this research veganism is more than an individual "choice", it is influenced at different levels of society, and its potential wellbeing outcomes radiate outwards from the individual to both the human and MTHW.

Key Words: veganism, social-ecological model, ecofeminism, wellbeing

3.2 Introduction

As described by The Vegan Society "veganism is a philosophy and a way of living which seeks to exclude -as far as is possible and practicable- all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, promotes the development and

use of animal-free alternatives for the benefit of animals, humans and the environment" (The Vegan Society, 2022, Key Facts, para 2). Veganism has become increasingly visible in the food realm, through the availability of vegan and plant-based products in grocery stores (Twine, 2017). As interest in veganism grows (MacInnis & Hodson, 2017), the percentage of the population who identify as vegan is increasing (Statista as cited in Saari et al., 2021). In the USA the percentage of vegans grew by 50% from 2% of the population in 2012, to 3% of the population in 2018 (Reinhart, 2018). However, many people who identify as vegan are singularly health motivated, which fits outside the scope of The Vegan Society (2022) definition.

Health veganism may be opposed by ethically motivated vegans (Fox & Ward, 2008). This could be because health vegans do not extend their veganism beyond food as ethical vegans do. Research that does not differentiate between health and ethical vegans may miss important differences in perceptions and experiences. For example, non-vegans perceive health and environmentally motivated vegans more positively than they perceive ethically motivated vegans (MacInnis & Hodson, 2017). Despite their differences, within Western society, both health motivated vegans, more aptly termed plant-based eaters, and ethical vegans may be considered good neoliberal citizens, who are helping to fulfil the goals of nutritionism (scrinis, 2008).

There is debate over whether ethical veganism is an individual lifestyle choice like plant-based eating, or a burgeoning social movement. Some have framed veganism as a boycott, making it more akin to a social movement (Dickstein et al., 2022). Among the authors who have framed veganism as a lifestyle choice is Bertella (2020). Through their choices ethical vegans believe they may influence societal change (Bertella, 2020).

Other work suggests that veganism is situated within the broader social context as being restrictive and devoid of pleasure (Cole, 2008). Fox and Ward (2008) identify ethical vegans as "self-denying, proselytizing" (p.2593). By not confronting stereotypes such as these, vegans can contribute to their perpetuation when interacting with non-vegans (Greenebaum, 2012a).

This research addresses calls for research into the relational experiences of vegans, as made by Twine, (2014). Twine, (2014) found relationships between vegans and non-vegans can become fractured over veganism. In the decade since Twine's research, awareness of veganism has increased within the cultural zeitgeist, and more people now identify as vegan. This period may have provided an opportunity for non-vegans to become more accepting of veganism. Indeed Twine (2014) notes that in time some non-vegan friends and family members may come to prepare vegan dishes for their vegan kin, bringing the joy of commensality back into the lives of vegans.

Vegans are often assumed to be educated, white, women (Twine, 2014). People with these characteristics experience privilege through their education and race, but experience oppression as women within a patriarchal mainstream Western society. Research has found that women comprise about 75% of the population of vegetarians and vegans in the United States (Humane Research Council, 2014). This has implications for experiences with, and perceptions of, veganism. Although they may not discriminate against vegans, non-vegans can be biased towards them (MacInnis & Hodson, 2017). Furthermore, Harper (2020/2010) explains that People of Colour and people with disabilities have been left out of Western veganism. A recent scoping review concluded that "hegemonic masculinity and whiteness are challenges within veganism as well as social constructs that vegans can contest" (Russell, 2023, p. 34).

Vegan participants were found to experience “physical, eudaemonic, and spiritual well-being" (Hirschler, 2011, p. 156) in one qualitative study. Perceptions of improved physical health were prominent amongst Bertella’s (2020) participants. Yet research on veganism and mental health remains limited. Michalak et al. (2012) have proposed two hypotheses as to why within their study, vegetarians had higher rates of mental disorders, which most often precede the adoption of the vegetarian diet. Michalak et al. (2012) suggest that their participants, having suffered from mental distress may have been more aware and attuned to animal suffering. Having a mental disorder may lead to greater concern with health, and vegetarian diets are often seen as healthful (Michalak et al., 2012). An example of a major limitation within the research that exists on vegetarian diets (of which vegans are a sub-category), and mental health, is that participants classified as vegetarian often consumed fish (Michalak et al., 2012) and were therefore not vegetarian.

There is still much about the vegan experience that is unknown. This research addresses calls for more research into experiences of vegans motivated by ethical reasons (Bertella, 2020). Although part of a larger study, the research presented within this paper, answered two research questions. The first question sought to identify barriers related to veganism, and the second explored how veganism enriched the lives of the participants. Both questions were considered with a lens to understanding how these factors may influence health and wellbeing amongst vegans at different levels of influence from the individual to the structural. This was achieved through reflexive thematic analysis (Braun & Clarke, 2022) and the application of a social-ecological model (SEM).

3.3 Methods

Within an ecofeminist theory different forms of oppression are seen as connected (Twine, 2022). Consideration of different identities necessitates recognition of the structural systems in place in Western society that influence an individual's experience with veganism. Exploring factors at different levels of influence can be achieved through the application of a SEM. Considering factors at every level of an SEM is necessary for long-term success in behaviour change (Sallis & Owen, 2015), therefore by applying a SEM to our results we may be able to see areas where future efforts to support people in their veganism could be made. SEMs have been applied in food related scenarios (see for example, Brothers et al. 2020) but this will represent the first application of the SEM to experiences of ethical vegans.

There are numerous variations of SEMs used widely across public health (Sallis & Owen, 2015). This research used Dahlberg and Krug's (2002) version of the SEM but was informed by Story et al.'s (2008) ecological framework, a SEM that was designed to encompass the myriad factors that lead people to eat what they do. The Dahlberg and Krug (2002) SEM consists of four levels: individual, relationship, community and societal. An equivalent model has been adopted by the U.S. Centres for Disease Control and Prevention (2024), so it is considered relevant to a broad audience. Story et al.'s (2008) SEM is similarly four levels but differs in that one level is concentrated on physical environments. Exploring physical environments has more applicability to elements of food security such as availability and access, which was not the focus of this study. Therefore, we drew from Story et al. (2008) to inform our consideration of food relevant elements at the different levels within Dahlberg and Krug's (2008) model.

In 2023, the lead author conducted 26 in-person, semi-structured interviews on veganism and wellbeing. Akin to other studies of veganism (Bertella, 2020; Greenebaum, 2012a), the lead author informed participants that the lead author was vegan. Interview recruitment was through convenience and snowball sampling. This research was based out of Waterloo Region, Ontario, and participants were drawn from the surrounding region. Recruitment posters were placed in public locations throughout the cities of Waterloo and Kitchener, Ontario and on local vegan Facebook pages. To be eligible for the study participants must have been aged 18 or older, and have been vegan, according to The Vegan Society's (2022) definition, for at least one year. The interviews lasted between approximately 30-120 minutes. During and after the interviews the lead author took notes on their initial impressions and reflections of the material shared by the participants.

Interviews were transcribed verbatim and reflexive thematic analysis (RTA) (Braun & Clarke, 2022) was undertaken. Once transcription was completed and all transcripts checked against the audio recordings, the lead author began to read and reread the transcripts for the purpose of gaining an in-depth familiarity with the data and taking notes on data of interest and potential analytic leads to follow. An inductive approach to RTA was taken. Using NVIVO for data organization each interview was coded. There were two rounds of coding and codes were revised throughout the process. Following this the codes were printed on paper, then manually arranged into themes.

3.4 Results

The participants ranged in age from 18 to 63, averaging 36. The largest sub-category of participants was straight, white, women, who had completed an undergraduate degree (n=9), but

these participants ranged in age. Among the other participants six were men, four were queer, and five participants were a Person of Colour and/or mixed-race (Refer to Table 4).

Table 4

Participant demographics

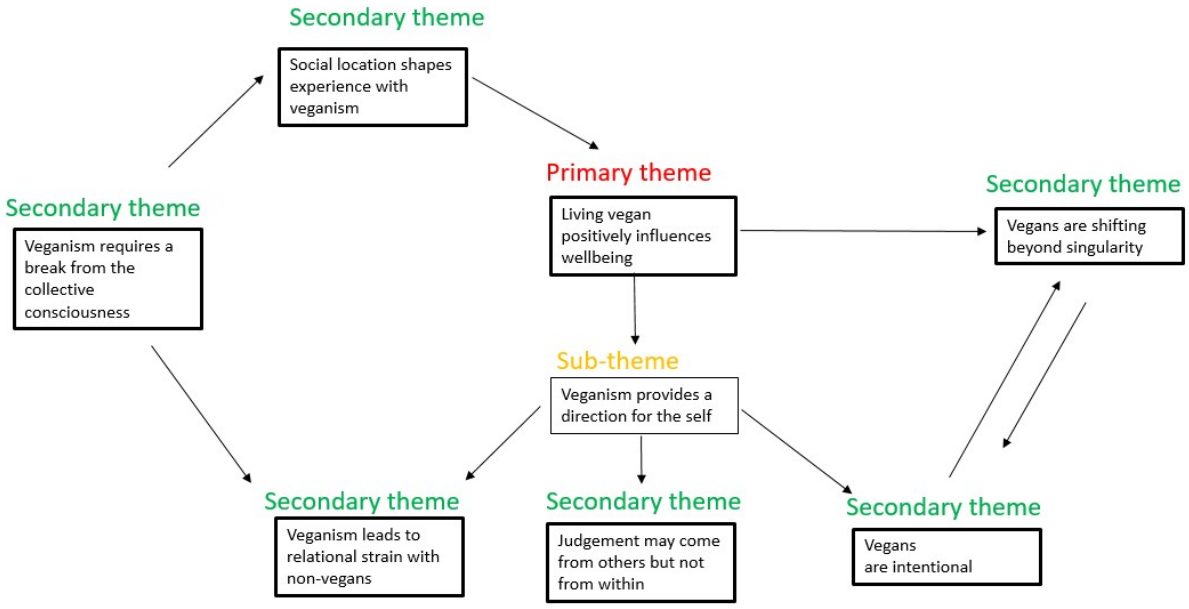
Demographic Item	Specific Category	Number of Participants
Gender		
	Woman	20
	Man	6
Sexuality		
	Heterosexual	22
	Queer/2SLGBT+	4
Race		
	Person of Colour and/or Mixed-race	5
	White	21
Highest Level of Education Completed		
	Some or All of High School	7
	College	4
	Undergraduate Degree	6
	Graduate Degree/Professional Degree	9
Currently a Student		
	Yes	10
	No	16
Household Income Level		
	Low	6
	Medium	16
	High	4

Most participants (n=20) were vegetarian before becoming vegan. The average duration of vegetarianism was 8 years, ranging from 0.5-25 years. The average duration of veganism was seven years. In addition to ethical motivations for veganism, many participants reported environmental and health motivations.

The analysis resulted in one primary theme, with one sub-theme, and six secondary themes. A diagram was developed, after analysis, through reflection upon themes and their quotations, to illustrate how the themes and sub-theme are interconnected (Refer to Figure 3).

Figure 3

Interconnected Themes and Sub-theme



3.4.1 Secondary Theme: Veganism Requires a Break from the Collective Consciousness

Within normative Western thought humans have dominion over animals. The participants transformed their worldviews by adopting the philosophical stance that animals are not to be used for human purposes. This split in philosophy had wide reaching consequences as animals are commonly used in Western society for food, clothing, and entertainment among other

purposes. Therefore, to become vegan required many shifts in engagement with intellectual concepts and material goods.

Growing up participants were taught animals are commodities but in developing a vegan worldview participants came to see animals differently and appreciated each animal as a sentient individual. Participant A explained:

> *Well, I grew up with what I knew. But once you get to know these animals and you get to understand that they're not just a piece of meat on the table they actually feel, they love, they hurt, you know* […] *and then your parent comes in or something and just takes an animal, oh look what we're having for dinner tonight.* (Participant A)

Breaking from the collective consciousness influenced the participants' relationships with animals through development of a new way of relating to animals beyond speciesism.

> *So, I wish people knew about, about the sentient aspect of animals. They have feelings, they have fear, they have families.* (Participant B)

While as non-vegans the participants once lived behind a "veil" (Participant C) with a different conceptualization of animal sentience, the vegan worldview led the participants to move from a complacent state of acceptance, to one of great sadness over animals' treatment and experience.

The participants identified animal centric nutrition information as one way in which the narrative of the collective consciousness is transferred:

> *[...] the messages we learn about a meat-based, way of eating are so embedded, and I'm saying like as a white European raised person, that's not everyone's experience, but um we learn right, meat, vegetable, potato, that's what we learn right. So, I feel like I can't take that out of that sorta conversation in some ways?* (Participant D)

Participant E emphasized the pervasiveness of this animal centric nutrition information.

> […] *as young as I can remember it was drilled in our heads that you absolutely needed 2-3 glasses of milk if you wanted to, to basically grow up, if you wanted to grow strong bones. Things like that, so certainly when you have that same information repeated over, and over, and over again. And your parents had the same information drilled over and over again, and all your friends and all your family members had the same exact misinformation over and over again, it definitely makes it extremely difficult to change your perception on that, so that certainly can be a big barrier.* (Participant E)

This messaging ties one's maintenance of health to the consumption of animal products suggesting that refusal of animal products will jeopardize health.

Nutrition information is transmitted through different pathways, but several participants explained how the normalization of animal use was maintained partly due to government policies and the neoliberal environment of Western society:

> *I mean, I might circle this back around back to capitalism. There's a lot of money in the industries that we're you know, very much against. Like in dairy and in*

> *meat, there's a lot of money and a lot of power there. And versus, a mostly grassroots movement. That's a real challenge and barrier when there's such a significant power imbalance even yeah, you look at, what countries consume the most meat and dairy and around the world and its again countries that have a lot of wealth and systemic issues with um like, power and like their like military power even* […]. *And lots of people in the world just want to have this lifestyle of like, well I can have whatever I want, and I can consume whatever I want because I can. And then that influences just all the countries that are developing and trying to build themselves and I think that's a real barrier. It's just like the whole, you know, the whole system of where we're at in, yeah (laughs).* (Participant F)

The participants felt that when government policies are in place that normalize and condone animal use, to become vegan involves a break from the collective consciousness of larger society.

As explained by the participants the cultural discourse of dominion extends beyond animals to the broader natural world. This is another area where vegan philosophy diverges from the mainstream worldview according to many participants. The participants explained that their interest in the protection of animals extended beyond agriculture to protection of the global environment. Thus, environmentalism and veganism were interconnected for most of the participants. Participant G linked dominance over the environment to systems of oppression that they framed as at odds with veganism.

> *Being brought up by people who don't think that way, it is very hard for a lot of them, um, a lot of people, that I talk to, you know they've been brought up with*

> *that mindset of, sorta that macho mindset of like, we can sorta just do whatever we want. We can go chop down a bunch of trees, like, we can rip up the Earth and do whatever we want. It's just like that whole patriarchal mindset, I see that colonizing mindset, we're superior and like getting people to change that mindset I find very challenging.* (Participant G)

Beyond the intellectual realm, many participants faced ethical concerns over material goods. Some participants saw how consumer choices exist within broader systems of power and oppression, including human oppression, and opted to reduce or shift their purchasing habits in an attempt to minimize harm. This was a way to engage less with systems that rely on, and reinforce, the collective consciousness.

> *There's lots of ethical concerns with products that have nothing to do with animals. [...] These are vegan foods but I mean the problem is that the overarching problem is that we live in a world of exploitation where people are not treated with dignity. Human and animal alike. So, shifting your mindset to one that is thinking about the dignity of all individuals, human and animal alike, is the answer there, ah, but it's a very complicated answer because it's a world in which we want to pay low prices for things that are used to being artificially cheap because we don't treat people with dignity. So ultimately it comes down to capitalism and it's just a bigger problem.* (Participant H)

Finally, the split from the collective consciousness was more pronounced because, as reported by participants, non-vegans viewed veganism as undesirable.

3.4.2 Secondary Theme: Veganism Leads to Relational Strain with Non-vegans

Shifting worldview can lead to division, which may result in conflict. For many participants, veganism led to strain within relationships to non-vegans, As explained by one participant, "*I definitely got some social flack for it, it definitely lost me some friends, it definitely made me some enemies"* (Participant I). As the participants explained, at the most neutral level non-vegans may not appreciate how important veganism is to vegans, but with more insidious manifestations non-vegans may tease, bully, or "emotionally blackmail" (Participant J) vegans. The participants experienced social friction, leading to feelings of frustration with non-vegans amongst the participants. Frustration was felt at the societal level when participants witnessed societal inaction and apathy on issues of injustice towards animals, the environment, and other humans.

> *Yeah, I mean it is definitely frustrating, or sorta that despair type of feeling, when you try to explain it and people brush it off they don't want to hear about it. They just don't care. Or they are aware of it, they just value their tastebuds more than that life of the animal and the environment as a whole and their own health, as well as, the human rights components.* (Participant E)

Cultural challenges caused internal discord for vegans, and presented challenges when interacting with, and relating to, family members. Some families resisted or misunderstand veganism. Most participants identified irrespective of social location culture was a challenge. None of the participants' cultural backgrounds were vegan. Though vegetarianism may be considered closer to veganism, among the South Asian participants with vegetarian backgrounds two participants described challenging cultural experiences.

> *So, for them and again in India food is a very integral part of the culture, you express love through food, so when I refuse to have the food that my family has made for me, that is a sign of major, major disrespect or it just communicates a very negative message, and when you blame it on veganism. Oh, I'm doing this because I'm vegan, they just associate those negative feelings with that whole movement.* (Participant J)

As such, relational strain came from tensions held by the participants and was also directed towards participants.

3.4.3 Secondary Theme: Judgement May Come from Others But Not from Within

At times other vegans judged the participants on their veganism. In particular, the participants identified challenges with online expressions of veganism, wherein sometimes vegans created an intolerant online space. The online vegan community was reportedly judgmental of other vegans whom they deemed inadequate. Participants noted that claims of vegan inadequacy came for a variety of reasons including not participating in protests or vigils, accidentally ingesting non-vegan food, or transitioning to veganism too slowly. Some of the participants had experienced judgement of their actions while others had witnessed judgement in online spaces. Consequentially, two participants explained they worried the lead researcher would consider them insufficiently vegan. In addition to this active judgement of vegans, some participants concluded that vegan influencers could cause harm, through embodying an elite veganism, accessible only to white and/or wealthy individuals, or showcasing unattainable/unhealthy dietary practices representing a more passive manner of transmitting judgement. However, the online judgement that participants noted was in direct contrast to the approach that the

participants reported taking within their own veganism. On an individual level, the participants explained that there is no perfect veganism.

> *That there is no one size fits all vegan. That there is not perfect vegan, and also that people are coming to veganism from all different backgrounds, and I think just like anything else, we need to remember that you don't know what someone's going though, so treat people with kindness. And wherever they can meet you at in terms of being vegan or not vegan I think we all just need to be a little bit more compassionate to each other.* (Participant K)

This acceptance was related to the inescapability of life within the current neoliberal system so that participants felt they had to choose amongst levels of harm, trying to find the "lesser of two evils" (Participant L).

Despite the negative associations with online veganism participants seemed to personally experience few harms from this. However, there were concerns that a negative attitude could drive non-vegans away from veganism because of a perception of negative wellbeing consequences to the self or others.

3.4.4 Secondary Theme: Social Location Shapes Experience with Veganism

The participants commonly mentioned privileges they experience within their own lives that have helped facilitate their veganism. Privilege mentioned by the participants stemmed from race, socioeconomic status and living in/nearby to an urban, Canadian setting of moderate population size.

> *I would say it's definitely a position of privilege being able to choose to be vegan. Again, being in Canada and Waterloo that's already a position of privilege. Um, so yeah I would say at this point I don't think it is, but I think we're heading in the right direction. But that's not even including like racial factors like I don't know how a BIPOC [Black, Indigenous, Person of Colour] understands veganism because I'm not BIPOC. So, I can't have that experience I can't know how they feel and I don't want to make any assumptions or force my experience on them, yeah.* (Participant K)

Participants did not advocate for imposing veganism on people and cultures but instead saw the federal and provincial governments as having roles in public education on animal agricultural practices, stopping the subsidization of animal agriculture, and increasing the affordability and accessibility of plant-based options. Several participants noted that they would not expect veganism of Indigenous Peoples and viewed such an expectation as an imposition and continuation of colonization. On an individual level, including for members of their own families, the participants would not impose veganism with some stating veganism had to be an individual level choice from the heart. The participants suspected a heart-driven choice would lead to an enduring veganism.

While culture was mentioned earlier, another way that social location shaped vegan experiences was related to gender and sexuality. Queer identified, and some non-queer identified, participants mentioned that veganism may be more common within the queer community speculating that experiences of discrimination and/or oppression could lead to empathy for animals who are oppressed through speciesism and non-veganism.

> *I think we are already on the fringe, and we already see things differently than other people do, and if we already, going against the grain so to speak. It's easier for us to open our eyes and see other things that are going against the grain. You know we're able to see the human rights abuses, with queer people. So, I think it also makes it easier for us to see the animal rights abuses. Just because our eyes are already opened. Whereas straight people are more privileged.* (Participant L)

Whereas, the participants made straightforward linkages between queer identity and veganism, participants had complex thoughts and experiences relating to veganism and gender. For some veganism and gender were directly connected. As one woman explained:

> *Unless they keep asking me, 'Well, why don't you eat cow's milk it's so natural'. I'm like, cause it's stolen. […] We're the only species that eats stolen breast milk and that's what it is. And I'm a mother. It's a very feminist thing, it's all exploitation of the female sex when it comes to animal farms, right.* (Participant B)

Many participants acknowledged gender stereotypes are outdated but nevertheless thought societal expectations and people's individual experiences of their own gender shaped vegan experiences. Participants reported that being a woman was more expected and more normalized in the societal perception of veganism, whereas the participants who identified as men oftentimes surprised people with their veganism. In discussing gender and veganism, one participant who was a man said:

> *They'll automatically think because you're vegan you're not as tough or manly or whatever it may be and then I think that causes like a conflict in their mind with*

> *what their perception of a male is. Or, or like a manly man type of thing. Which then I think that just leads to frustration on their part. So, I think because of that, as males probably have it maybe a little bit harder, just because of that, I guess, stigma.* (Participant E)

Gender stereotypes were sometimes seen as accurate by participants, but some participants mentioned how gender roles and expectations are changing. Many participants said they could only speak for their own gender experience, and while recognition of gender beyond the binary was acknowledged, it was not explored. While some participants only knew of vegans who were women, they explained they felt veganism should not be associated with one gender over others.

3.4.5 Primary Theme: Living Vegan Positively Influences Wellbeing

Wellbeing benefits occur primarily at the individual and societal levels. One participant summarized their perception of the benefits of veganism, saying: *Physical health, mental health, spiritual health, ethical alignment* (Participant D). In their rationale for veganism numerous participants mentioned, what one participant termed specifically, the "win-win-win trifecta" (Participant M) meaning that veganism was good for the environment, animals and people.

> *I think for me it's doing your best to not harm others be it people, or person, or animal with the things that you're consuming. […] I like to throw like a little intersectionality in there. And make sure like, even if I'm eating vegan food, that it's also like ethical vegan food to the best of my ability. Yeah, that would be my, (laughs) my idea.* (Participant F)

According to the participants, one needs to be mindful of vegan choices to reduce harms but veganism improves physical health, is less damaging to society, and results in less human rights abuses. Participants believed these abuses included unhealthy/unsafe working conditions and even human trafficking.

At the individual level veganism was noted to frequently influence the mental and emotional wellbeing of participants. Beneficial feelings included self-love, self-respect, and self-efficacy. As summed up by one participant:

> *But in general, ah, again I think it all boils down to the nice feeling of ah, the nice feeling of thinking that, I took a choice towards something that I think is right. That makes me much more peaceful rather than, rather than before.* (Participant N)

The participants simultaneously reported experiencing hedonistic pleasure from vegan food.

> *[…] like I love, I love all the plant foods I've been eating and I'm really happy with them so.* (Participant O)

> *[…] like who knew, nutritional yeast, that was awesome (laughs). It's taught me a new way of cooking, like it I cook to satisfy more than just our nutritional needs but our love of food more or less.* (Participant P)

Several participants explained they enjoyed cooking and experimenting with new recipes and trying new vegan foods.

> *I feel you know, there's there a variety of vegetables, and fruits and beans and nuts. There's so much. It's made me super creative because you know with the so-called limitations that I have I am able to fill my stomach. I am able to create, I think, appetizing food. I hope! (laughs).* (Participant Q)

A new level of openness towards food and of the mind was reported leading to positive wellbeing.

> *So, I feel much more inclusive. […] I don't understand their differences, but I understand that they have differences, I don't always understand what they are. Um, you know I've taken courses in Indigenous history. I'm like, the world has opened up for me and vegan, and yoga and veganism were the gateway for me.* (Participant P)

Participants reported this led to personal development and greater responsibility as a global citizen.

Several participants developed confidence which they noted increased as their age and length of time vegan increased. These positive wellbeing changes extended to physical health, which led to positive feelings of empowerment, through being a thriving vegan athlete in sport, for example.

3.4.6 Sub-theme: Veganism Provides a Direction for the Self

To participants, veganism facilitated the important alignment of one's values and actions.

> […] *ethical consistency is a big thing for me. So, the idea of having a value and then thinking of how it like manifests in your life in different ways. So, veganism is*

> *just the most ethically consistent in terms of how I want to be in the world.* (Participant H)

This ethical alignment was described as improving mental wellbeing and even enhancing the clarity of one's thoughts.

Though veganism brought the participants joy, they also declined some hedonistic pleasure to value animal lives above their own enjoyment of animal products:

> *You know why is my, why is my tastebuds or my clothing choices, or whatever, why is that more important than their life?* (Participant L)

Participants felt veganism contributed to their life purpose.

3.4.7 Secondary Theme: Vegans are Intentional

Participants preserve and promote veganism through specific tactics, situations, and at different relational levels. For example, a few participants noted how their originally "militant" stance to veganism softened with time, without their convictions diminishing. The participants felt they were intentionally taking responsibility by becoming vegan, but they expected others to make their own choices. At the same time, they recognized the limitations of individual choice.

> *When we talk about veganism a lot of the time I think of the climate activist situation where, what is it, 10 companies are doing 90% of the harm, but individuals are being asked to do so much themselves. And I'm always of the mindset that if you can do little things, do the little things, like it does not hurt to do those things. But also, I don't feel like you should feel this intense guilt about*

> *every single little thing that you do, because you are only one person in the whole equation at the end of the day.* (Participant K)

Regarding intentionality, the main relationship level strategies adopted by participants were those of picking one's battles leading to a quiet veganism, and gentle promotion of veganism. Quiet veganism was used to maintain relationships and normalize veganism.

> *And I think the biggest stereotype that I hear about is the idea of the preachy vegan, the idea they're just gonna shove it in your face and they gotta let you know about it. And the fact that they sorta have to discover it in that way I think is the biggest source of surprise. Oh, you didn't tell me as soon as I met you?* (Participant I)

The quiet vegan participants were not ashamed of veganism but managed how they presented it to minimize social friction.

> *I wish I could tell him like, you know, they take the babies away from the cows right, but yeah you just can't have that discussion, right. I just take the long view and just kind of sorta just pepper in little bits of veganism here and there without it becoming a big deal I guess.* (Participant O)

The gentle approach also included cooking flavourful vegan meals for friends and family.

> *Now it's just like we eat for sustenance, we enjoy our food, there is nothing fancy about it. If I have someone coming over or we're going over to someone's house I definitely get fancy.* (Participant R)

The actions the participants took were strategic, and they managed how they approached conversations. Some took a more informational approach, whereas other participants sought to entice people to become vegan.

> *But now I just try to lead by example, and just hope that other people will follow in my footsteps as opposed of making them walk in my footsteps. Instead of dragging them with me you know try and get them to come willingly with me. Drop the vegan treats on the ground, you know, follow me! (laughs).* (Participant L)

Humour was also used by some as a communication strategy with non-vegans.

At a community level the participants were involved in everyday activism, which were often non-confrontational, including public education through activism and financially supporting vegan charities. The participants hoped that through these actions more people would embrace what the participants felt was a collective responsibility to move towards veganism, and a human societal responsibility to protect the natural world.

> *Oh boy! Um, I think, to me the biggest thing is and I always say these things without trying to sound like it is some insidious plan, or some conspiracy theory but like materialism and capitalism is a big machine. But it's a machine we created and elements of that machine benefit from people not being vegan amongst many, many, many, many other things. But I think if people could understand that they have more ability to influence that, that system through their own choices that would be something I think that, that's, that's a big one (laughs).* (Participant D)

The participants felt collective action could challenge how corporations operate.

3.4.8 Secondary Theme: Vegans are Shifting Beyond Singularity

Although the participants experienced the initial break from the larger society, through their actions and those of other vegans many are building a health promoting community or network. Several participants explained the development of an inclusive community could help normalize veganism societally. Transitioning with others helped some participants on their journeys. Perhaps due to the intentional approaches participants took, many participants reported that their primary relationships with non-vegans were presently unaffected by veganism. In some instances, this was because non-vegans became more accepting of veganism over time.

Outside of the difficult online spaces presented earlier, participants felt that the community was inclusive. One participant explained how vegans seek to reduce harm and therefore would be less likely to judge people on characteristics such as age, gender, race, sexuality, or economic status. Another explained their own experience:

> *I'm a brown person in a white country now, or a country of immigrants, whatever. Since I am in a country where veganism is accessible, [...] Inclusive, I mean sure there are no barriers based on like race, or gender, or sexual identity anyone can join the movement. It's just how accessible those resources are to you based on your current location I would say.* (Participant J)

Another participant explained how they were actively trying to learn from a diversity of vegan perspectives.

> *So, I personally am intentionally trying to diversify my own space. In that vegan space that I'm in. […] don't know what the general public would still think of when they think vegan, but I dunno, in my own space I'm thinking of it as more diverse than it was before. Not that those people weren't there already. But I don't know, visibility for People of Colour* (Participant F).

However, some participants did mention there could be socioeconomic or geographic elements that make veganism more difficult, which may inhibit participation.

Although there was hesitation around certain online vegan communities, many participants participated in, or at least followed, local vegan social media pages. Others connected in person, sometimes through activism.

> *Definitely the community, I don't think people realize like you can make friends like just through it so easily because everyone just wants to know each other's experiences and just yeah work on it together and see how as a community they can make change.* (Participant S)

Overall, the participants were also open to health veganism as a positive change that a person could take, that while not ethically motivated would still result in reducing harm to animals, the environment, and that may have health benefits.

> *I think people can come to veganism through any pathway, but then it grows the movement and the popularity. So, if that, if their initial thought isn't about the wellbeing of the beings that are being you know, murdered and tortured, but it's their own health and wellbeing, but they've made their journey there and then*

> *they will grow in that. And then it will still bring around some of the same results. […] Right so there's room for growth and learning. Yeah, and just recognizing people have different journeys.* (Participant G)

The participants believed that plant-based eating for health could serve as an entry point to learn about and later become interested in veganism for ethical reasons. As the vegan community grows and embraces new people, the participants have noticed that veganism is increasingly accepted within the larger society.

3.5 Discussion

The barriers faced by participants were relational. However, veganism enriched the lives of the participants through enhanced mental and emotional wellbeing, perceptions of improved physical wellbeing, an expansion of the mind and palate and through providing the direction of the participants to put their values into action within their lives.

The participants in this research took an individual choice to become vegan because of their social and ecologically justice-oriented positions towards the world. The ramifications of their choice to become vegan occurred at different levels, from the individual, to the relationship, to the community, to the societal. In this section we will discuss the results in relation to their relevance to each section of the SEM.

3.5.1 Individual Level

In becoming vegan, the participants experienced an individual level split from the collective consciousness, found also in the work of McDonald (2000) and Hirschler, (2011). The initiation phase was the time when vegans faced the greatest challenges (Hirschler, 2011) as described by

participants in this research. McDonald (2000) describes how vegans must "reintegrate themselves into society. Although at times they felt like removing themselves from society" (p. 17). The participants faced a learning curve accommodating their new worldview and concomitantly shifting dietary and lifestyle practices.

Despite the challenges faced, the participants experienced multiple benefits from their veganism with increased mental and emotional wellbeing being salient. This is relevant given that the effect of veganism on mental health has been debated in the literature. The participants in this research were socially and ecologically justice minded. This orientation may help to enrich their experience of veganism because they feel rewarded for living in alignment with their values. Alignment of values and actions has been found to be of importance in other research of vegetarians and vegans (Hirschler, 2011; Romo & Donovan-Kicken, 2012). The perspectives of the participants in this research are salutogenic and could contribute to an explanation of vegan mental and emotional wellbeing that has two differentials. A more strict and judgmental veganism, which may be regarded as more necessary to achieve "authenticity" (Greenebaum, 2012b) may yield fewer positive wellbeing outcomes compared to a more embracing vegan approach which may yield more positive wellbeing outcomes, whilst still retaining the ethos of The Vegan Society's (2022) definition of veganism. Though the participants embrace the inherent complexity of living in Western society, they reject an idea of a perfect veganism which may help them in their maintenance of veganism. This aligns with the perceived limitations of ecofeminism, in that there is no way to achieve 'perfection' (Warren, 2000).

For the participants veganism leads to personal enrichment through expansion of the mind and palate, contrasting with the widely held belief that veganism is a restrictive diet. Furthermore, the results support earlier work that suggests veganism leads to one feeling they have found a place

of belonging (Costa et al., 2019; Hirschler, 2011). However, it was also important to explore the individual participants' experiences with veganism and their social identities, such as gender, sexuality, and race.

It was often difficult to engage participants in this research to talk about gender, reminiscent of how Greenebaum and Dexter (2018) described their participants, who were all men, as thinking of gender as "passé" (p. 341). Similar to past research on veganism, the majority of participants in this research were women. Parker (2012) theorized that women who were participants in her research, undervalued the subject of her research (gender and food work) because food work is often considered women's work. The participants in the current research were enthusiastic about the lead author initiating this research on veganism, but Parker's hypothesis could partly explain the hesitancy by some of the participants to consider veganism as having a relationship to gender. As participation in veganism is dominated by women, veganism could be devalued within the greater patriarchal society. Therefore, the participants may be muting the gendered aspect of veganism to enhance the normalization of veganism and to improve its legitimacy. One participant who was a woman, explained how men would often think her veganism was cute and therefore devalue its significance. Simultaneously, women's veganism may be more accepted because it is perceived as less threatening.

The speculation by queer and non-queer participants that queer people may be more likely to be vegan owing to experiences of oppression within society, mirrors Michalak et al. (2012) proposition for why people with mental disorders may be more inclined to become vegetarian, in that people who have experienced suffering wish to prevent others from suffering. The participants' belief that veganism was more common within the queer community reaffirms

Stephens Griffin (2015) call for more research on the intersections of veganism with 2SLGBTQ+ experiences.

While the interview guide did not directly ask about race and veganism, questions about whether veganism was inclusive enough for everyone/if anyone was left out of veganism were asked. The participants mentioned the potential for people to be economically or geographically unable to adhere to veganism, as in Greenebaum's (2018) research. Within Greenebaum's (2018) study of race and veganism, several participants did not believe race was important to consider regarding veganism. However, constructing veganism as post-racial can lead to People of Colour becoming alienated from the movement and denies the harms that can be associated with "vegan" foods. (Harper, 2010). In this research, one participant of Colour did suggest future research could focus on vegans from India, and another that veganism could be more welcoming to newcomers. This suggests that race remains an important structural category to foreground in future research, even if many participants thought veganism was inclusive to all.

It has previously been argued that vegetarians and vegans experience hedonic joy from their food consumption (Cole, 2008; Crimarco, 2019; Greenebaum, 2012a). The results of this research advance this theory and support the results of Bertella's (2020) research on veganism which indicated that vegans experience both hedonic and eudemonic wellbeing through their vegan practices. Participants experience hedonistic wellbeing through a joy of cooking, and experimenting with new foods and recipes, as well as experiencing pleasure when eating vegan foods they regard as delicious. As was mentioned in Bertella's (2020) and Twine's (2017, 2018) work, and was frequently described by the participants within this research – veganism led to an expansion of the participants' palates, including through consumption of foods from cultures

around the world. Confirming Cole's (2008) assertion, participants in this research describe creative cooking practices and recipes have stemmed from their veganism.

The participants believed the benefits of their veganism extended beyond the personal level to having benefits at the community and societal levels for humans, animals, and the environment, the "win-win-win trifecta" (Participant M). This rationale is often given as the motivation for following a vegetarian or vegan diet (Fox & Ward, 2008; Greenebaum, 2012b; Jabs et al. 1998; Twine, 2017). The "win-win-win trifecta" demonstrates a level of systems thinking. This could be one example of how veganism has expanded the participants' minds and worldviews, but it may also be a way that veganism can promote health. Critical reflection on actions led participants to make the choices they felt were best for them. This did not mean there was advocacy of flexibility in adherence to veganism, but rather an approach that sought to do the least harm possible.

3.5.2 Relationship Level

As the participants transitioned to, and maintained, their veganism, many found their relationships with non-vegans became strained. This has similarly been described by Twine, (2017). This research aligns closely with Cherry's (2014) finding that the greatest challenge for a vegan is navigating relationships. However, the participants took an active role in establishing an image of veganism that was less threatening to non-vegans. In many instances, relationships with non-vegans improved with time (Greenebaum, 2018; Twine, 2014), however some participants experienced persistent distance between themselves and the non-vegans in their lives. Within this research the participants identified feelings of frustration which primarily emerged at the level of interpersonal relationships, stemming from interactions with non-vegans. Bertella (2020)

reported that "[m]ost of the challenges reported by vegans concerned social eating" (p.11). For the participants in this research, though most of the challenges faced were social, they were not limited to circumstances surrounding eating.

To be a quiet vegan is a wellbeing strategy many participants adopted which they believed would lead to smoother relationships with non-vegans, especially in the short term, and may open the possibility for gently introducing veganism to non-vegans after time has passed, and relationships between the vegan and non-vegan have developed or rebalanced after the vegan transition. The participants may be quiet vegans for preservation of social relationships and status (e.g. vegetarians in Romo & Donovan-Kicken, 2012). The loss or breakdown of relationships could cause negative mental or emotional wellbeing outcomes.

Despite increasing cultural visibility, vegans may not speak openly about their veganism as an attempt to maintain a social status quo (Twine, 2014). Bertella (2020) identified that their vegan participants often tried to "blend in" (p. 12). This mirrors the quiet veganism approach taken by participants in this research. In contrast, Greenebaum, (2012b) attributed the quiet veganism of her vegan participants as not wanting to be judged for living incompletely vegan (for wearing leather shoes, for example). Hirschler, (2011) noted people developed a quiet veganism, and found the non-vegan world became easier to navigate with time.

The quiet vegan strategy is reminiscent of vegan small business owners in Australia who perform quiet activism for the economic welfare of their businesses (McGregor et al., 2023). However, the small business owners avoided the label of a "vegan" business, choosing the label "plant-based" instead, because they thought vegan would be a polarizing term. This is where the similarities diverge as for the vegan participants in the current study veganism was seen as a

source of health and wellbeing. The participants in this study were concerned with social justice and ecological justice, and the majority described how these justices are interconnected. The principle of doing the least harm possible is a driving ethic for the participants and extends to both the human and natural world. However, quiet veganism extends to the individual vegan as a form of self-protection. This builds on Pottinger's (2017) definition of quiet activism "as a form of engagement that emphasises embodied, practical, tactile and creative ways of acting, resisting, reworking and subverting" (p. 217) because participants perceive that a quiet veganism can be beneficial for the self and others.

Several participants reported improved physical wellbeing since transitioning to veganism. The potential, or realized, health benefits of veganism were frequently commented on by participants but did not appear to have the primacy of importance as reported in Bertella's (2020) research. Rather than being a motivating factor to maintain veganism, often participants seemed to use their own physical health to try and convince loved ones of the benefits of veganism. The participants' experiences with veganism were political because they were motivated by animal ethics but adopting a healthism framing to their veganism, could help normalize veganism within the cultural discourse. So rather than being stigmatized for ethical veganism, participants may gain social capital through simultaneous embodiment of veganism as a healthy and responsible way for an individual to eat. Embracing healthism could have the effect of entrenching systems that many participants are trying to dismantle, as their protest transforms into them into ideal neoliberal citizens if they are viewed as taking individual responsibility for their health (Crawshaw, 2012).

3.5.3 Community Level

Seeking out vegan communities can mitigate challenges presented by adopting the minority worldview of ethical veganism. Indeed, many participants felt an instant connection with other vegans as in Cherry's (2006) research. Although the participants sought and received social support from other vegans, there was some danger in online communities not providing the support or validation that participants needed.

Though social networks appear to be important to most of the participants in this research their persistence as vegans did not seem to hinge on social networks as was found in earlier research (Cherry, 2006; 2014). This could be explained by the alignment of values and actions participants identified, the proliferation of vegan materials on media sharing sites such as YouTube, and the increased cultural visibility of veganism in recent years.

The results of this research do not align with previous research that found vegans judge health motivated plant-based eaters negatively, in addition to judging themselves negatively when they are unable to maintain vegan "purity" (Greenebaum, 2012b). In contrast to this earlier work, the majority of participants in this study expressed that plant-based eating was a positive movement and eating a plant-based diet may eventually lead those who are otherwise motivated by health to explore vegan ethics. Individually, participants explained there is no such thing as a perfect vegan. Many expressed how within modern society it is not always possible to know whether a company is vegan along its supply chain, whether a material good is vegan friendly, and whether the vegan friendly good is the one that does the least harm to humans, animals, and the environment. Therefore, the participants did not expect perfection of themselves or others.

3.5.4 Societal Level

Several participants identified systems level barriers that could prevent a person from being able to go vegan. Many participants expressed how a reorientation of agricultural subsidies would help to dismantle barriers related to socioeconomic status. While cultural challenges were something participants faced, the participants did not frame culture as a barrier to adopting veganism. The barriers participants often identified others may face, tended to be socioeconomic and geographic. Thus, veganism extends beyond the self and personal responsibility through the recognition of structural barriers for other people. Citizens must expend greater effort to live according to expectations of healthy choices and behaviour (Kickbusch, 2007). The citizens that can live healthfully are most often those that have preexisting privilege. Most participants in this research identified having a mid-level income, and many commented on their own experiences of privilege which they framed as resulting in reduced personal barriers to veganism.

The participants who identified that they lived on a low income (n=6) more often also identified as white (5/6). The majority of the mixed-race and/or participants of Colour (4/5) identified that they lived on a mid-level income and two specifically mentioned that money had not been an issue within their lives. Therefore, though participants were oppressed through structural level racism, they were not necessarily also socioeconomically disadvantaged. The researchers Johnston et al., (2011) whose research took part in southern Ontario, Canada, found that "participants from marginalized socio-demographic and ethnic backgrounds appeared to have less access to this repertoire [of ethical eating]" (p. 311). This is important to consider the ways that privilege manifests in a person's life. The only participant that faced oppression based on all of gender, race, disability, sexual orientation, and socioeconomic status was the only participant who described making use of a food bank. This participant appeared to be working incredibly

hard to minimize their food expenses. That this participant was able to maintain their veganism may have been a testament to their strength of conviction, creativity and individual personality factors. This participant's experience is a reminder of "the need to account for multiple grounds of identity when considering how the social world is constructed" (Crenshaw, 1991, p. 1245) and that each participant's experience with veganism differed.

Greenebaum (2016) wrote that veganism can address structural issues if vegans consider the well-being of humans, and issues beyond animal rights. This consideration of multiple levels aligns with ecofeminist philosophy (Gaard, 2011). However, Buttny and Kinefuchi, (2020) suggest that in trying to maintain their social relationships and wellbeing vegans sabotage the ability of veganism to address structural problems. This happens when vegans strategically frame their veganism as a "individual food choice" (Buttny & Kinefuchi, 2020, p. 580), as did many of the participants in this study with their quiet veganism. The participants were trying to be oriented to social justice, and therefore not proposing universal veganism. In doing so their individual level veganism may become more tolerated by those in their social network but it can simultaneously obscure injustice in the food system at the level of non-human animal use and treatment, and human exploitation.

Embracing "health vegans" and working to normalize veganism, may promote a broader negative and limited understanding of veganism amongst non-vegans. For example, Pirani and Fegitz (2019) analyzed popular "vegan" vloggers using a feminist intersectional lens and argued that the vloggers were ideal neoliberal citizens who were pursuing health through a "diet of avoidance" (Pirani & Fegitz, 2019, p. 60) whilst promoting the accessibility of veganism to all and ignoring the structural barriers to eating a healthy diet that many people face. Notably, through the evidence presented by Pirani and Fegitz (2019) the vloggers analyzed were primarily

health driven so they would be more aptly classified as plant-based eaters, rather than vegans. The results of this research contrast with Pirani and Fegitz's (2019) work. Not only were the participants ethical vegans, but many were deeply concerned about human rights, they acknowledged their own privilege, and found (due to their privilege) that their diets as vegans were delicious, varied and satisfying. Pirani and Fegitz (2019) classify veganism as a "diet of avoidance" (p. 60), but that is an oversimplification of veganism.

The responses of the participants were at times critically oriented and at other times appeared post-feminist, and post-racial. This may stem from the application of the quiet vegan approach in interactions with different groups. While the majority of the participants were women, attempts were made to explore issues of veganism and gender with all participants. However, this was not a particularly rich avenue for data collection. This lesser engagement with questions around gender could represent a level of postfeminism within the mentality of the participants. However, one must consider that vegans experience bias (MacInnis & Hodson, 2017) when interpreting this outcome. Indeed, Twine has written, "vegan-feminists constitute an especially poignant killjoy position" (2014, p. 626). Therefore, we believe because the participants advocated for social justice, and demonstrated concerns with neoliberalism, they are less likely to be postfeminist in orientation and more likely self-preserving. The lesser engagement with questions about gender could be an example of being a quiet vegan. The participants also seemed to foreground their vegan identity and downplay other identities, such as racial identities. This is important to acknowledge when taking an ecofeminist approach and can help explain perceptions of whiteness in veganism.

Furthermore, some participants may feel it may contribute to veganism as inaccessible if they choose to advocate for things such are fair trade products, which are more expensive and less

available. This reveals the limitations of individual actions within neoliberal systems and points to the necessity for systems change, but at the same time reinforces Harper's (2010) assertion that veganism is not inherently cruelty-free, because not all 'vegan' products are produced without human exploitation. However, the participants acknowledge this and want it changed.

It is important to acknowledge these challenges, while noting they are not faults within veganism but rather within the overarching system of neoliberalism. Many of the participants question the federal and provincial governments and their influence on agriculture and public education. Hirschler (2011) described how some of their participants suggested agricultural subsidies need to be redirected away from the production of animal foods. However, ecofeminism views the individual as having responsibility for their actions (Gaard, 2010) so it is important to retain this element of protest.

Twine's (2014) assertion that, "skills of emotional and social negotiation [...] would be less necessary [for vegans] in a more supporting environment" (p. 631) has relevance to this exploration of the SEM and veganism. It may be, because the consumption of animal products is normalized within society, some community level impediments to veganism became hidden. The hidden curriculum of animal use and consumption is provided to children, for example through animal centric nutrition information. While the school curriculum may be perceived as less adversarial to veganism, through relatively recent modifications to Canada's Food Guide (Government of Canada, 2024). The hidden curriculum may serve to maintain veganism as outside the norm, strengthening the mainstream collective consciousness from within the community level of the SEM. This builds support for an idea advanced by Hirschler's (2011) participants that "educators should consider vegan diets as another form of diversity and use inclusive language and practices." (p. 170). Greater social acceptance of veganism through

education, may also take pressure off vegans to be ‘quiet vegans’, and unlock to potentially transformative potential of veganism as a social movement.

3.6 Limitations

As this research had a small sample size the results are not generalizable to other populations. The percentage of People of Colour who took part in this research was lower than the percentage of People of Colour in the general population of the Region in which this research took place. In the 2021 Canadian Census the percentage of People of Colour in the Region of Waterloo was 27% (Statistics Canada, 2023). Thus, at 19% of participants, People of Colour were underrepresented in this research.

3.7 Conclusion

This research explored barriers to veganism, and the ways in which veganism enriched the lives of the participants. The results indicated a process whereby challenges arose when participants experienced a break from the collective consciousness and became vegans. The challenges faced by participants were compounded or mitigated based on each participants’ social location, however many participants experienced challenges in relationships early on in their veganism. In persisting in veganism participants were able to realize positive changes within their lives. While improved or maintained physical health was often mentioned by participants, the most significant areas of wellbeing were mental and emotional. In providing a direction for the self, vegan ethics helped participants to navigate relational challenges with non-vegans and judgement from some online vegan communities. This direction for the self also instilled in participants a way to approach veganism intentionally in their own lives. This led to many participants being able to shift beyond their individual experience with veganism to an approach which embraced the wider vegan community, plant-based eaters, and non-vegans alike. While

the participants were not primarily health motivated, enhanced or maintained physical health was often mentioned by participants as an advantage of veganism. This emphasis on health could unintentionally marginalized vegans who live with chronic illness or are disabled.

While the participants were oriented towards social and ecological justice and they envisioned veganism bringing more justice to the world, they acknowledged how the privilege they experienced contributed to their ability to choose to be vegan and to maintain veganism. The ability to maintain veganism may also have been a by-product of the participants' view that there is no perfect veganism, and the positive effects on mental and emotional wellbeing participants reported. As the world faces compounding global catastrophes for the participants veganism offers opportunities for remediation that can centre peace and joy.

Through the application of a SEM this research has brought together and built upon past research which explored veganism at different levels from the individual, to the relational, to community, to societal. Future research could explore how socioeconomic status and geographic location influence experiences with veganism.

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Chapter 4: "We are Part of the Natural World just as the Fox or Fish": Veganism and Connection to the More-than-human World Explored through Body-map Storytelling

4.1 Overview

This study sought to explore how vegans with a connection to the more-than-human world experience that world, and how their experiences of the more-than-human world impact their wellbeing. This study used an arts-based method which included modified body-map storytelling, as well as a focus group, and individual semi-structured interviews for data collection. Reflexive thematic analysis was used to analyze the data together. The results showed that the vegan participants in this study (n=6) were ecologically embedded, and while this had negative mental and emotional consequences for the participants at times, their veganism enhanced their ability to connect to the more-than-human world and provided positive wellbeing benefits.

Key Words: Veganism, wellbeing, body-map storytelling, spirituality, connection to nature

4.2 Introduction

Experiences with the more-than-human world (MTHW) influence human wellbeing, and vice versa. While climate change is resulting in pressing health concerns that highlight this reality, ideas of linked wellbeing are not new. For example, it is widely recognized across many Indigenous worldviews that the health of the land and people is interconnected (Big-Canoe & Richmond, 2014; Greenwood & Lindsay, 2019, Kingsley et al., 2009). Some Western philosophers have theorized about how humans are connected with nature with Naess (1973) describing the human self as nature, and Leopold (1949) the human as a component of a larger natural community. In 1986, with the development of the Ottawa Charter for Health Promotion (WHO, 1986) mainstream public health began to adopt the view that human health is tied to the

MTHW. However, the theoretical division between human health and the environment has largely persisted in Western policy and practice (Parkes, 2011).

Despite the conceptual framing of human health being interconnected with nature, in day-to-day living, human disconnection from the MTHW is an element of modern life for most people within Western society (Capaldi et al., 2015; Gatson et al., 2022; Ives et al., 2017; Zylstra et al., 2014). While not all people are disconnected from nature, disconnection has grown for centuries and comes from dichotomies in mainstream Western thought separating humans and more-than-human beings, and society and nature (Banerjee & Arjaliès, 2021; Bruckner, 2018).

There is a concern that people who view themselves as part of the natural world may suffer when the MTHW is harmed (From the "Psychology as if the Whole Earth Mattered" conference, 1990 as described in Roszak, 1995, p.12). Natural or human caused transformations can result in effects known as psychoterratic illness, which can include eco-anxiety, eco-grief, and solastalgia among other concerns (Albrecht, 2006).

There are calls for more qualitative research on human connection with nature (Furness, 2021; Zylstra et al., 2024). Various authors have developed concepts termed ecological embeddedness (Lewis & Townsend, 2015; Whiteman & Cooper, 2000) to explore current nature connection amongst humans. Ecologically embedded people are conceived of as part of their associated ecosystem. Lewis and Townsend (2015) developed their theory of ecological embeddedness from the work of ecofeminist, Val Plumwood. Ecological embeddedness is relevant to public health as it connects human health to the health of the MTHW (Lewis & Townsend, 2015). Yet there is an identified a gap in research on people who are ecologically embedded (Lewis & Townsend, 2015), including amongst different sub-cultures.

Vegans comprise a unique sub-culture, as acceptance of animal use is widespread across mainstream society. Veganism affirms animals do not exist for human purposes, and humanity should develop alternatives to animal products (The Vegan Society, 2022a). Thus, vegans seek to avoid all animal products and the use of animals, for example, in entertainment (The Vegan Society, 2022a). Veganism is also associated with changes to dietary practices through abstention from animal-based foods.

According to analysis by Twine, (2022) Plumwood argues that vegans are not ecologically embedded because they have removed themselves from participation in some ecological process, such as animal consumption. While research has not been undertaken to verify or refute Plumwood's claim, life satisfaction is higher for vegans who have a strong connection to nature (Krizanova & Guardiola, 2021). This suggests value in exploring vegans' connections with the MTHW. Krizanova and Guardiola (2021) noted that qualitative research may help to explain their quantitative results.

Recently there have been calls for more research on veganism (Bertella, 2020; The Vegan Society, 2022b). The Vegan Society, (2022b) has identified a gap in knowledge related to veganism and wellbeing, including spiritual wellbeing and exploration of connection to nature. It is also unknown how ethical vegans may relate to, or mitigate, the experience of psychoterratic illnesses.

4.2.1 Aims of this study

This qualitative study sought to explore how vegans with a connection to the MTHW experience that world and what connections these vegans make among these experiences, veganism, and wellbeing.

The primary method used for this study was a modified form of body-map storytelling (BMST) an arts-based method. Modifications of BMST methods have been widespread in the literature (Esteves Leghi et al., 2022) but BMST projects are often oriented towards social change (Gastaldo et al., 2018). BMST is a mechanism through which to explore embodied experiences (Esteves Leghi et al., 2022). BMST helps to dissolve the mind/body division, another dualism within Western thought.

Bruckner (2018) was the first to use body-mapping to explore "alternative food networks or human-animal relations" (p. 325) and identified BMST as a good method for exploration of the connections between people and the MTHW.

4.3 Methods

This research used a modified approach to BMST based on the work of Gastaldo et al, (2012). Like Gastaldo et al. (2012) each participant created a body-map, however unlike Gastaldo et al. (2012) this was undertaken in a group environment, the body-maps were not co-constructed with the facilitator, and body-map creation was followed by a focus group. The BMST occurred over two days, rather than Gastaldo et al.'s (2012) three hours. The questions used to guide the participants were inspired by Gastaldo et al. (2012) and Lys et al. (2018) and are included in Table 5 below.

Table 5

Body-map Storytelling Prompts

Number	Question
1	At the bottom of your canvas, on the left-hand side please draw "[w]here you come from" (From Lys et al., 2018, p. 1189)
2	At the bottom of your canvas, on the right-hand side please draw how you are connected to the more-than-human world.
3	Near the top of your canvas, beside your head, on the left-hand side, please draw a symbol, or symbols, to represent what comes to mind, when you think about the more-than-human world.
4	Near the top of your canvas, beside your head, on the right-hand side, please draw a symbol, or symbols, to represent what comes to mind, when you think about the state of the more-than-human world.
5	Near the middle of the canvas, on the right-hand side outside of your body-outline please draw what you feel related to the more-than-human world.
6	Near the middle of the canvas, on the left- hand side outside of your body-outline please draw how ecological change impacts you. *Prompt: Consider how you feel in your head/ heart/ spirit/ body*.
7	On the left-hand side within your body outline please draw: How did you feel related to the more-than-human world before you became a vegan? *Prompt: This could be mentally/emotionally/spiritually/physically* *Or, in your head, in your heart, in your spirit, in your body*
8	On the right-hand side within your body outline please draw: How do you feel now that you live your life as a vegan related to the more than human world? *Prompt: This could be mentally/emotionally/spiritually/physically* *Or, in your head, in your heart, in your spirit, in your body*

4.3.1 Participants

Participant recruitment was by convenience sample (Braun & Clarke, 2013); recruitment posters were posted on regional vegan Facebook groups and in public locations throughout the cities of Waterloo and Kitchener, Ontario. Potential participants were screened for eligibility over the telephone. For research participation, potential participants had to be at least 18 years old and vegan, according to The Vegan Society (2022a) definition, for at least 1 year. Participants were also required to affirm they had a strong connection with the MTHW, and they were interested in

creating art as part of the research process. Consistent with other research into veganism, the participants were informed of the lead author's positionality as a vegan (Bertella, 2020). Participants were given a $100 honorarium each day they attended the BMST workshop, and a $25 honorarium for participation in the follow-up semi-structured interview. The BMST workshop was held at the University of Waterloo in the summer of 2023. The interviews were held within two weeks post-workshop and took place at the participants' choice of location. The University of Waterloo Research Ethics Board approved this research (File number: #44397). Participants provided written informed consent for the use of both text quotations and images of their body-maps in knowledge dissemination activities including the publication of journal articles. Consent was collected by the lead author.

4.3.2 Data Collection

There were two main components to data collection. The first was a two-day group BMST workshop for body-map creation. The second was individual, semi-structured interviews with the participants to ask follow-up questions about their map and their MTHW connection.
The workshop began with an icebreaker activity for participants to meet one another. Following this, the lead author presented a brief overview of artistic concepts such as colour theory and design principles, for participant interest and knowledge should a participant want to incorporate these concepts into their body-map. Participants were invited to trace or freehand draw an outline of their body to begin their map. Thus, the maps were life-sized (Gastaldo et al., 2018). See Appendix J for a photograph of each map. Participants were given a series of questions to prompt their body-map creation (See Table 1). The questions were distributed one at a time to participants, but following a participant request, the full question guide was shared for the participants to review at their discretion. This helped to alleviate uncertainty about the process.

Art supplies were provided, including chalk pastels, construction paper, markers, acrylic paints, pencil crayons, glue, and scissors. One participant used a bell pepper to create a stamp. Participants were provided breaks and encouraged to step away from the mapping process, however several participants choose to spend their breaks continuing the work on their body-maps. Participants spent roughly 20-75 minutes per question. Lunch was provided both days and the group ate together. Snacks were available for participants throughout the workshop. The follow-up interviews lasted 30-65 minutes.

The data were collected from two end-of-day closing activities, the individual participants' presentations of their body-map to the group, a focus group on the end of day 2, a "testimonio" created by each participant, and the follow-up semi-structured interviews. The "testimonios" written by the participants are explanations, for what they have represented on their body-map and the main message they would like an observer to take from viewing their work. Participants were given a photograph of their body-map and a copy of the testimonio as a memento (Harries et al., 2019). The data were audio recorded, except for the participants' handwritten testimonios. Past body-mapping research has similarly involved group members presenting their work to one another, individual interviews (Harries et al., 2019) and focus groups (Mitchell, 2006).

4.3.3 Analysis

The participants' presentation of their body-map to the group (Gubrium et al., 2016) and interpretation of their body-maps during the follow-up interview shaped the analysis. Participants were asked to reflect on their use of certain colours, shapes, and symbolism. Often they described how their visual representations reflected what they felt like creating in the moment, rather than being symbolic. Thus, although the research team had planned to analyse the visual data with Skop's (2016) body-map analysis method we deemed it unsuitable for this research.

Reflexive thematic analysis was used for data analysis (Braun & Clarke, 2022). A reflexive journal was kept by the lead author throughout the research including during data collection, analysis and article write-up (Braun & Clarke, 2022). The audio-recorded data, and hand-written testimonios, were transcribed verbatim by the lead author. Transcribed data were grouped together and read and re-read. Codes were iteratively applied and refined on each reading of the data. Coding was completed in Microsoft Word 2016, then a complete list of codes was printed, and the codes were manually arranged into themes. This process generated five themes. Each theme has representative material from multiple participants.

4.3.4 Positionality Statement

I (the lead author) was raised in the mainstream society of a mid-sized Ontarian city. At the time of writing, I have been a vegan for half my life. In my years as a vegan, I have not considered myself a member within a specific vegan community, so although I identify as an insider in the context of this research, I did not know how much alignment there would be between what the vegan participants expressed and what I believe. In following reflexive thematic analysis (Braun & Clarke, 2022) I embrace that I as the researcher have had influence and shaped the results, and furthered my interpretation through the discussion. However, throughout the data collection phase, the participants described topics that included less familiar territory for me, such as exploration of spirituality. Furthermore, while the participants all identified having a strong MTHW connection, my own connection is moderate. I have analysed these data with minimal bias, however analysis by another researcher may have resulted in different themes because of our differences in knowledge, experience, and subsequent interpretations of the data.

4.4. Results

4.4.1 Participant Demographics

There were 6 participants, four women and two men. Participants ranged in age from 20's to 50's. Four participants identified as white, while two identified as South Asian. The two South Asian participants had been vegetarian since birth, while the white participants were raised eating meat. The participants had been vegan for different lengths of time ranging from 2-16 years, and averaging 8.25 years. Three participants had completed college, while the others had completed, high school (n=1), a bachelor's degree (n=1), and a master's degree (n=1).

4.4.2 Themes

Through the analysis, five themes were developed. The first three themes, *Our true nature, Nature is nurturing* and *Friendly fire*, answer how ethical vegans with a connection to the MTHW experience that world. The two final themes *Emotional eating* and *Worth the investment*, explain the connections ethical vegans make among these experiences, veganism, and wellbeing. *Our true nature* frames humans as an element of the natural world, while *Nature is nurturing* captures the idea that the participants share an intimate relationship with the MTHW. The theme *Friendly fire* encapsulates the threat towards the MTHW by human actions. *Emotional eating* describes how the participants experience challenging emotions because of how they view and experience the world as vegans. Finally, *Worth the investment* explicates how what one puts into their veganism is worthwhile by virtue of the rewards that come with veganism. The themes are interrelated which reflects how humans are embedded within Earth systems.

4.4.2.1 Our True Nature

The participants' view differs from the mainstream Western view of humans as dominant over the MTHW. According to the participants, humans are from nature and are connected as an element of nature.

> *You know that we're not what we have been taught to believe, that we are above nature, we are superior to nature […]. We are made up of it. We are part of it, we are part of the system. I love how you, yeah, made yourself into nature cause that's what we are.* (Participant 3003, BMST)

Further to this, as explained by the participants, there is no hierarchy of humanity over nature, rather we are embedded within it.

> *I really wanted to try to um, like, decentre myself in regards to other beings and nature. Um, and also just to show sort of my connection and part of it.* (Participant 3006, BMST) (See Figure 4 below)

Figure 4

Interconnections among Self and Nature Represented through a Body-map



Nearly all participants expressed connection to the universe, with one explaining the connection through the body being made of elements. As another participant wrote, *"We are part of the natural world just as the fox, or fish"* (Participant 3004, Testimonio). By explaining, *"we're just as much a part of the world as natural erosion and fire interplay with the natural environment"* (Participant 3004, BSMT), this participant framed human action as shaping the world but as not inherently detrimental, and they mentioned *"even in our death we provide nutrients and opportunity for the growth of the natural world"* (Participant 3004, Interview), extending beyond the mind, and heart to include the body.

To the participants the MTHW is not limited to what exists on Earth. For example, one participant described a deep connection with the Milky Way. Connection also links to what participants referred to variously as souls, spirits or energies. *"I learned the idea that we are all literally connected. […] Even a little fly, an insect, or a tiger, it's the same spirit within those creatures that's within us."* (Participant 3002, Interview). This leads into the next theme (*Nature is nurturing*) because of the intimacy of spiritual connection, among other connections that will be presented.

4.4.2.2 Nature is Nurturing

The relationship to the MTHW was not superficial, nor one-sided.

> *I'm intricately connected and rooted to the more-than-human world. Growing and weaving, rooted, loving, connected and reciprocal relationships with all more-than-human beings. Such as trees, plants, water and non-human animals.* (Participant 3006, BMST)

It is a deep, reciprocal relationship built on love and connection, including of the spirit. Spirit was experienced or conceptualized differently by different participants, including as energy. This spiritual connection could be felt by participants when with animals, or when immersed in

natural settings. As described by one participant being with nature it is *"[a]lmost like ah, like you're in a temple or a church it just seems sacred somehow"* (Participant 3004, Interview). Another participant explained spiritual elements were represented on their body-map with *"Mother Earth and the cow being a mother, I'm going to portray it that way. For the imagery fact of it and also for the spiritual fact of it as well."* (Participant 3005, BMST) (See Figure 5)

Figure 5

Captive Cows, also representing Earth and Spirituality



Spirit was not limited to things that the Western world characterizes as alive but extended to other elements such as rocks. Overall, regarding spirituality, two of the participants referred to Indigenous systems of thought, four referred to Eastern spiritual or religious traditions, and one connected veganism to paganism.

Feeling a strong connection to nature was a requirement of participation, but having that sense of connection was repeated often by the participants. Participants identified lifelong connections with the MTHW. Even if a participant did not actively foster this connection in their younger years, they still felt a draw to the MTHW early on. Participants may have felt this connection all the time, or it may have been strengthened by contact with the natural world. Thus, there seem to be two ways of connecting with the MTHW, through physical presence, and through recognition of the soul/spirit/energy connection. The following quote illustrates nurturance through physical presence

> *Well, I find that when I'm with natural spaces, I, any anxiety, stress, or if I'm feeling any form of volatile, emotional states, they tend to at first calm. They may not calm or dissipate right away. But the longer I'm there, eventually it grounds out and I become more centred to the present and the, what is going on at that time. Be it butterflies, or winter weather or flowing grass on the Great Plains.* (Participant 3004, Interview)

Participants appreciated and felt connected with different aspects of nature, whether they were lush green spaces or the vastness of deserts.

> *I feel like it's very significant because I feel at peace in nature. I feel more at peace just being outside. […] I'd rather be with nature than be in large groups of people […] I just, I feel calm. I don't feel as stressed as I normally do. […] so when I'm in nature it's just that silence, that calm, is just so good for me, I feel like. For my own mental wellbeing.* (Participant 3005, Interview)

The MTHW was a safe place for the participants to escape to physically and when they conjured up feelings or images of the MTHW, as a source of comfort or calm.

So, it was, yeah it was an escape that made me feel safe. It made me feel safe. I grew up on the beaches, on the shores of [the lake]. And it never. Nature never fails me. It ah, it's always there. It always listens you know. (Participant 3003, Interview) (See Figure 6)

Figure 6

A Scene of Safety Drawn by the Participant



Participants felt they were cared for by the MTHW in various ways. The participants experienced intimate connections to the MTHW, including as a friend. Most participants evoked the concept of Mother Earth or home. Participant 3001 said, *"I drew a heart with an eye and flowers to represent Mother Nature, because even though it's not a physical being, it still cares for us. And has qualities of a mother"* (BMST). (See Figure 7)

Figure 7

A Human Heart with Elements of Nature Representing Mother Nature



Others felt cared for in being able to consume healthy plant foods.

> *You know if I'm ever feeling down or something and I've done gardening and getting my hands literally dirty, I feel so much better after. So, like I'm very aware of those relationships like I've said before. Like Mother Earth or plants taking care of me, as well. Like I feel very taken care of.* (Participant 3006, Interview)

The close, intimate, relationships participants described generated feelings of safety, and a desire to protect. For some participants, acting as a protector began at a young age, rescuing worms and

snails in danger, however, this protective role continued indefinitely. As one participant described, and illustrated on their body-map, a metaphorical desire to put their arms around the animals and ecosystems facing extinction, thereby protecting them from harm. The harm faced by the MTHW is connected to the next theme of *Friendly fire*.

4.4.2.3 Friendly Fire

The participants explained the MTHW is threatened. Human actions have consequences for the MTHW world and by extension humanity. The participants saw multiple sources of harm, and beginning at a young age the participants who at meat while growing up, felt using animals for food was wrong. As stated by one participant, *"I was a naturally empathetic child and felt at conflict with eating animals, stealing their milk, and eating my friends. I was too little to understand veganism and was not given a choice"* (Participant 3004, Testimonio). (See Figure 8)

Figure 8

A Child Eating Linked to Slaughtered Animals



Multiple participants expressed how children are naturally connected to, and/or love the MTHW, but *"social programming"* (Participant 3005, Interview & Testimonio) shapes children into adults who are *"willfully ignorant"* (Participant 3003, Interview) about what is going on in society and the world. The participants spoke of breaking free from societal expectations, as they learned more about how animal products are produced. As stated by one participant *"[t]he aspect of cows being separated from their mothers, and how really being a, a, cow is, is so um, like torturous to the animal, it is so uncomfortable"* (Participant 3002, Interview).

Yet, the participants recognized that even as vegans, they could not escape doing harm because of the systems that are in place in mainstream society. The participants who were raised eating meat felt complicit in devastation.

> *And it's upsetting, because again coming from a low-income family. We don't have the luxury of doing things that we necessarily want to do. So, there is a balance between. Okay I'm aware, I know how I could do better. But the fact of the matter is society, doesn't make it easy for me.* (Participant 3003, Interview)

However, the participants recognized how systems of oppression allow exploitation to occur.

> *As a species we've always done the same thing, we've taken a group, be it a group of animals, or a group of people, give them a name and then once we do that, we can do anything we want to them. Ah subjugate them, murder them, turn them into food. Um. Exploit them and seem justified in that.* (Participant 3004, Interview)

The participants saw different forms of oppression as stemming from the same root, with one participant explaining this in depth:

> *This image speaks to the patriarchal, colonial, capitalist, religious, system I grew up in. Colonization, patriarchy, capitalism, suppression of the feminine, control of bodies and minds of women, all other than human beings, and any human beings other than white males are connected and intertwined, creating systems of violence, harm, oppression, abuse, exploitation and control* (Participant 3006, Testimonio). (See Figure 9)

Figure 9

Multiple Locations of Suffering Linked to Systems of Oppression



Being a part of these systems at times lead to feelings of powerlessness for the participants. The participants acknowledged that people may not always be aware of the harms that are occurring to the MTHW, but this does not neutralize the consequences. The following quotation demonstrates how understanding harm changes with shifts from vegetarianism to veganism

> *I felt I was disconnected from actually fully understanding veganism when I was a vegetarian and actually knowing what that actually means in connection with the Earth and animals. […] And the fact that a mother cow has to be impregnated over, and over, and over again to be able to have that milk, so that people can drink it. And that the baby cows are like*

> *locked up in the calf hutches and used for veal. Which I didn't know when I was younger.* (Participant 3005, BSMT)

One participant explained how abuse was constantly being levied against the MTHW including against animals, plants, sea life, insects, and birds. Another explained:

> *And I drew a picture of the Earth crying. Cause I really think that, well a lot of people have the understanding that that's the, for a lack of a better term, the planet is going to shit because of us. And the planet is I think, sad. That's what I've felt* (Participant 3002, BMST). (See Figure 10)

Figure 10

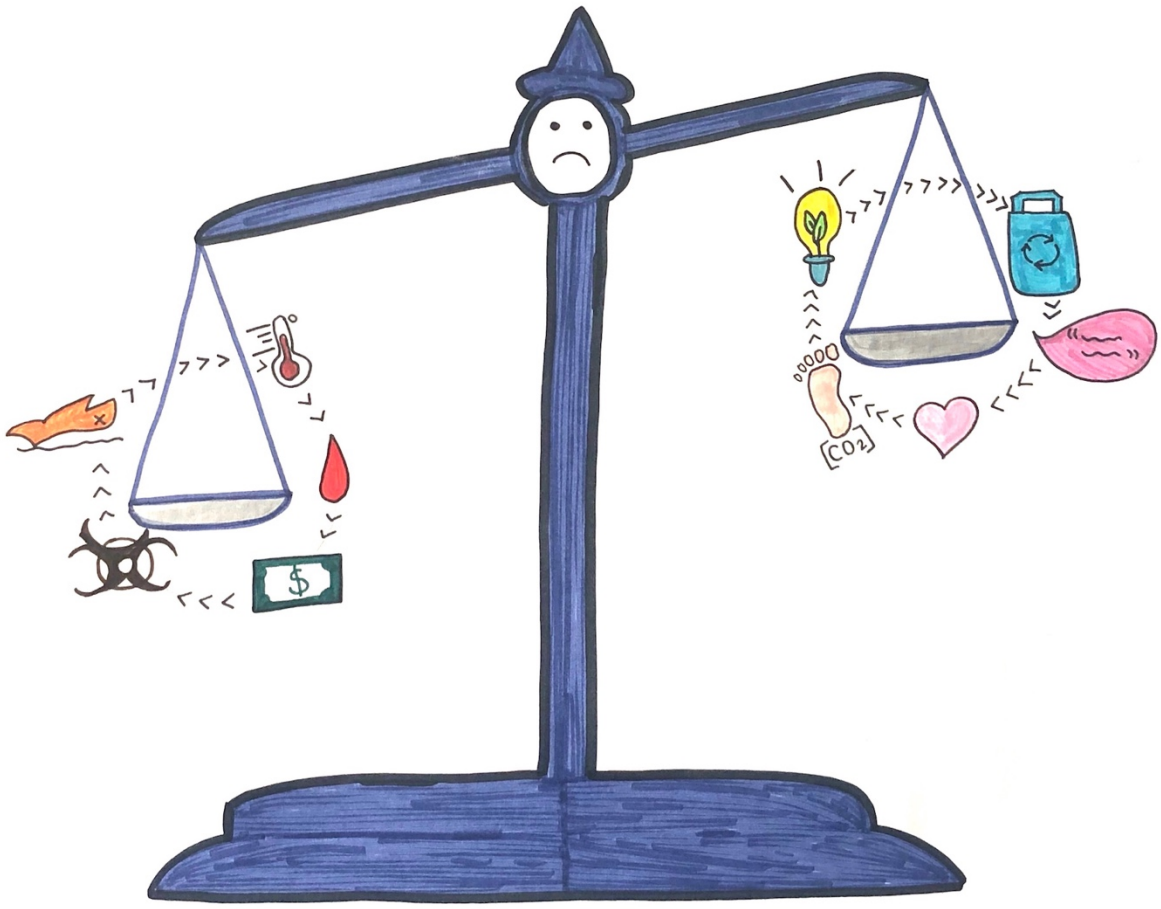
The Earth is Not Well



Another participant explained how material wants rather than needs contribute to harm through destabilization of the intimate relationship with the natural world (Participant 3001, Testimonio). (See Figure 11)

Figure 11

Unbalanced Scales with the Destruction from Want Outweighing Needs



Participants explained how destruction of the natural world results in negative consequences for humans. Identified dangers included toxicity, radioactivity, and biological threats, spanning across all natural settings from the ocean floor to mountain tops. Importantly, the participants did not blame or pathologize the MTHW world for negative consequences of human destruction.

> *So, we are introducing all these toxins and these poisons. And messing the ecosystem, and it is only reacting as it can because it's sick. So, it is deteriorating, it is climate change, it is severe weather, it is flooding, it is tornados, it's you know, melting of the polar icecaps. It's doing what nature's doing. It can only function when the conditions are ideal.* (Participant 3003, Interview)

When asked how participants mitigate harm to themselves due to ecological change most participants listed ways they try to be more environmentally friendly, reinforcing that human health is interconnected to the MTHW's health.

4.4.2.4 Emotional Eating

The participants contend with difficult emotions because vegans see the world differently from non-vegans. One participant said *"[m]y veganism does separate me from most of my peers and family. However, I feel much closer to who I am and to the natural world"* (Participant 3004, Testimonio). (See Figure 12)

Figure 12

Standing Out from a Group



Many circumstances that are considered ‘normal’ in a non-vegan world are unethical within a vegan philosophy, and therefore distressed the participants. These include using animals for food, clothing, or entertainment.

Even as children the participants described feeling turmoil, despite not knowing the extent of what went on in animal agriculture and fishing industries when they were young.

> *And from a young age watching my parents cook meat, which was a dead animal, and watching the blood run. I experienced, disconnection, confusion, brokenness and horror at eating animals. Um. My heart, spirit, body and mind were separate, disconnected, which is what I symbolized here. And, and I experienced great turmoil, emptiness, lack of life, lack of rootedness, so there is nothing going on in my feet.* (Participant 3006, BMST)

The participants were aware that veganism was not normative, but they believed they saw the reality of the ecological destruction and injustice towards the MTHW.

> *I see that now with all the like urban sprawl stuff that has been happening. Um and building all these condos and all that. It bothers me a lot because I feel like nature and the animals that are part of that nature are being greatly affected by everything that we're doing.* (Participant 3005, Interview)

The participants acknowledged their social capital may have been diminished by veganism, but this was less important to them than the wellbeing of the MTHW and their personal connections to nature. They were dedicated and serious about their veganism with one participant describing, how they were committing their lives to veganism. This comment was poignant as the participants reflected on a semi-local event in which an animal rights activist was killed while protesting. Yet the participants moved beyond concerns for their own wellbeing to concerns for the MTHW.

> *The state of the human world is sad and honestly depressing between the fires this summer and the smoke. Lots of wildlife suffered due to human decisions. Oceans and lakes are filled with trash that may be there forever and the more-than-human world has to live their day-to-day life in that water.* (Participant 3005, Testimonio) (See Figure 13)

Figure 13

Multiple Hazards with Negative and Unknown Outcomes



The participants described a variety of difficult feelings from grief and anger to depression and heartbreak over how people treat the MTHW.

> *I created like a melting sadness (laughs) that you know, when you, when you went vegan and began to learn about the truth of the world and what was happening to our planet and what we were doing to contribute to it and the death and destruction and the suffering, um, it just felt you know, overwhelming.* (Participant 3003, Interview) (See Figure 14)

Figure 14

Overwhelming Feelings



Another answered simply, *"how do I feel about the state of the […] ecological changes of the world? Well, I find it painfully crippling and it brings me to a very dark place"* (Participant 3004, BMST). (See Figure 15)

Figure 15

Feeling Negative Emotions



In their interview, this participant explained feelings that aligned with solastagia:

> *I mean they beautified things, and they changed things but as time progressed, I found it more and more that it felt less and less like the home that I used to have and ah certain sense of um, isolation and ah, disconnect from the natural environment. And it's even more so now (laughs). It's but yes it literally, we could walk a block and half and have a large field of grain, grasses and wildflowers. […] I know you can't go home again but I do reminisce of the greener, more lush times that it was. Now, some areas are recognizable, but the*

> *vast majority are completely urbanized, so don't even recognize the landscape and yeah it tends to, it's a bit sadness, a bit nostalgia.*(Participant 3004, Interview)

Finally, one participant felt distress because the treatment of animals conflicted with their religious beliefs:

> *So, I guess when I opened my eyes to how dairy is produced and how cows are treated um, it actually broke my heart. Because as I mentioned cows are very holy in Hinduism so, so it's something that like an animal I've always respected.* (Participant 3001, Interview)

4.4.2.4 Worth the Investment

For the participants, veganism was a journey through making the conscious choice to be vegan to becoming further connected to nature. Through the effort the participants put into veganism they experienced transformation within their lives.

> *I think that now that I am vegan, now that I'm doing the vegan activism. I'm getting more compassion, I am feeling more connected to animals that I haven't um you know met yet, um, […] But I'm, I think I'm blossoming into something else. I'm transforming, I'm growing, and broadening.* (Participant 3002, Interview)

The participants constructed veganism as good for the vegan through spiritual and emotional enhancement, frequently linking back to connection with the MTHW. Veganism brought the participants closer to the MTHW. Connection to the MTHW was positive, lessening anxiety, bringing joy, "rootedness" and spiritual connection which reinforced veganism.

Veganism brought wholeness and lessened cognitive dissonance which allowed participants to have more authentic relationships to the MTHW and to feel more authentic in themselves.

> *So, I'm Hindu and in Hinduism we practise something called ahimsa, which translates to nonviolence. Something I always grew up with you know […] if there's an ant beside me when I'm walking making sure not to step on it like. Now so like that's something I started to stray away from as I grew older and I guess going to veganism I feel like I'm going back into that self now. So, I think my younger self would be really proud of me, where I am today so. I think that's like the realization I came to when I was doing this.* (Participant 3001, BMST)

Veganism enhanced reciprocity in the relationship with the natural world. Although the participants felt the natural world would care for them even if they were not vegan, veganism enhanced the relationship. Being a vegan allowed the participants to experience the world richly. One participant explained that although they felt sadness and grief, they experienced love more profoundly than they did before becoming vegan.

Connections go beyond connections to non-human animals and plants and extend to 'inanimate' elements such as rocks, water, the solar system and the greater universe. The participants experienced the world less hierarchically, and they were trying to deconstruct systems of dominance and control, for example by seeking consent of animals when interacting with them and dispelling speciesist concepts. However, several participants also extended this concept to working to improve human wellbeing. The participants mentioned improvements in their own circumstances as well.

> *Positive, peaceful. So, it might be a hard choice, but you're like, it's a very positive benefit in like every aspect. I think all of us portrayed every aspect of our lives improved. So yeah, choosing to stay where you are is like holding you back*

> *and choosing to move forward into veganism, according to all of our maps experiences is like really positive and beneficial.* (Participant 3006, Focus Group)

The participants took responsibility for the change that they want to see happen. One participant explained how the participants were not passively upholding their upbringings but had each made a conscious choice to be vegan. That choice led to empowerment and peace. Most participants directly identified a feeling of inner peace associated with living life as a vegan.

> *My values align with my actions, my body, spirit, mind and heart are at peace. So I made the peace symbol again but with my heart. Living out my values of non-violence, compassion, feminism, interconnection, equity and respect for all. […] I put it to the smiling animals then, because now I am at peace with them. So that's like very much about my inner life. Um, since making this change, I feel life coursing through me, living peace and being peac*e. (Participant 3006, BMST) (See Figure 16)

Figure 16

Peace Extending Beyond the Heart to other Animals



> *I would say solace is my word like I kinda shared before the more-than-human world both nature as well as animals and being connected to them is like comforting and you get a peace from it.* (Participant 3002, BMST)

While the participants recognized that individual-level changes make a small impact, they acknowledged they are important. The participants' body-maps depict both their lives before and after veganism, and one participant identified how after becoming vegan the participants had more joy and colour in their maps and lives.

Finally, veganism was seen as something that would benefit humanity and the natural world if people take collective action towards veganism: *"The crescent moon represents my hope of rebirth for the earth. I believe change is possible if people collectively think about their impact and what changes they can make"* (Participant 3005, Testimonio). (See Figure 17)

Figure 17

Together Change is Possible



4.5 Discussion

The participants experienced the MTHW as interconnected with their own identities. Thus, their experience of the MTHW was relational. The relationship with the MTHW was deep and nurturing. While participant wellbeing was positively impacted by the relationship with the MTHW, human-induced harm to the MTHW caused emotional and mental harm to the participants. Participants did not identify physical health consequences to themselves resulting from harm to the MTHW. This could be because the participants live in a geographic location that has been relatively insulated from physical harms (i.e. extreme temperatures from climate change, floods, tornados, etc.). Veganism strengthened the participants' relationships with the MTHW through the framing of veganism as being less harmful to the MTHW. The overall experience participants felt they had with the MTHW was positive. In exploring this experience of interconnection with theory, the participants are found to be ecologically embedded. In the following discussion we will further elaborate on these findings.

The participants demonstrate ecological embeddedness, as described by Lewis and Townsend (2015). Most participants began connecting with nature at a young age and veganism enhanced their connection to nature. Lewis and Townsend (2015) describe how a connection to nature may

by extension include elements of identity. For participants, nature is seen as home, a place of safety, and an element of identity. Lewis and Townsend (2015) describe ecologically embedded people are "Seeing the threat and taking it personally" (p. 247). Through a vegan lens threats include zoos, aquariums, and animal agriculture, for example. This extends beyond Lewis and Townsend's (2015) work in that through a vegan lens the commodification of animals and their use for human purposes is wrong. In alignment with Lewis and Townsend's (2015) criteria, the participants in this study expressed feelings consistent with negative eco-emotions and solastalgia.

Solastalgia, extends beyond experiences, to what people are knowledgeable of occurring (Albrecht, 2005; Galway et al., 2019). In addition to changes in "cherished landscapes" (Galway et al., 2019) participants are disturbed by the conditions in which animals are raised including the development of 'factory farms'. The participants' feelings transcended nostalgia and moved into grief and anger. Across their many concerns about threats to the MTHW, they often spoke generally about current patterns of human society destroying ecosystems. Working to reduce the harm caused by events leading to solastalgia can have positive health benefits (Albrecht, 2006) and we see that in the participants' action to live as vegans. Despite the negative experiences participants were not immobilized, they were inspired to action and hope, and they expressed desires to protect.

The next element of Lewis and Townsend's ecological embeddedness, "The Nature of Reality" (2015, p. 248) aligns with the participants' described experiences. The participants believed society obscured the reality of harm to the MTHW. Further to seeing the threat, the act of becoming "awake" (p. 248) as described by Lewis and Townsend (2015), is equivalent to becoming vegan.

Regarding being "Dedicated beyond the ego-oriented self" (Lewis & Townsend, 2015, p. 248), participants expressed desires to protect the natural world. When asked how they mitigate ecological change on themselves the participants gave examples of activities to reduce their impact on the planet.

The participants viewed the natural world as a safe space and a source of inspiration, echoing the findings of Lewis and Townsend (2015). Veganism brings an aspect of holism to the lives of the participants. The participants focused on their mental and emotional connections to the MTHW. Oftentimes, these connections were seen to be strengthened by physical proximity to place, or more-than-human beings. As other research has found, the natural world can be a mentally and emotionally safe space (Kingsley et al, 2009). Participants could find that safe space by visualizing naturescapes, aligning with research reported by Chawla (1990; 2014).

Lewis and Townsend (2015) explain their participants had a "guiding spiritual sensibility related to the natural world" (p. 249), aligning with the spiritual elements explicated by the participants in this research. Although spirituality was not prominent in Lewis and Townsend's discussion of ecological embeddedness, spiritually was of significance in this research. Past research has found that immersion in wilderness landscapes is what led to spiritual experiences for research participants (Frederickson & Anderson, 1999). In this research, the participants' spiritual connections were enhanced, but not dependent on, physical proximity to the MTHW. However, participants maintained a connection to the MTHW in daily life and research has shown "connectedness to nature as an explanatory variable of certain states (spirituality and wellbeing)" (Navarro et al., 2020, p. 45).

Taking together, the current work supports the theory of ecological embeddedness proposed by Lewis and Townsend (2015) and indicates that the vegan participants in this research are ecologically embedded.

Connection to nature may fluctuate across the life course (Capaldi et al., 2015; Furness, 2021; Zylstra et al., 2014), but for the participants in this study their connections to nature were strengthened since transitioning to veganism. Connection to nature is maintained through time and attention (Furness, 2021). Veganism may be one way people input time and attention. As veganism is a daily, lived practice, that in some ways becomes habitual, it could be a way of permanently integrating connection to nature into one's life. Lewis and Townsend (2015) write that youth are becoming less connected to the MTHW. This would lead to less connected adults. However, this research demonstrates that ethical veganism can be a way to deepen connections with the more-than-human world, including in adulthood.

Participants felt a disconnection to the narrative of mainstream society, and they had other sources of evidence including communication with the MTHW. Although participants explained they had alternative experiences of the world, they were aware of the mainstream experience and how this break from normativity can make them socially deviant. Disconnection from broader society due to veganism could help to reinforce connection to the MTHW and research has indicated people who feel excluded may feel a greater sense of connection to nature and engage in pro-environmental behaviours (Poon et al., 2015). In contrast, people who are more socially motivated in their food choices may make less environmentally responsible food choices (Chinea et al., 2023).

Regarding health promotion, Chinea et al. (2023) have suggested that when people eat, changing the "[m]oral meaning could not only promote more environmentally friendly consumer

behaviour but could also generate healthier lifestyles, avoiding excessive consumption of meat products, for example" (p. 29). The participants in this research have a distinct moral meaning associated with animal products and have altered their lifestyles to live in a way that they find morally acceptable, thus supporting Chinea et al.'s assertion. Vegetarians and vegans are also more likely than meat-eaters to purchase environmentally friendly, including used, products (Chinea Montesdeoca et al., 2021). The participants expressed a desire to protect the MTHW world. This aligns with past research which has shown those with a connection to nature are also more likely to engage in environmentally friendly behaviours (Mayer & Frantz, 2004; Whitburn et al., 2019).

According to the Ottawa Charter for Health Promotion (WHO, 1986) the interconnection between human health and the natural world needs to be recognized for the full realization of human health. Through their ecological embeddedness participants in this research live lives that are more integrated with the ecological world, than the average person in mainstream culture in Southern Ontario, Canada. However, as discussed, this ecological embeddedness may put people at risk of negative wellbeing outcomes when they witness and recognize the destruction of the natural world. Feeling as though one is working in opposition to this destruction could offset some negative emotions, and even bring rewards, as is the case with the participants. Therefore, any initiatives or programming that seeks to enhance connection between humans and the natural world, should include exploration of mechanisms that can be protective to human mental and emotional wellbeing as people grapple with change brought about by land development, climate change, or the commodification of living beings.

Research looking at nature connectedness and food is limited (Uhlmann et al., 2022). For the participants, foods are a way to connect to nature, as found in work by Schösler et al., (2013) and

Uhlmann et al., (2022). For the participants food choices that involve animal products are seen as a mechanism of doing harm to the MTHW. This has similarities to Schösler et al's (2013) results wherein they indicated their participants generally adopted vegetarian or meat-reducing tendencies to reduce harm. Veganism is about more than food, and in practice, in the participants' lives it is helping them to connect more deeply with the MTHW. However, through its food connection veganism contributes to the dissolution of food alienation as described by Gatson et al. (2022). Food alienation is an example of the manifestation of distance and disconnection from food production and the land (Gatson et al., 2022). Participants have learned about the food system and have chosen to exclude animals from their personal conceptualizations of what constitutes food simultaneously distancing and reconnecting to the food system. Their respect for the MTHW includes respect for the plant foods they consume. This is how the participants connect to food on an individual level.

Research indicates that veganism is a more sustainable way of eating when compared to average diets that contain animal products (Poore & Nemecek, 2018; Scarborough et al., 2023). Rather than just assuaging negative feelings of culpability for harm, veganism can actively work against some of the destructive practices in place. However as noted by the participants, there are systems that inhibit structural change. This is why the participants position veganism as necessarily being a collective action and insufficient individually.

On the other hand, veganism has been criticized as representative of neoliberal citizenship ideals and individuality (Pirani & Fegitz, 2019). The participants demonstrate some neoliberal ideas around personal responsibility and choice, but their vision is for a transformed future of collective action – they feel they lead by example and have broken out of the dominant societal expectations. While ethically motived veganism is less individualistic than health motivated

diets, it still requires vegans taking personal responsibility to change their diets, behaviours, and even language. However, these actions are undertaken as a responsibility towards others. Rather than necessarily being a neoliberal action, Topa and Narvaez (2022) discuss how responsibility towards others is an element of Indigenous ways of being within the world. Connections to elements of Indigenous concepts and worldviews suggests that the participants, though not Indigenous themselves, engaged with the MTHW in a way that expands outside of Western ways of engagement. The participants seem to draw on Indigenous conceptualizations at times, regarding relationships and reciprocity. There appear to be elements of Indigenous philosophies embedded in the participants' thinking. There are parallels between the participants' conceptualization of humanity as embedded as part of the natural world and Indigenous worldviews.

In addition to the personal responsibility they feel towards others, participants see their relationships as reciprocal care. The participants report non-human agency in "Mother Earth" as providing and caring, and more-than-human beings speaking to them to express themselves and give guidance. Through this research we see how vegans with a connection to the MTHW are in relation with the natural world, and how veganism facilitates connection in multiple spheres from the physical world to the realms of emotion and spirituality. Unlike in the larger Western society, humankind is not dominant over animals. This understanding of the MTHW resembles how many Indigenous Peoples conceptualize the human and more-than-human relationship (Chan et al., 2019; Greenwood & Lindsay, 2019; McGregor et al., 2022). Importantly these worldviews are not equivalent, but they share similarities and are both outside the mainstream, dominant, Western worldview found in Southern Ontario, Canada, where this research took place. While it is unknown how much the participants may have been exposed to or influenced by Indigenous

Knowledge Systems it is important to highlight the overlap here. This must be considered to acknowledge calls for the decolonization of public health and for recognition of Indigenous Knowledge Systems in public health (Castleden et al., 2023; Langmaid et al, 2021).

Amidst the calls for mainstream veganism to be decolonized, on an individual level some vegans are engaging with their veganism in a more critical manner. The participants demonstrated they are reflecting on their cultural and spiritual beliefs which differ from the mainstream white veganism as described by Harper (2010; 2020/2010) and Polish (2016). Some participants brought attention to systems of oppression and are trying to resist those systems through their veganism.

4.6 Limitations

There were two primary limitations to this study. The first limitation was the small sample size (n=6). Although the sample size was small there was richness in the data and through the participants' engagement with the BMST process the participants reflected deeply on the content that they shared for this study. Secondly, while we focused on the participants' connection with the MTHW the participants' experiences with the MTHW could have been explored more deeply. The construct of nature connectedness includes an experiential element (Richardson et al., 2019), but exploration of participant interaction with the MTHW was limited.

4.7 Conclusions

This research found that vegan participants with a connection to the MTHW are ecologically embedded in alignment with the theory proposed by Lewis and Townsend (2015). The participants have reciprocal relationships with the MTHW that are intimate and affirming. These relationships enhance the participants' wellbeing as vegans. The participants see relational value in the MTHW (Chan et al., 2016). For the participants the MTHW is a teacher, a listener, a

comfort. The participants seek out the MTHW through physical presence and by envisioning serene places for mental and emotional safety. While the MTHW contends with threats from human actions, the participants have adopted veganism and maintain it in an effort to protect the MTHW. The participants seek to further reduce harm through vegan activism, and conscious consumer choices, including reduction in consumption. The participants are deeply impacted, emotionally and mentally by the harms experienced by the MTHW due to their vegan philosophy and worldview. Despite these challenges, veganism is a rewarding journey. Veganism is perceived as yielding holistic wellbeing benefits for participants and the MTHW.

As a result of broader negative perceptions of veganism, vegans may experience strain on their relationships with other humans. Thus, dismantling the barriers that infringe on human-to-human relationships is necessary and may enable more people to see veganism as an option for their lives. Through veganism, vegans may enhance their relationships with the MTHW. Enhanced relationships with the MTHW will ultimately benefit human and more-than-human health and wellbeing.

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Chapter 5: Applying Body-map Storytelling to Explore the Wellbeing of Vegans with a Strong Connection to Nature

5.1 Overview

A body-map storytelling (BMST) workshop (n=6) was undertaken as a component of a larger study on veganism and wellbeing. The participants in this research were vegans who had a strong connection to nature, and who were interested in creating art in a group setting for research purposes. This paper adds to the methodological understandings of how to design successful BMST projects and how to choose the right population for participation. Furthermore, we argue that if BMST has been designed to be intentionally void of therapeutic elements then it can be a safe method for participants to engage in if the population and subject matter under study are carefully considered. Participation in BMST is unique in that it demands more of participants than other common research methods such as surveys, interviews or focus groups. However, participants may feel they benefit from participation in BMST research in various ways, through meeting like-minded people, to expressing themselves creatively. The participants in this research enjoyed the 2-day BMST workshop they took part in. While not all aspects of the data collection were as fruitful as the researchers had anticipated, the resulting data were rich and provided ample evidence for an analysis of how participants experience the natural world and how that influences their wellbeing.

Key words: Body-map storytelling, veganism, connection to nature, wellbeing

5.2 Introduction

During summer 2023, we recruited ethical vegans who identified as having a strong connection to nature, to explore that connection and its impact on their wellbeing through an arts-based method, body-map storytelling (BMST). BMST is a process wherein participants create life-

sized maps with their bodies as the central feature, but rather than illustrating their body as it appears to the world the participants draw, (or paint, sketch, or collage) elements of their inner world and experiences (Gastaldo et al., 2012). To facilitate viewers' understanding, the participants create a "testimonio" and key to explain their body-maps (Gastaldo et al., 2012). Our experiences contribute valuable insights into the use of BMST as a method for public health and health research. BMST often focuses on the social determinants of health (Gastaldo et al., 2018), in our study the research was focused on veganism, connection to nature, and wellbeing.

While the beauty of the natural world has inspired countless artists it was unknown how successful our data collection would be. However, we anticipated BMST would be an engaging, enjoyable method, that would allow participants to go deeper with their visually represented responses than may be possible through using surveys, interviews, or focus groups alone.

Body-mapping is an embodied approach (Vaughan et al., 2022). Participants are guided by researcher questions to present their feelings and experiences on a life-sized two-dimensional representation of their body. The resulting artwork may be composed of symbols and other imagery. BMST has exciting potential to explore complex questions related to health and wellbeing (Sweet and Ortiz Escalante, 2017).

The use of arts-based methods, including BMST, in public health and health research has increased in recent years (Gastaldo et al., 2018; Hartman et al., 2011; Skop, 2015) but opportunities for further developing and refining methods remain. Body-mapping was originally developed in South Africa as a therapeutic method to work with people living with HIV/AIDS (Gastaldo et al., 2012; Gastaldo et al., 2018; Solomon, 2006 as cited in Hartman et al., 2011). Body-mapping guidelines were later published by Solomon, (2006) (as cited in Hartman et al.,

2011). Body-map storytelling is a research process that has developed from this earlier work (Gastaldo et al., 2012).

While there is guidance around how one can undertake BMST (See Gastaldo et al., 2012) the limits of the larger body-mapping method are debated. For example, some researchers warn that body-mapping is inherently therapeutic thus a facilitator with therapeutic skills must lead, or be present for, body-mapping activities (Solomon, 2021; Boydell & Orchard, 2021; Orchard, 2017). Others recommend that the potentially therapeutic aspects of body-mapping are proactively attended to (Skop, 2015). However, Gastaldo et al., (2012) specifically removed the potentially therapeutic elements from their BMST method. Nevertheless, resources should be prepared in advance and distributed to all participants, as a precaution (Gastaldo et al., 2012). These resources can be incorporated into the participant letter of information (Skop, 2016).

Thus, variations of BMST abound, and although removed with intention, without careful consideration researchers could inadvertently and inappropriately reincorporate therapeutic elements to their research. This could have ramifications for the wellbeing of participants. In another vein, while not dangerous, the potential for uninspired, bored, or apathetic participants could also compromise the feasibility of BMST as a data-collection method. Further guidance in the literature is needed to outline strategies for designing successful BMST projects and for choosing the right population for participation.

We argue that if BMST has been designed to be intentionally non-therapeutic in nature, it can be a safe method for participants to engage in if the population and subject matter under study are carefully considered. This paper adds to the methodological understandings of how to design successful BMST projects and how to choose the right population for participation.

5.3 Study Design

BMST was undertaken as a component of the lead author's doctoral degree. The lead author had previous experience working with arts-based methods during their master's research (community mapping) and in their time working as a research assistant at a research centre (photovoice). These experiences helped the lead author with the design of the BMST study on veganism, connection to nature, and wellbeing.

For their master's research the lead author hosted a 1-day group community mapping event, followed by individual semi-structured interviews with participants. The lead author learned to provide ample food and breaks for participants, and that a group setting maybe comfortable for participants to share certain types of information, but individual interviews allow for different kinds of information to be shared. In their experience with photovoice the lead author learned that participants may become impatient with the sharing process if the group size is too large, or the material shared demands lengthy explanations. However, in both studies the group dynamics that developed, were a key component of the successful outcomes of these projects. Therefore, the lead author believed a group format would be best for the BMST study.

The literature on BMST includes instances of individual and group mapping. In Gastaldo et al.'s (2012) work they explained that participant safety was the rationale behind individual BMST sessions with undocumented workers. Therefore, as mentioned, carefully exploring the potential vulnerabilities that participants may face is required early on during study design. As vegans make up a small proportion (~2% according to a Dalhousie University poll, (Charlebois, 2018) of the Canadian population, bringing vegans together as a group would provide a setting in

which the participants' beliefs and experiences would be validated and normalized in a way that is uncommon within larger mainstream society.

BMST was considered valuable to trial with vegan participants because, although veganism is more than a diet, vegans construct their bodies through consuming plant-based foods. Furthermore, human bodies include various other beings within the microbiome, which could raise elements related to embodiment and the MTHW. Although unexplored by our participants, this aspect of the body remains a ripe avenue for future study.

Food consumption is embodied, and the number of studies using body-mapping to explore food is growing. Some have used body-mapping in relation to wider food practices (Esteves Leghi et al, 2022; Hurley & Roe, 2022; Ryan et al, 2021), while Malecki et al., (2023) explored the experiences of women with and without anorexia, and Hyland and Lee (2024) explored food insecurity. The meat-eating participants in Bruckner's body-mapping (2017) research described "conflicted, personal accounts" (p. 326) in relation to meat consumption, which was similar to several participants in our research. It would be interesting to contrast the maps from participants with these divergent outcomes to analyze the potential differences.

After reviewing the body-mapping literature the lead author developed the questions for the BMST workshop. To trial the questions the lead author drew their own body-map on a letter-sized paper with a ballpoint pen. Following this, a vegan personal contact of the lead researcher, was asked to pilot the questions. This pilot tester did not have a background in research or the arts. The lead author read each question to the pilot tester, while the pilot tester took several minutes to sketch their response, using a ballpoint pen on a letter-sized sheet of paper. It took both the lead author and the pilot tester about 30 minutes to complete their maps.

While the timeframe, and art-supplies provided, were restricted in the pilot tests, as compared to the workshop, the pilot testing helped the lead author gain an understanding of whether participants would be able to comprehend the questions and whether the questions would be relevant to the participants.

The final question guide contained 8 questions. We estimated that a minimum of 30 minutes would be a comfortable amount of time to allot for each question during the BMST workshop. However, as there were other elements of the workshop that needed to be incorporated it was determined that a two-day (16-hour) workshop was necessary.

The two-day workshop was scheduled to occur over a single weekend in the summer, which we viewed as a risk if enjoying good weather drew participant interest away from taking part in an indoor research event. Schedule considerations included consent processes, honorarium distribution, icebreaker activities, an overview of the elements of design and colour theory, lunches, coffee breaks, summative end of the day data collection activities, a focus group, group sharing and time for participants to add final touches to their maps, if desired.

While it was revised several times during the workshop the preliminary BMST schedule was as follows in Tables 6 and 7 below. Originally eight participants were anticipated, but in the end six took part. The revised version of the schedule was not retained and therefore not reproduced below.

Table 6

Day 1 Schedule

Day 1

Time	Activity
9:00-9:15	Welcome
9:15-9:35	Consent Process
9:34-9:45	Honoraria distributed
9:45-10:15	Icebreaker 1
10:15-10:30	Individual Introductions
10:30-10:45	Topic Introduction: *-Exploring connections to the more-than-human world as ethical vegans*
10:45-11:00	Discussion: *-How can these maps be useful to other vegans/non-vegans?*
11:00-11:15	Discussion: *-Using symbolism in the body-map storytelling process*
11:15-12:00	Begin Body Mapping *-Body-map outlines* *-Question 1*
12:00-12:30	Lunch
12:30-14:15	Continue Body Mapping *-Questions 2 & 3*
14:15-14:30	Break *-Energizing activity 1 (Optional)*
14:30-16:30	Continue Body Mapping -Questions 4, 5, 6
16-30-16:45	Check-in Review Schedule for Tomorrow *– Should we modify the next day's activities?*
16:45-17:00	Closing Activity 1

Table 7

Day 2 Schedule

Day 2

Time	Activity
9:00-9:15	Honoraria distributed on arrival
9:15-9:30	Icebreaker 2
9:30-10:30	Revisit Maps *-Questions 7 & 8* *-participants mark key areas for discussion*
10:30-11:00	Write Testimonio (1-2 paragraphs)
11:00-11:15	Break – *Energizing Activity 2 (Optional)*
11:15-12:00	Begin Group Sharing (3 participants) *-10 mins/person* *- 5 mins/person participant and researcher questions*
12:00-12:30	Lunch
12:30-13:15	Finish Group Sharing (5 participants) *-10 mins/person* *- 5 mins/person participant and researcher questions*
13:15-13:30	Break
13:30-14:00	Focus Group Discussion Part 1 *– What was similar and different across the maps?*
14:00-14:30	Focus Group Discussion Part 2 *– Anything missing from the maps?* *-What do you want others to know?*
14:30-15:00	Edit Testimonio
15:00-15:15	Closing Activity 2
15:15-17:00	Optional time for finishing touches.

5.4 Ethically Engaging with a Highly Motivated Population

The research participants come from a small subculture within Western society, ethically motivated vegans. This population differs from plant-based eaters who are motivated by health. While plant-based eaters may have contributions to make to public health research, it is presumed that if one is plant-based for health reasons they will maintain their motivation if they perceive their health is enhanced by their efforts. It is important to study the wellbeing of ethical vegans because it is unknown what impacts being part of a sometimes invalidated subculture may have on their wellbeing. Vegans with a strong connection to nature were selected for this research because connection to nature is positively associated with vegan wellbeing (Krizanova & Guardiola, 2021). Qualitative studies may help to further the understanding of how this enhanced wellbeing has come to be (Krizanova & Guardiola, 2021).

This BMST research had 6 participants and although small, the group was mixed in ethnicity, age, and gender. On average, participants had been vegan for 8.25 years. To facilitate participant safety telephone numbers and web addresses of local mental health support lines were provided. However, this population and the subject under investigation were not considered at risk or sensitive in nature. Ethics approval was from University of Waterloo Research Ethics Board (REB #44397), and the ethics board did not raise concerns about the BMST workshop activities.

Participants in this research were respected by the researcher and the other BMST participants whereas in larger society veganism is at times stigmatized or disrespected (Cole & Morgan, 2011; Markowski & Roxburgh, 2019). Yet veganism is a firmly held belief, so it is something that the participants are strongly committed to. The researchers found vegans are a participant group that is hungry to be engaged for their ideas and experiences.

We believe vegans, may be inclined to participate in research on veganism if they believe it will help the vegan movement. While research ethics courses often educate researchers about the hesitancy of some population groups (i.e. Indigenous Peoples) to take part in research, these courses may be missing education surrounding highly motivated participants. This is something to be aware of and to approach with a lens to understanding the impact of participation on participant wellbeing (Russell, 2015). This enthusiasm for research has the potential to generate negative consequences for participants if participants share more freely than they would otherwise, or if they anticipate the effects of the research to be more profound (for example, directly influencing policy) than they are likely to be. However, body-mapping is one way to potentially amplify the perspectives of populations who may not be accurately represented within society (de Jager et al., 2016).

The participants were all vegans, as was the facilitator, the lead author. Had there been nonvegans present it may have influenced the level of comfort within the group and what participants chose to share. This is an important consideration when working with groups who may have faced stigma, or who have had a unique shared experience (Vaughan et al., 2022). When participants and researchers are from different backgrounds, trust must be established for successful BMST (Gastaldo et al., 2018).

When working with a small subculture researchers should be aware that people may be connected to one another or to other members of the subculture in various ways. These interconnections may be viewed positively or negatively depending on the participants and their past experiences (Furman et al., 2019). A group with members who are known to one another, could be a potential threat to confidentiality that one may not encounter in cities with larger populations and larger cultural groups.

Among the participants, some described how they viewed veganism as a form of activism. Therefore, one should consider if people may potentially view participation in the research similarly, as a form of activism. This may challenge the amount of personal self that the participant is willing to share, if they are more committed to advancing their political philosophy. In BMST the purpose is to explore embodied experiences, so it requires a different kind of participation than people may anticipate. Gastaldo et al. (2012) have warned that participants with political goals may wish to represent details that could be potentially identifying on their maps.

Over the course of our research on vegan wellbeing, many participants expressed their enthusiasm for the research and thanked the lead researcher for selecting this subject matter for their doctoral research. Participants indicated that change was needed in areas such as government policy and nutrition education and saw this research as contributing towards generating change. While it is our intention to provide more evidence that can help inform meaningful change, the immediately tangible effects of the research were anticipated to be few. Therefore, one should carefully consider the potential value of the research to the participants.

BMST is generally more demanding of participants than a 1–2-hour interview or focus group, but the process can be facilitated by having a study population that sees value in the research beyond the researcher's intellectual curiosity. However, it may be prudent to temper the participants' expectations for the results. BMST is also more participatory than other data collection methods. While this research did not take a community-based participatory action research (CBPAR) approach, it demonstrates how BMST as a method could be used in CBPAR due to its highly interactive nature. BMST could facilitate broader group engagement with the issues being explored, if planned appropriately, as explained by Gastaldo et al., (2018).

5.6 Recruitment and Scheduling

Due to the greater amount of time and resources required for BMST compared to interviews or focus groups participants must be thoroughly screened and interested in participation. For example, during our recruitment stage several people expressed interest in taking part in the BMST but were declined because they were not vegan, and one person because they were not interested in creating art. However, it is important potential participants understand artistic skills or tendencies are not required as a condition of participation (Wallace et al., 2018). However, a desire to create art was required for our study.

The recruitment posters were simple and did not provide examples of body-maps. With internet access interested participants could search for examples of the method to gain a better understanding of what a body-map is. While it is beyond the researcher's control if participants engage in this additional exploration, exposure to other's body-maps may influence what the participants create themselves. In reading about the study beforehand in the letter of information, one participant expressed how they felt like they would not be able to complete all that was asked of them. Therefore, it is important be mindful of what is shared with potential participants and how, so that they know what to expect and are not overwhelmed.

It was difficult to schedule the BMST event around participant summer plans and the availability of the needed space. We had to reschedule from our originally planned dates which meant one eligible potential participant could no longer take part. The date change had to be weighed carefully by the researchers. While one may be able to recruit a seemingly larger number of potential participants for a date further afield, interest in participation could wane between recruitment and the event, or other circumstances/opportunities may come up for potential

participants that could draw them away from participation. Indeed, one potential participant who was scheduled to attend withdrew close to the workshop. However, this was fortuitous for the research team, as the lead researcher had underestimated the physical space requirements needed for the BMST, and there was just enough space to comfortably accommodate the 6 participants that did attend. A future date also requires the researchers to send sufficient reminders to participants about the upcoming research event.

5.7 Preparing for the BMST Event

Skop (2016) wrote of the need for “a private room that was accessible and large enough for body mapping" (p. 33). This is important but does not capture the full extent of the physical requirements to facilitate body-mapping. A challenge with body-mapping is that the amount of space required is much greater than would be required for other forms of data collection. As the maps created in this research were larger than life-sized when including the borders and generous tracing around the body, a lot of table space was needed for each map. By underestimating the space required, we had to move the maps to make space to eat lunch. This could pose a challenge related to moving maps with wet paint or glue.

The subject matter under exploration may shape the materials needed for the event. In the case of this BMST research all materials needed to be vegan (for example, paintbrush bristles, paint, and glue). Participants were asked during the screening process if there were specific art materials that they would like for the BMST and the lead author provided those to support and respect the participants, and to enhance their comfort with participation.

At our BMST workshop, all participants choose to lay their maps out on tables and create their maps while seated or standing. We originally intended to purchase a thicker paper designed for

finer artistic purposes but the paper available at the local art stores was not sufficiently wide, and we wanted to ensure that bodies of all sizes could be traced. While ordering paper was an option the wait time was estimated at several weeks, and we did not have that time available. Therefore, a lower quality, teacher's bulletin board paper was purchased because it was considered a sufficient width and the length and could be specifically cut to each participant's height at the workshop. This thinner paper was more prone to ripping. However, a benefit of purchasing a less expensive paper is that one may be able to purchase a greater quantity and therefore have additional paper if participants are unsatisfied with what they have created and seek to begin again.

Vaughan et al. (2022) described how they provided participants with cloth for body-map creation rather than paper. This would facilitate ease of display and transport of the body-maps in future public displays. In our case, the paper was fragile and could rip when participants lay on it to trace their body outlines. Furthermore, it may not be possible to use paper maps in public displays, especially at outdoor events, such as community festivals. Photographs of the finished body-maps could be printed on cloth, but there is an added expense with that for researchers to consider.

At our event, each participant worked on two tables pushed together. The tables were shorter in length than the maps of the tallest participants so at times their maps flowed off the table and had to be carefully moved to work on each aspect of the mapping. With two tables, there was a small gap at the adjoining edges where pencils, pens, and markers could inadvertently be pushed though, potentially damaging a participant's map.

Vaughan et al. (2022) advocate for an “adaptive approach” (p. 7) to BMST. We concur with this development in the method. Adaptation may have the benefit of leading to unanticipated insights. Within this research an example was supporting a participant in their choice to create a stamp out of a vegetable that had been provided as a participant snack. This was interesting to consider in the context of the research question which was related to connection to nature and wellbeing. Not only do participants literally construct their bodies from the food they eat, they used edible materials from the natural world to construct the representation of their body through their body-map. It may have been desirable to have paints dyed with natural (vegetable, fruit, other botanical) colouring, given the connection to nature felt by the participants.

The BMST preparation was time-consuming. In addition to the standard preparation of information letters and consent forms, other activities included, booking a room that would be private, of sufficient size and comfortable for the participants, sourcing paper for the body-maps, purchasing/gathering art supplies, designing icebreaker activities, preparing information on colour theory and principles of design and finding appropriate catering that would meet all dietary needs.

Overall, a key takeaway is that flexibility in the BMST approach is needed. The workshop schedule was modified several times to accommodate participant needs. The workshop did end somewhat earlier than planned on both days. As described, the initial approach of providing a question at a time to participants was revised to provide participants access to all questions in advance to reduce participant anxiety and to enable the participants to better plan the overall presentation of their body-map.

5.8 Facilitation and Initial Data Collection

As originally conceived, body-mapping was designed to take place over 30 hours (Solomon, 2006 as cited in Hartman et al., 2011). Vaughan et al.'s (2022) research workshops were 6 hours total in length, other researchers have had body-mapping sessions as short as 30 minutes (Bruckner, 2017) or even 15-20 minutes when exploring knowledge rather than experiences (Wallace et al., 2018). Our BMST research was tentatively scheduled to take place over 16 hours, 8 hours per day. Importantly, not all that time was active body-map creation time (See Tables 6 & 7).

Similar to Vaughan et al. (2022), who had about 5 participants per group, we had 6 participants. Six was a comfortable number to work with. At the end of the mapping, each participant was given time to present their map to the group (Harries et al., 2019). With each participant given 10 minutes to present their body-map to the group and 5 minutes for questions, the total time required for group sharing was 1.5 hours (See Table 7). This resulted in a substantial amount of data, but was not tedious for the participants to engage in. A break was taken midway through the presentations and not all participants used the full 15 minutes.

At the start of the BMST workshop the participants provided written informed consent, which included consent to use their body-maps and testimonios in academic outputs. Each morning before beginning the workshop, participants were provided their honoraria. Initiating each day with a dynamic icebreaker got the participants laughing and increased the group's level of familiarity with one another. The standard group procedure for body-mapping is that participants trace one another's outlines (Vaughan et al., 2022). The lead researcher was concerned that participants could be uncomfortable tracing one another's bodies but there seemed to be no

hesitation with this. For participants with body sensitivities this could be a more fraught aspect of body-mapping. One idea presented by Vaughan et al., (2022) is for participants to use clothing as something to represent their body and trace around the outline of the chosen clothing.

While the body tracing involved multiple participants assisting with each map, the rest of the map creation process was individual. This, along with the group presentation and other data collection methods results in a combination of individual and group generated data (Bruckner, 2017). Some researchers have attempted to limit the influence of other group members on one another (Esteves Leghi, 2022). At our BMST workshop participants worked next to one another but the variety of experiences represented, and the ways of creating their art, were diverse.

We originally allotted between 30 to ~55 minutes per question for map creation, and thought that was a liberal amount of time, but of the 6 participants, only one fit this timeline. A challenge of BMST is that participants may take different amounts of time to complete their body-maps (Gastaldo et al., 2012). In this case encouraging faster participants to take frequent breaks may be helpful. As the mapping occurred in the summer months, it was comfortable for the participants to take walks outside and not feel constrained to the room. This also allowed time for reflection. Recommending that participants bring a book, knitting, or something quiet to occupy their time may be advisable if you request the participants remain until the end of the group mapping session. Researchers may consider having something on hand that participants engage with when on breaks or while waiting for others to complete their tasks, for example, a puzzle.

Two questions prompted the participants to fill within the outline of their bodies. One question asked the participants to reflect on their pre-vegan life and the other on life since becoming

vegan. Some of the research participants noted that the body-positions they drew may have been different had they known the content of all questions beforehand. One participant remarked it was a happy accident that the body-position they represented generated the impression of running towards their vegan self from their pre-vegan self. This was in line with the positive progression in their life as they transitioned into veganism. However, had they inadvertently chosen another body-position this significant element could have been lost, and had they posed in the opposite direction it may have looked as if they were moving backwards. Thus, providing all participants with the questions in advance could be helpful for BMST workshop facilitation. In reflecting on the questions, one participant explained *"I found the prompts solidified a lot of things that I already had in my mind and kinda drew connections"* (Participant 3004). Having the questions presented at once may enable a more cohesive presentation of complex connections.

Having shared meals brought the participants together to create more comfort within the group. Vaughan et al. (2022) describe how food was shared in previous body-mapping workshops to help facilitate group cohesion. This was especially important in this workshop given the food relevant subject matter.

The lead author, actively made efforts to comment, question, or encourage the participants in their BMST creation (Skop, 2016). We thought during this time important insights into the maps might be shared, but the presentation back to the group and testimonios were richer data sources. This richness may have developed, over the course of the BMST, as participants continued their engagement with the process (de Jager et al., 2016). This phenomenon was explained by one participant:

> *I mean I was kinda surprised what came out. The questions just, I said, they are very open-ended, but they elicit something that you didn't think was going to come out, whereas, because too you went in the direction of not just stories but images, symbols, that you use to represent what you're thinking and feeling. So yeah, it wasn't, oh I know what I'm gonna do, it was oh, this is a journey through my life, and I didn't know what was going to come up. So that's what I found really interesting* (Participant 3003).

The lead author had to encourage the participants to take breaks throughout the process. With a more sensitive subject matter it would be even more important to ensure participants were taking breaks and stepping away from the mapping every so often. Even with the overnight break between the two days some participants described thinking about their maps on the evening after day 1. Other research has indicated participants had time to think through their mapping experience before undertaking individual interviews (Lys et al., 2018). Some BMST projects have given their participants 'homework' to complete between sessions (i.e. Skop, 2016). This differs from what would be possible with a standard interview or focus group. Body-mapping provides more time (Skop, 2016). In spontaneity there may be a level of genuine response that may be lost with a more constructed response. However, it is important for participants to feel as though they are representing themselves in a way that is most desirable to them. Of course, there remains the question of how participant responses will be interpreted by the researchers and future viewers of the body-maps.

There was a lot of quiet downtime for the facilitator as the participants were creating their body-maps. Two facilitators may be helpful, for assisting with retrieving catering orders for example. Having a larger ratio of participants to facilitators is helpful to empower the participants and to avoid the potential feeling that they are under constant observation. However, having an

additional facilitator would be important if working with a more sensitive topic or population facing greater vulnerabilities.

Another important consideration is having time beyond the official end of the BMST event for participants to put finishing touches on their maps so that they can leave the workshop with a sense of satisfaction. It is important for the participants not to feel rushed (Furman et al., 2019). While most participants in this research left at the conclusion of the research one participant did stay beyond the end of the day to complete their map. This was easily accommodated, as time had been built into the schedule for this, and while the lead author cleaned, there was no pressure on the participant to leave. Vaughan et al. (2022) also notes the participants worked on their maps after the body-mapping workshops had officially ended. This shows an interest and engagement in the research.

In group settings participants may speak about the work of others (Cox et al, 2021). Participants in this research presented their own maps but commented and asked questions of other participants. However, by the time the last participant presented their map it seemed that the participants were having a more difficult time generating comments. In future work one option may be to have participants prepare questions and comments for one another in advance of the presentations. While some questions may be made redundant during the body-map creator's presentation, it may help to generate a more even distribution of questions and comments for all presenters.

A potential pitfall from having a group process is that participants may compare themselves to others within the group. Having a supportive group atmosphere would reduce feelings of competition that could potentially arise amongst group members. Over the weekend at the

BMST, the participants were open to one another. For example, while one participant described viewing religion with trepidation they explained how another participant's positive representation of their own religious views, opened the first participant to the idea that religious experiences and expectations could be positive.

Asking participants about the creation of their body-map's subject matter sometimes resulted in descriptions of the methodological process of creating the body-maps. This was particularly evident during the day 1 closing activities. The focus group at the end of day 2 was not as fruitful as we had envisioned, perhaps because it took place at the end of the BMST workshop and participants were fatigued. It may be worthwhile to explore holding a focus group after lunch if one is working with a full day session, rather than at the day's end.

5.9 Participant Feedback

Participants were not directly asked for feedback on the BMST workshop, but over the course of data collection some provided their opinions and experiences with the process. Mitchell (2006) describes how in their work with children they selected body-mapping because of the fun that could come from drawing. Youth have reportedly enjoyed the body-mapping process (Lys et al., 2018). This same "fun" or enjoyment may be accessible to adult participants as well (de Jager et al., 2016; Gastaldo et al., 2012; Gubrium et al, 2016; Ryan et al., 2021; Vaughan et al., 2023), but discussion of this element of body-mapping remains limited. The participants in this research reported enjoying the body-map storytelling weekend. For example, one participant described the playfulness BMST elicited within them:

> *Yeah, so for me. I guess while I was working [on] question three, I realized that it was like my inner child was kinda thriving. Like doodling and like colours (laughs).* (Participant 3001)

Later during their follow-up interview the same participant reiterated their enjoyment of the process:

> *No, I just want to say it was so fun finally meeting people that are vegan [at the workshop]. And it was so fun that I was able to take part in doing a body-map, something that I've never done in my entire life. So, it was really nice to just sit down, reflect on my experiences, my life so far, and just meet new people. [...] I really enjoyed this. So, thank you for doing this.* (Participant 3001)

Other participants described similarly positive experiences:

> *And uh, it's been a really, it's been an interesting feeling that it evoked in me. So, I've really been enjoying it so far.* (Participant 3003)

> *Yeah, definitely. Now that you said that, and now thinking about that definitely connecting with my inner child and all the colours that kinda came out in this drawing was like again kinda connecting with that inner child energy. Um when I was younger that like rainbow kinda energy that I had, like hyper, but also just like magical kind of energy I had when I was a kid kinda came out during all of this.* (Participant 3005)

Commenting on the process of using art to answer the questions one participant remarked on the powerful impact they felt:

> *[…] I'm not an artist so to figure out how to put it in a picture, or a symbol, like I can just feel it physically doing something different then you know, kinda trying to put it into words, instead using yeah it's so much more embodied, than, than other ways of doing it, which I'm finding like emotional right. […] So, it's just like a really powerful experience for me and to put it together and to have the prompts. So, I'm not trying to think of it but I'm trying to, you know, figure out how to express that prompt. And put it together in a way that I feel like, yeah! Just without the words. This whole other way of communicating is just really powerful.* (Participant 3006)

On day two of the workshop a participant reflected on their time off from body-mapping in the previous evening *"Yeah, I felt very peaceful last night, like very connected to myself and things that matter to me last night. It was just good, solid, grounding. Sorta reminder, connecting, yeah"* (Participant 3006).

Another participant explained how they were able to connect with their younger self through creating art. Indeed Gastaldo et al., (2012) have written how BMST "has the potential to connect times and spaces in people's lives that are otherwise seen as separate and distal in more traditional, linear accounts" (p. 10). The BMST also helped participants to make connections now in the present that they had not considered before:

> *You know, I've been vegan for 13 years and I never had it um, my thoughts about it play out that in this way to focus on it so much. Um. [Person's name] and I talk about veganism I have you know, vegan friends, but to focus on it so much was a totally different experience that I actually really, really valued because it just*

> *made me explore things deeper and focus on other things. And you know the questions as guides, things that I hadn't necessarily made connections with. So, I really did like that experience of just exploring things again after such a long period of time. With questions that I haven't asked myself. Or that I haven't heard from other people. But questions of real value. That um, makes you contemplate why you're doing what you're doing. How does this connect to here, there, everywhere, you know.* (Participant 3003)

Another participant remarked:

> *I'm on question 6 and I guess I'll say that doing this body map has evoked a lot of interesting emotions, which I portrayed in some of the pictures that I put on here. It's interesting to think about, like actually put it on paper. Instead of just kinda going through life (laughs).* (Participant 3005)

Further to this, although therapeutic elements were not included within our BMST workshop, at the end of the workshop one participant said they thought it had been a "therapeutic" process and it appeared as though the other participants agreed. It is unclear how the participants conceptualized something being therapeutic. They may have meant it was relaxing, empowering, or validating, without treading on areas of clinical significance. However, this does reinforce the significance of careful attention to the subject matter and population under study. This also necessitates further consideration of the guidance provided by Solomon (2021) and others.

According to the feedback given, the BMST workshop provided value to the participants. However, there was one participant who did not overtly comment on the workshop, and we must consider that this silence could represent disinterest or dissatisfaction with BMST.

5.10 Follow-up Semi-structured Interviews (SSI)

Like the research design of Vaughan et al. (2022) participants in our research were invited to take part in an individual SSI after the BMST had taken place. Scheduling the interviews took place after the BMST. Although this was informal this could be considered a form of ongoing consent for participation.

At the beginning of their follow-up SSI, participants were presented with a letter-sized colour print of their body-map (Harries et al., 2019) and a typed version of their testimonio. While the maps helped guide the interview, we anticipated a greater degree of participant analysis of their maps during the SSI and therefore had several questions pertaining to the elements of design. However, these questions were not particularly fruitful, and it seemed as though the participants had expressed themselves sufficiently though their presentation to the group at the BMST workshop and in their testimonio.

5.11 Data Analysis

Once the data were transcribed and compiled, there was not only an adequate amount of data, but it was rich in content (Gastaldo et al., 2012). While there are those who have analyzed the completed body-maps (see Mitchell, 2006; Skop, 2015) in the body-mapping literature it does not seem to be a norm to analyze the maps as data, although the maps have been used for the development of follow-up questions for participants (Esteves Leghi et al., 2022). Based on the comments from participants we did not think it would be appropriate to analyze the maps. The presentations to the group and the follow-up interviews were sufficient to obtain explanations as to why symbols or colours were used without requiring overinterpretation on the part of the researchers. Indeed, others have warned that researchers should not imbue meaning on the body

maps that may not exist (Furman et al., 2019; Shahaduzzaman & Chowdhury, 1998; Skop, 2016). Researchers who are interested in a visual data analysis could consider completing an analysis in advance of any follow-up interviews and present that analysis to the participant for validation or discussion. This would serve as a form of member checking.

The lead author was pleased and energized with the success of the workshop and the follow-up SSIs. This translated into an eagerness and enthusiasm for transcription, analysis and writing up of the research results. The outcomes of this data collection method demonstrate there can be enjoyment of qualitative research processes by both participants and researchers.

5.12 Public Presentations based on the Results

Body-maps make for eye-catching results dissemination tools. Our participants were enthusiastic about the proposal to host public presentations of their body-maps. However, finding an appropriate venue for the maps is an important consideration. For our own research, a local vegetarian event was a hoped-for venue to display the maps, but this was not possible in discussions with the organizer due to the content of one map, which they felt was inappropriate for their event. The research team decided not to censor part of the map or display only some participant body-maps and not others, therefore we were unable to participate in this event.

However, sometimes modifications to the maps may be required (Gastaldo et al., 2012). For example, in our project, the lead author painted over some small, but potentially identifying features on one participant's map after the conclusion of the data collection. While these details were small elements on the participant's map, they likely were significant to the participant. Therefore, it would be important to be attentive to details during the BMST and discuss needed modifications with the participants at the time. Additionally, participants may use symbols that

the researcher is unfamiliar with. In this research examples included the third eye, chakras, and sigals. The researcher must be attentive to symbolism that may otherwise be viewed by the participants as self-evident.

5.13 Remaining Questions and Future Directions

We have several questions related to our own experience with the BMST workshop that we recommend considering for future research. The first question is, why were the participants willing to invest the time they dedicated into BMST at the time of recruitment? As we have discussed, the study population of vegans may provide some insight into the answer, but we feel this explanation remains incomplete. Secondly, why did participants remain at the BMST for the duration of the workshop? What motivated them to continue their participation and not rush through the questions? Honoraria were provided at the start of each day's session, and participants were reminded they were free to leave at any time. Skop (2016) suggests that a therapeutic quality to BMST may reduce participant attrition, but this explanation does not account for the initial willingness to invest time and energy in the research.

Questions more unique to our topic of research are related to spirituality and nature connectedness. Spirituality had an important place in the results of this research. We wonder if art enables people to connect to something on a spiritual level that would otherwise not be attainable through an interview or focus group? The only notation of spirituality in relationship to body-mapping is in a study that involved body-mapping with Indigenous youth (Morton et al., 2021) although others have developed themes in the data analysis related to religion (Malecki et al., 2023). Finally, is there something about the nature of participants, that those with a self-identified strong connection to nature would also be interested in art? We look forward to future research that will help answer these and other questions related to the application of BMST.

5.14 Conclusions

In the summer of 2023, we held a BMST event that engaged both the participants and lead author, leading to enthusiastic map creation on the part of participants and invigorated data analysis and writing on the part of the lead author. BMST can be enjoyable, it facilitates connection to self across time and is both a physical and emotional process. In this article we have provided practical considerations for those considering developing their own BMST projects. While acknowledging the beliefs of others surrounding the therapeutic nature of BMST we argue that the therapeutic elements have been sufficiently removed through Gastaldo et al.'s (2012) development of BMST to enable a safe application of BMST without necessitating trained psychological providers be present for body-mapping. However, for participant safety we do recommend carefully considering the population one is working with and the subject matter under exploration. There are considerations around study population that may not seem obvious that we have outlined within this article. Overall, we see BMST as a demanding but rewarding arts-based research method for both participants and researchers.

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Chapter 6: Conclusions

6.1 Overview

The goal of this research was to explore vegans' experiences in relation to the different contexts in which they live, to their wellbeing and their food security. This research answered questions of how the wellbeing and food security of ethical vegans is influenced by the human and MTHW and how vegans navigate these complexities. The following sub-questions were answered by this research:

- **Sub-Research Question 1:** How do ethical vegans conceptualize vegan experiences of food (in)security in a predominantly non-vegan society?
- **Sub-Research Question 2**: What are the barriers faced by ethical vegans and how do they resist and cope with these constraints?
- **Sub-Research Question 3:** How does the practice of veganism enrich the lives of ethical vegans?
- **Sub-Research Question 4:** How do ethical vegans with a connection to the more-than-human world experience that world?

6.2 Key Findings

Study 1 found that being vegan and food secure necessitates adoption of a model of eating well that falls outside the dominant Standard American Diet. The participants (n=16) identified that vegans must acquire new knowledge around nutrition and food preparation to be food secure. Participants felt responsible for their level of food security and believed that there would be little support for vegan diets during times of need. Vegan wellbeing can be compromised by food

insecurity, and food secure vegans can face transient challenges in accessing food when eating outside their homes.

Study 2 found that transitioning to veganism involves divergence from the mainstream worldview surrounding animals. This transition can lead to challenges in relationships, but relationships are often improved with time and action. The participants (n=26) were strategic with how they navigated everyday interactions with non-vegans and the primary action taken by participants was embracing quiet veganism. One's identity had influence on the specific challenges faced and cultural challenges were common. However, through veganism participants developed a sense of self as a vegan that positively influenced wellbeing, particularly in the mental and emotional realms. With their social and ecological justice orientations the participants encouraged moving veganism beyond an individual process to something community building and generative of collective action. The participants in this study were vegan for an average duration of 7 years. The enduring nature of their veganism may be due to the positive wellbeing benefits they associated with veganism and recognition that being a "perfect vegan" is not possible.

Study 3 found that the participants (n=6) were ecologically embedded according to the theory of ecological embeddedness outlined by Lewis and Townsend (2015). Due to their ecological embeddedness the participants experienced negative wellbeing outcomes when animals or nature were harmed, with some participants describing experiences aligned with solastalgia. However, the participants' relationships with the MTHW facilitated positive wellbeing outcomes that were viewed as more significant than the negative experiences. Through veganism the participants believed their relationship with the MTHW was enhanced and they contributed less harm to the world.

6.3 Study Results and the Goodness of Fit with the Revised Mandala of Health (Langmaid et al., 2021)

This research was guided by an ecofeminist lens, with the framework of the Revised Mandala of Health by Langmaid et al. (2021). The intention of the three-study design was to gain a holistic sense of the participants' wellbeing. The results of the studies address the multitude of elements contained within the Revised Mandala of Health (Langmaid et al., 2021) model. As the Revised Mandala of Health is a model of health promotion, one can conclude that ethical veganism is a form of health promotion for vegans, but also for the MTHW. There is presently research that demonstrates how veganism can lessen harm done to the environment and to other life on earth. The overarching finding of this thesis is that veganism can be conceived of as a form of health promotion for the ethical vegans who live it.

Nearly all the participants identified a series of benefits that they perceive as coming from veganism. One participant described this as the "win-win-win trifecta". Starting with the individual human we see body, mind and spirit are accounted for. Veganism starts with a choice within the mind, perhaps guided by the spirit or the heart. As the participants in this study are ethically motivated, living according to their ethics is crucial for the participants. Living according to vegan ethics enables the participants to decrease negative feelings about their own impact on the world, and a feeling of internal contradiction, that many identify after overcoming the cognitive dissonance (a term specifically used by many participants) they felt as non-vegans.

Living according to their ethics also allowed some participants to achieve a sense of peace, and increased feeling of connection within the MTHW. Living as a vegan increased the participant's mental, emotional and spiritual wellbeing. Regarding the body, many participants had hoped that veganism would lead to their improved or maintained physical health, but many participants also

stressed how their own physical health motivations were not a primary consideration leading to their veganism. However, the physical health of the environment and animals, was a main driving force for their veganism. The physical health of humans who work in slaughterhouses was also mentioned multiple times as a concern for the participants.

The relationship participants envision with ecosystem services is non-exploitative and more harmonious through veganism. The term services implies helping and the participants envision this as a reciprocal relationship. The participants view social relationships as extending beyond humans. These relationships may be more akin to parasocial relationships. Whereby the participants may not know individual animals, but they feel they come to know them through their vegan education. If participants did know animals it may be through past relationships, including around the slaughter of an animal, that shaped their choice to become a vegan. Therefore, relationships of significance can transcend the boundaries of time and space. Furthermore, the participants feel deep empathy for animals as noted at times when encountering animals in real life, for example as animals are being transported to slaughter, or through consuming media.

These social connections put limits on how participants are willing to engage in the world. This differs drastically from mainstream Western culture, creating veganism as a subculture. None of the vegans in this study were vegan from birth, so all experienced a shift in breaking out of the non-vegan cultures they came from. Breaking away from mainstream animal consuming cultures, and seeking others, forms a vegan community. For those who engaged with the larger vegan community, whether in person or online, or at least had some vegan connections, they found this to be a source of wellbeing. Most participants expressed that they thought the vegan community was inclusive enough for everyone and had not faced exclusion themselves.

However, being socially justice oriented the participants did express concern that those with less privilege may at times feel excluded from veganism, if they are inculcated to the idea of a consumerist motivated veganism, that relies on image and expensive analogue products.

As social relationships place constraints on the actions of the vegan participants so do ecological determinants. While the participants have recognized they are in positions of privilege they see the ecological determinants of health as threatened by Western lifestyle and agricultural practices.

The participants expressed how what they perceive as most challenging about veganism and what they have found non-vegans express to them to be the most challenging is disconnected. The participants have found the psycho-socio-economic environment to be the most difficult element to navigate, whereas they report non-vegans would find the logistical elements of lifestyle the more difficult element.

A threat to holistic wellbeing from veganism comes at the level of social interaction. The severity of this varied, for example, some participants expressed feeling a disconnection from loved ones who were not vegan. On the more minor level, participants identified they felt frustration and annoyance with people who ask them tedious questions. At a moderate level of significance but on a macro-scale participants felt frustration that the world is not vegan. Some participants explained they were not part of a vegan community, and a portion of these participants felt veganism was lonely. Participants adopted quiet veganism to maintain psycho-socio-economic relationships. Although the threats the participants feel are pressing, most vegans are strategic with their veganism which extends the time element of this model.

Many participants view veganism as protective therefore they would see veganism as fitting among health prevention services. Being a member of a vegan community also seems to enhance wellbeing for vegans.

Participants consider those with more privilege as having greater responsibility to become vegan. However, this may mean in practice more financially well-off people, which could contribute to tensions about veganism as a practice for wealthy, often white, people.

Finally, to conclude the discussion of the fit of the Revised Mandala of Health (Langmaid et al., 2021) recent work written collaboratively by Indigenous and non-Indigenous authors, has made the argument that settler vegans and vegetarians in the Australian context may at times consume traditionally harvested animal products to facilitate relationship building and decolonization (Smith et al., 2022). McGregor et al., (2023) argue that veganism must be flexible and "respectfully engage with" Indigenous "and other food cultures, including those that eat animal products" (p. 16). As veganism is a firmly held ethical belief for the participants and a form of health-promotion, and most participants reported they did not break their veganism, especially regarding food, the doctoral researcher would not suggest breaking veganism to build relationship because that would cause harm to the participants.

However, without prompting several participants broached the subject of Indigeneity and subsistence food cultures. The participants in this research highlighted the difference between Indigenous food practices, including hunting and fishing, and the industrialized food system. The participants have a sense of the colonial injustices that have taken place and are mindful that they do not want veganism to be applied in a neo-colonial manner.

Vegans' lives are enriched through the promotion of health and wellbeing more broadly, but they view this as extending beyond themselves to health promotion for the MTHW as well. The barriers faced by vegans relate to their experiences with the psycho-socio-economic environment.

In conclusion, for the participants in this study veganism can be seen as a form of health promotion at the individual, community and global level. Veganism is health promoting for the participants, but it is not without its challenges. These challenges primarily arise at the psycho-socio-economic level.

6.4 Contributions to the Literature

This research has contributed to a better understanding of the maintenance of veganism in a Canadian context. The participants maintained their veganism when confronted with challenges to relationships, or with food security, because veganism was a deeply held ethical belief that they thought would benefit the natural world, other humans, and themselves. Benefits were felt in the present through emotional and mental wellbeing and were anticipated in the long-term through improved physical health, and through the potential to lessen environmental damage and animal suffering.

Food insecurity is primarily a result of lack of access to sufficient funds to afford food. The participants suggested eating a simple vegan diet is more economical, which could buffer some people from experiencing food insecurity. There were few participants with experiences of food insecurity, but that may have been a recruitment issue. However, expanding conceptualizations of food security beyond the individual or household level to the community or global scale, veganism or more specifically plant-based eating patterns, were seen as solutions to offer

increased levels of food security in the future. A plant-based eating pattern may not increase food security in the present because it may not be desirable for the majority of people. However, the participants emphasized that with education, particularly at the elementary school level, plant-based eating may become a more desirable eating pattern.

6.5 Implications for Public Health Practice

This research helps to inform public health initiatives to combat food insecurity among vegans and related populations (vegetarians, plant-based eaters), by demonstrating that there is a desire and need for resources to be available to this population. Ensuring vegans can access food they need and want for wellbeing would enhance the possibility of people following planetary-health recommendations to shift towards plant-based diets. Veganism is maintained in the face of challenges because participants believe it is better for one's physical health to be a vegan, they enjoy vegan food, and they feel alleviation of mental anguish that they felt prior to becoming vegan. Veganism is a sincerely held ethical belief which should not have to be compromised in an effort improve food security.

Food has prominence within this dissertation in Chapter 2, on Study 1 on veganism and food security, and to a lesser degree in Chapter 3, on Study 2 on veganism and broader wellbeing. We can see veganism as more than food, represented in Chapter 4, on Study 3 on veganism and connection to the MTHW. These results suggest that though veganism has become more mainstream, in practice it retains elements of its radical nature, because it has not been diminished to an absolute consumption practice.

Veganism as practiced and envisioned by the participants has other important connections to public health beyond food, especially as related to health promotion. With the Bangkok Charter

health promotion was criticized as falling into the ideals of neoliberalism (Green & Tones, 2010). In such a scenario the potential for radical societal change is diminished and greater responsibility is placed on individuals for their own health, while also increasing healthism discourses (Green & Tones, 2010).

The participants used the strategy of framing veganism as healthy when trying to garner broader appeal for veganism and to normalize veganism, in a world where vegans are often still viewed as outside the norm, and extreme in their views. This is part of what was described as a quiet approach to veganism. In their approval of plant-based eating the vegan participants could be seen to take a utilitarian approach to veganism, which obscures the values associated with veganism but again they see that as a step on the path to transformation rather than an end goal. When the mainstream culture is embedded in valuing the primacy of health, this is a way for vegans to strategically position veganism within society to communicate with other people in a way that may appear to fit the dominant narrative more closely.

Although many participants do construct veganism as a way one can be responsible for their own health, the participants simultaneously espouse a veganism that is more radical and transformative in line with the new public health, and in contrast to the individualized nature of neoliberalism. It appears they want to see the development of a vegan collectivity.

Equity and empowerment have been described as the "twin pillars of health promotion" (Green & Tones, 2010, p. 21). Ethical veganism is against speciesism and by dismantling the hierarchy that places humans above animals, vegans are working to increase equity to a broader network of the human and more-than-human. One could consider the ability to live out one's natural

lifespan, free of confinement, and forced labour to be a mechanism through which animals may gain greater equity within a vegan society.

Equity could be similarly extended to the MTHW including plants and wild animals through a reduction in harms that they face as a result of industrial animal agriculture. While this may extend beyond Western conceptualizations of who is equity deserving it aligns more with other worldviews. For example, in Bolivia and Ecuador elements of the MTHW have been granted rights (Vidal, 2011). These positions have been informed by the Indigenous worldviews in these locations.

The participants explain humans have a responsibility towards the MTHW. Parker (2020) has argued feeling responsible for the environment is an extension of neoliberalism. However, in contrast the responsibility felt by the participants seems to be stemming from their relational worldview. This was demonstrated by the participants in Study 3 in particular, where their relationship is embedded with care and reciprocity, tying into ecofeminism.

One of the primary recommendations made by the participants is education around veganism. Education is necessary for health promotion, and it can lead to the development of different values amongst participants (Green & Tones, 2010). Wherein the participants explain the mainstream society values individual taste preferences and individual wants over the wellbeing of the MTHW there is an opportunity for more vegan oriented education to shape these values, simultaneously moving them away from the individualized responsibilities that come with the concurrent emphasis on individual choice.

Importantly, Green and Tones (2010) note that education enables people to think critically. The vegan participants in this research described breaking out of the veil that made up collective consciousness and in becoming vegan have exercised their critical thinking skills. Whereas before the participants identify they were not free to think critically about things such as industrial animal agriculture when they were children eating meat, for example. This then brings in the question of whether before within the mainstream consciousness the participants were making fully informed choices. If their choices were not informed then their freedom of action was constrained (Green & Tones, 2010).

The vegan participants identified information on consuming or using animal products within a neoliberal ideology that they believed was inaccurate or misleading. Therefore, not only are people not provided the opportunity to think critically but within the current system from a vegan lens, the key health promotion values of equity and empowerment are not upheld. Within public health there is also the belief that "personal gratification should not limit others' equal right to self-actualization" (Green & Tones, 2010, p.33). Within health promotion the "freedom to choose applies only to those objectives that do not militate against the key values of health promotion" (Green and Tones, p. 32). Although from a vegan public health lens implementation of societal level plant-based eating could be argued to be justified, the participants did not advocate for this. Instead, they were mindful of different cultures, circumstances, and scenarios in which people may not choose veganism for themselves. However, the participants did hope that with education and systems change these circumstances would become fewer.

Veganism is about relationships (Giraud, 2021; Torres, 2007; Twine, 2017). As the participants in this research demonstrate veganism influences relationship to self, to humans, and the more-than-human. These relationships are both direct and indirect. Participants note changes in their

everyday lived relationships but also seek change in their distal relationships that are constructed within oppressive systems and result in injustices globally. As a whole, the participants recognize the complexity and inaccuracies in claims of veganism as 'cruelty-free' as identified as well by Harper (2013). There was discussion of the harms that can be incurred to vegans and non-vegans alike when veganism is applied in a single-issue manner, or as a homogenizing dictate. Other authors have criticized the lifestyle application of veganism (Polish, 2016). This dissertation has approached veganism from the discipline of public health, and consequently advocates for systemic change, while also recognizing the value of behaviour change at an individual level.

This research has demonstrated that for the participants veganism enhances their wellbeing. However, it is not without challenges. None of the participants were vegan from birth, and although some were from cultures where vegetarianism is common, to become vegan is to become a member of a distinct subculture. Research has shown that vegans are among the most disliked subculture (MacInnis & Hodson, 2017), yet the participants view veganism as enriching their lives.

In public health we strive to incorporate systems thinking into our policies and practice. Veganism is something that should be considered with interest by public health because of the "win-win-win trifecta" whereby veganism enhances wellbeing of humans, animals, and the environment. However, veganism is complex. Some question whether veganism is an example of people being "good" neoliberal subjects via taking personal responsibility for resolving the injustices they see in the world, or whether veganism is a social movement. Some participants saw veganism as a mechanism through which to interact with the market through supply and demand. Many participants were displeased with how the government provides subsidies to

animal agriculture industries and felt instead that plant-based foods for human consumption should be subsidized.

The vegan participants in this study were all ethically motivated in their veganism. However, many were motivated by multiple factors, elaborating on the win-win-win trifecta, wherein they saw human health, including their own, animal wellbeing, and environmental wellbeing as benefiting from veganism. Some participants began their vegan journey with the trifecta in mind, while for others it developed it over time. There were, however, some participants who said that their own health was not a factor for their veganism. Thus, in the face of challenges vegans had both intrinsic and extrinsic motivators to maintain their veganism. These results suggest maintenance of veganism may come from a place of care.

The following assertions made by Rock et al., (2014) are supported by the findings of this research. Rock et al., (2014) wrote:

> [f]or public health, there are two crucial contributions that arise from research and theory on collectivities. First, people may care just as much if not more about the lives and fates of some non-human beings as they do about human life and health. Second, to be ethical and effective, public health interventions should be attuned to people's emotional and biological connections with non-human beings (p. 342).

Veganism has been identified as a topic of complexity (Giraud, 2021). Exploring the wellbeing of vegans has confirmed Giraud's (2021) assertion that veganism is a process, not a measure of perfection. Furthermore, if we look at veganism as only a diet then oppression and injustices are replicated in "plant-based capitalism" (Giraud, 2021, p. 8). The health promoting nature of veganism found through the results of this dissertation suggest that it is important for people to

take personal actions that they see as resulting in less harm and shifting consumption patterns to be more healthful and sustainable. This can imbue a sense of agency to vegans who may otherwise feel demoralized when trying to influence systems change. The ontological difference between ethical vegans and non-vegans compounds the challenge, when the direction of vegan thought diverges from mainstream non-vegan society.

While vegans may not yet have had great influence on systems change that does not negate the possibility that change may come. Rather than viewing lack of systems change to date as a failure of veganism, if we look at veganism as a process, we can explore where veganism as a movement may fall in that undertaking. To apply the work of Freire (1970/2018) to veganism as a movement suggests that individual vegans may be at the stage of consciousness raising. They have broken away from mainstream worldviews to reveal a different understanding of the nature of reality. Now is the time to bolster support for ethical veganism, and its push beyond food choice alone. Government leadership in the form of policy change is needed. This fundamentally recalls the framing not of food choices but of relationships. In reconstructing relationships, changes in food choice may follow.

This research indicates the determinants of health that influence one's experiences with veganism include: income and social status, education, childhood experiences, social supports, gender, culture and food insecurity.

Structural level changes as suggested by the participants include:

- Changing the school curriculum around food with an emphasis on veganism as a healthy choice. This would help to normalize veganism, potentially leading to lessening barriers of knowledge, relationship strain, frustration and food access.

- Changing agricultural subsidies and developing transitional programming for farms to switch from animal agriculture to plant-based agriculture.

Something that was not mentioned by the participants but is relevant in light of recent federal government announcement of a school food lunch program is providing a vegan option as the default option for the meals provided.

Simply by living a vegan life people are influencing those around them (Torres, 2007). As mentioned, veganism is about relationships (Giraud, 2021; Torres, 2007; Twine, 2017). The participants in this study have demonstrated how they connect human oppression to animal oppression often through animal agriculture/fishing, however they also have concern for oppression in not imposing their ideas on others, and not speaking on behalf of others.

Recent works have indicated a need for continued exploration of gender and veganism (Pirani & Fegitz, 2019). In applying an ecofeminist lens the doctoral researcher attempted to explore issues of gender and power, in particular in Study 2. However, this did not yield results that were expected based on the review of the literature on gender and veganism (Russell, 2023). The doctoral researcher followed the lead of the participants and avoided pushing interview subjects on this line of investigation. This was a way to respect the knowledge and power of the participants who were seen as guiding the interview process with their engagement. Upon reflection the researcher considers these responses by participants as deliberate moves to be more inclusive to all genders and avoid essentialism. This breaking down of boundaries is important to consider within feminist research (Ackerly & True, 2020).

Associations of veganism with health have contributed to individual health as the primary rationale for health veganism. It was unknown how ethical vegans relate to this information.

Even when experiencing food insecurity participants felt their diets were healthy in the long-term, although concerns about meeting nutrition requirements in the short-term were raised. The 'health halo' associated with veganism may be a point of difficulty for some ethical vegans including vegans who live on a low-income.

BMST is an embodied method. Embodied methods help to move beyond the division between the mind and body (Coetzee, 2018). The results of the BMST are interesting to consider because of how the participants moved beyond the nature/culture and human/animal divisions that exist within society in their responses. This raises the question of whether people who are less inclined to have a dualistic worldview may be more inclined to participate in methods that transcend boundaries of this sort. One could also ask whether the inverse could be true that the use of an embodied method may help facilitate the breakdown of other dualisms within participants' conceptualizations.

6.6 Limitations

The authors Beezold et al. (2015) explicated the potential limitation that vegetarians and vegans may be invested in enhancing the image of their ethical choices and may frame their responses to research questions in a way that is favorable to vegetarianism and veganism. It is possible this occurred within this study, however given the average durations of veganism for participants in this research it suggests that the participants found incentive to maintain their veganism aligning with their descriptions of positive wellbeing outcomes.

While this research utilized an ecofeminist lens, the gender analysis was limited because many participants seemed hesitant to engage in discussions of gender. This may be due in part to shifting societal conversations around gender.

The sample size (n=6) for Study 3 was excellent given the method of data collection (BMST), however for a general qualitative study, 6 participant is considered small. This small participant pool was offset by the richness of the data. However, sample size was a limitation for Study 1 and Study 2. Fewer participants who live on a lower income were recruited than desired. Fewer participants who were experiencing food insecurity were recruited than desired. Rather than suggesting something about the size of the population who would meet these criteria, it is more reflective of the study recruitment methods. The doctoral researcher approached some local initiatives that provide food aid to people in need, but these initiatives declined to display or distribute posters about the research to their clientele, and in another instance did not respond to their inquiry. However, other charitable/emergency food initiatives exist in the Waterloo Region, that were not approached with a request to post or distribute recruitment posters, and it is possible they would have been receptive to the research.

In reflecting on the earlier success of the doctoral researcher's master's level community mapping workshop and interviews with people experiencing homelessness, it is necessary to recognize that as a master's student they were very active living and volunteering in the community in which the research took place. In contrast to the doctoral researcher's PhD research recruitment, they did not have the same level of community integration and knowledge to draw upon. The first two years of their doctoral degree took place during the more acute phases of the SARS-CoV-2 pandemic and included public health restrictions. The successful recruitment and participation for their master's research required a very high degree of flexibility and a lot of uncertainty, which was not possible in the same way during their doctoral work. Although the doctoral researcher reached out to some community-based organizations, the doctoral research was not as invested in connecting with more hard-to-reach populations. The

primary question the doctoral research had received about their master's research was how they had engaged the population who took part. While they believe their personality was an important factor, it had to be coupled with a lot of investment in the community.

6.7 Recommendations for Future Work

Further research on veganism and food security is needed, as the results indicate that not all vegans can get the food they need and want for their wellbeing.

While focused on food security, this research has begun to establish some connections between veganism and food sovereignty. Food sovereignty is considered radical (Holt-Giménez, 2017), and ethical veganism is considered radical because it is such a departure from the mainstream model of relationships with the MTHW. To explain how food sovereignty and veganism may overlap requires understanding that in opposition to food sovereignty is food alienation wherein "[f]ood alienation, then, is the disconnect from community, land, and the realities of interdependence of food creation both at the individual, community, and policy level" (Gatson et al., 2022, p.1256). This research demonstrates how the vegan participants were overcoming food alienation, therefore moving towards food sovereignty. For example, in Study 3, the participants do have a strong connection to the land, and MTHW generally, which has deepened with their veganism.

Within the research, participants were concerned with power in food systems, particularly regarding industrial animal agriculture, and this aligns well with the concerns around corporate control from a food sovereignty perspective (Declaration of Nyéléni, 2007). Although Cherry (2006) found social support was important for maintaining veganism, the results of this research extend this to suggest that a vegan community was envisioned by the participants as a way to

move towards collective action, and food system participation, which are also required for food sovereignty (Declaration of Nyéléni, 2007).The participants are trying to resist neoliberal narratives, and this is also something food sovereignty strives to do (Declaration of Nyéléni, 2007).

Gatson et al. (2022) write: "The vast majority of Americans do not have a grounded understanding of where their food fundamentally comes from, nor of the political, economic, and ideological frameworks and practices that form and maintain the current food system". Although a different context, being set in Canada, the participants in this research have a level of awareness of these things. For example, in Study 1 the participants called for change to food relevant policies related to education, and agricultural subsidies, in particular. The participants want policies, processes, and practices to be changed for the benefit of the MTHW, other humans, and themselves.

While vegan households may be making individual level choices they are thinking globally. Gatson et al., (2022) highlight the need for recognition of interdependencies between ecological beings and systems. In rejecting animal products vegans may be re-embedding themselves in ecological systems because they strive to break down speciesist constructions of animals as beneath humanity, instead we are all a part of nature. Therefore, vegans are dismantling hierarchies (Torres, 2007) while recognizing human dependence on plants and Earth systems for survival. However, as they are embedded within systems, there can be reciprocity in human relationships with the MTHW (Lowitt, 2014). Thinking outside the mainstream may lead to engagement with the natural world in a more active way because less is taken for granted, helping to re-embed people within nature. Threats to this embeddedness may include processed foods, which transform food into something unrecognizable as coming from the natural world.

Future research may consider different levels of ecological embeddedness between vegans who consume a whole-foods diets and those who rely on processed alternatives.

6.8 Final Conclusions

For the participants in this research veganism was a form of health promotion for the individual, community and more-than-human world. In particular, participants recognized mental and emotional benefits to self that resulted from their veganism. Being socially and ecologically justice oriented, the participants envisioned wide-reaching benefits from increased levels of veganism. However, the participants recognized limitations to veganism and did not want veganism to be imposed upon others in a neocolonial manner. Rather the participants thought education about animal agriculture and vegan cooking, and increased accessibility and affordability of vegan foods would be helpful to enhance accessibility of veganism for those who choose to become vegan.

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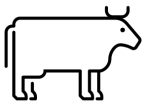
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Appendices

Appendix A - Recruitment Poster for Study 1 and Study 2

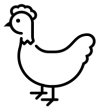
UNIVERSITY OF WATERLOO | FACULTY OF HEALTH School of Public Health Sciences

Have you been Vegan for at least 1 year?



Participants Needed for Research on

Veganism



We are seeking vegan volunteers to take part in a study of veganism, wellbeing, food security, and connection to nature.
To participate you must be at least 18 years old.
If you volunteer for this study your participation will consist of your choice of a:

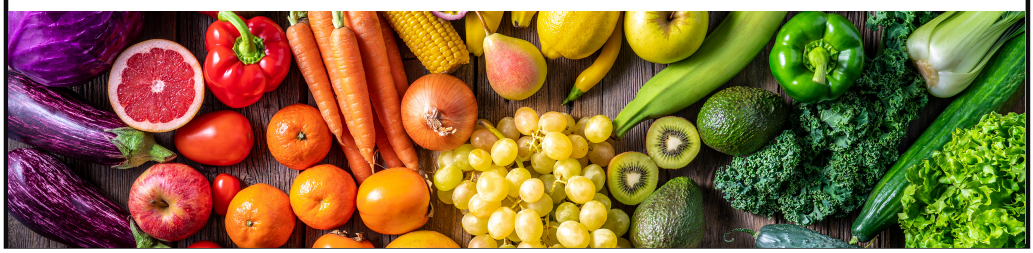
Focus Group and/or Interview

Approximate Time Commitment:
Focus Group =2 hours
Interview = 1-2 hours

In appreciation for your time, you will receive $25 per Focus Group/Interview.

For more details about this study, and to learn how you can take part, please contact:
Julia Russell, Faculty of Health at:
Phone: ###-###-####
Email: julia.russell@uwaterloo.ca

This study has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Board



Appendix B - Recruitment Poster for Study 3

UNIVERSITY OF WATERLOO | FACULTY OF HEALTH School of Public Health Sciences

Participants Needed for Research on

Veganism

We are seeking volunteers to take part in a study of veganism, wellbeing, food security, and connection to nature. To participate you must be at least 18 years old, have been vegan for a minimum of 1 year, have an interest in creating art, and feel a strong connection to nature.

If you volunteer in this study your participation will consist of an:



Participation in an interview will take approximately 1-2 hours.
Participation in an Arts-based Workshop (Body-Map Storytelling including Focus Group) will take approximately 8 hours/day for 2 days. Lunch and snacks will be provided!
In appreciation for your time, you will receive $25/Interview.
You will receive $100 per day of the Body-Map Storytelling (including Focus Group)

For more details about this study, and to learn how you can take part, please contact:
Julia Russell, Faculty of Health at:
Phone: ###-###-####
Email: julia.russell@uwaterloo.ca

This study has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Board

Appendix C - Demographics Form

Demographic Information Form

We ask that a copy of this form is completed by each participant.

Your answers will help give context to the results. Your answers will also help us to position our results in relationship to other studies that have been done on veganism. Thank you for taking the time to complete this form.

How many years have you been a vegan? _____

Aside from your ethical reasons, do you have other motivations for veganism?

_____

_____

Were you vegetarian before you went vegan? _____

If yes, what kind of vegetarian? (i.e. lacto-ovo)

_____

If yes, how long were you vegetarian before you became vegan? _____

How old are you? _____

What is your gender? (i.e. non-binary, woman, man, etc.) _____

What is your sexuality? (i.e. bisexual, lesbian, heterosexual, gay, etc.) _____

What is your race? (i.e. Indigenous, white, mixed race, etc.) _____

What is the highest level of education have you completed so far? _____

Are you a student? _____

Is your household income, low, medium or high? _____

Thank you again for completing this demographic information form!

Appendix D - Study 1 Focus Group Question Guides

Food Security Focus Groups

1. What has been your experience of being food secure and vegan?
    a. How does being food secure impact your wellbeing?
2. What would being food insecure look like for you?
3. What would you like people to know about food security and veganism?
4. What relationship do you see between veganism and food security?
    a. Do you think being a vegan influences your level of food security? Please explain
    b. Do you think there is a lack of understanding among non-vegans for vegans who are food insecure?
        i. Do you think people make assumptions about vegans and food security?
        ii. How does that impact your wellbeing?
    c. Do you think there is a lack of understanding among vegans for vegans who are food insecure?
    d. Have people ever said that you should not be a vegan if you are food insecure?
        i. What is your response to this statement?
        ii. Do you ever feel outside pressure to abandon your veganism?
5. How do you think vegan food security could be improved?
6. What is unique about being food insecure and vegan?
7. How is vegan food security linked to food security in your city or region in general?
    a. Do you envision a relationship between your own veganism and food security more broadly? In your community? In the world?

8. Is there anything else you would like to share before we end the focus group, that you haven't yet had the chance to discuss?

Food Insecurity Focus Groups

1. What would being food secure look like for you?
2. What has been your experience of being food insecure and vegan?
    a. How does being food insecure impact your wellbeing?
3. What would you like people to know about food security and veganism?
4. What relationship do you see between veganism and food security?
    a. Do you think being a vegan influences your level of food security, please explain?
    b. Do you think there is a lack of understanding among non-vegans for vegans who are food insecure?
        i. Do you think people make assumptions about vegans and food security?
        ii. How does this impact your wellbeing?
    c. Do you think there is a lack of understanding among vegans for vegans who are food insecure?
    d. Have people ever said that you should not be a vegan if you are food insecure?
        i. What is your response to this statement?
        ii. Do you ever feel outside pressure to abandon your veganism?
    e. Does being food insecure ever make you feel like a "bad vegan"? Please explain
5. How do you think vegan food security could be improved?
6. What is unique about being food insecure and vegan?
7. How is vegan food security linked to food security in your city or region in general?

    a. Do you envision a relationship between your own veganism and food security more broadly? In your community? In the world?

8. Is there anything else you would like to share before we end the focus group, that you haven't yet had the chance to discuss?

Appendix E - Study 2 Semi-structured Interview Guide

1. What does your life as a vegan look like on a day-to-day basis?
    a. In what ways, if any, does it differ from before you became vegan?
2. Tell me about what veganism means to you?
    a. Why is veganism something you want for yourself?
3. What is the ultimate goal, or goals, that you see veganism achieving?
4. Do you think there are limitations or barriers to veganism?
    a. What can be done about these limitations and/or barriers?
    b. In what ways do the limitations or barriers you have identified impact your wellbeing?
5. How has veganism influenced your wellbeing, if at all?
    a. Do you have any concerns about veganism and wellbeing?

       PROMPT: This may include for yourself or for others
        i. What do you think about the increasing popularity of veganism for health?
        ii. Does veganism for health impact your own experience as a vegan?
6. Do you believe there is a gendered impact on veganism?
    a. How is your own gender connected to your veganism?
    b. Does your gender play a role in the level of acceptance you experience as a vegan?
    c. How do people usually react when they learn you are a vegan?
        i. How does this impact you?
7. What challenges do you face to your veganism?
    a. How do you react to, or deal with, these challenges?

b. Do these challenges impact your wellbeing? Please explain.

c. Why do you maintain your veganism in the face of these challenges?

d. What would it take for you to have an improved experience of veganism where you live?

e. How is your experience of veganism different than it would be if you didn't have these challenges?

8. Do you feel like you are a part of the vegan community?

a. Have you ever felt left out of the vegan community?

b. Is veganism inclusive enough for everyone?

9. What connections have you made between your own experience of veganism and your income?

a. If you live on a low income, can you explain what living on a low-income as a vegan is like for you?

i. How do people usually react when they learn you are a vegan living on a low-income?

b. Do you feel judged about how you spend your money related to veganism?

i. What impact, if any, does that have on you?

c. Are you able to get the food you need and want for your wellbeing?

i. What does that look like for you?

10. Have you experienced discrimination as a vegan? If so, what did that look like?

a. Why do you think this occurred?

b. What impact did this have on your wellbeing?

11. Do you ever find it is necessary to break aspects of your veganism?

a. Why is this so?

b. How does this make you feel?

c. What impact does this have on your experience of veganism?

12. Do you ever feel like a “bad vegan”? Can you please explain why or why not?

13. How does being a vegan add value to your life experience?

a. Can you share with me, any perks there are to being a vegan?

14. What do you wish the world knew about veganism?

a. How does the fact that people in general don’t know or accept this impact you personally?

15. Is there anything else you would like to share before we end the interview, that you haven’t yet had the chance to discuss?

Appendix F - Letter of Information and Consent Form for Study 1

Information Letter For Participants

Focus Group

Study Title: Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

Faculty Supervisor:

Dr. Kelly Skinner, University of Waterloo, Faculty of Health, School of Public Health Sciences. Telephone: 519-888-4567 x48164 Email: kskinner@uwaterloo.ca

Student Investigator:

Julia Russell, MSc, University of Waterloo, Faculty of Health, School of Public Health Sciences. Email: julia.russell@uwaterloo.ca

To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

Invitation to Participate:

You are invited to participate in a study exploring vegans' wellbeing, food security and connections to the more-than-human world (the natural world/environment). This is important because increasing numbers of people are becoming vegan but knowledge of their holistic wellbeing is still limited. This research is being undertaken as a component of Julia Russell's doctoral degree.

I. Your responsibilities as a participant

What does participation involve?

As a participant you will be asked to complete a short demographic questionnaire (age, gender, etc.), and take part in a Focus Group. The Focus Group will be audio recorded. In order to participate in the Focus Group, you must consent to be audio-recorded. The Focus Group will take approximately 2 hours, and will be held at a time that is mutually convenient for the group participants. The Focus Group will be held at the University of Waterloo. You will be assigned to a focus group based on the result of a screening process regarding food security. There will be focus groups for participants who pass the screening as food secure and focus groups for participants who pass the screening as food insecure.

All focus groups will ask questions related to experiences of food in/security, and opinions on veganism and food security. For example, you may be asked: What relationship do you see between veganism and food security?

Participants: People are eligible to participate in this research if they are 18 years of age or older, and have self-identified as a vegan for at least 1 year.

II. **Your rights as a participant:**

Is participation in the study voluntary?

Yes, your participation in this study is voluntary. You may withdraw from the study at any time before December 31, 2023. To drop out simply tell the researcher you no longer wish to participate. If you drop out of the study the data you have provided will not be used for analysis. It may not be possible to remove all of your data given the group nature of the Focus Group. There is no penalty to participants who choose to withdraw from the study. It will not be possible to drop out from the study after results have been submitted for publication. At any time, you may leave the Focus Group, or choose to skip a question, or ask the researcher a question.

Will I receive anything for participating in the study?

Participants will receive an honorarium of $25 for participation in a Focus Group. Participants who drop out of the research will still receive an honorarium.

What are the possible benefits of the study?

Participation in this study may not provide any personal benefit to you. However, the study will benefit society in the following way: This study will help researchers to understand the overall wellbeing of vegans, including mental, spiritual and physical components among other elements. This current research may contribute to understanding the successes, as well as barriers that are faced by vegans. This may contribute to more people being able to maintain their veganism.

What are the risks associated with the study?

There are minimal risks associated with participating in this research. Some questions require you to reflect on yourself and your own ideas. In addition, participation in the Focus Group doesn't guarantee privacy or protection from some social repercussions (e.g. being judged by peers). However, all participants will be asked to respect the confidentiality of other participating Focus Group members and not share the content of the Focus Group discussion or names of other participants.

Should you experience discomfort and require additional support, we are providing contact information for support services:

Waterloo Region:	Phone: Here 24 Seven Phone: 1-844-437-3247
	Website: www.here247.ca
London:	Canadian Mental Health Association
	Phone: 519-434-9191
	Website: https://cmhamiddlesex.ca/

Will my identity be known?

The research team and the other participants in the Focus Group will know what you said.

Will my information be kept confidential?

Your name and contact information will be kept confidential and will be stored separately from any data that you provide the research team. All participants are asked not to share details of the participants and what they said, with others, but we cannot guarantee other participants will

adhere to this. Hard copies of data will be stored in locked filing cabinets, including the consent forms, demographic surveys, and transcripts. Electronic data (including audio recordings) will kept on a password protected external hard drive and the University of Waterloo's secure server. Audio recordings will be deleted from the recorder immediately upon transfer to the secure server/external hard drive. Any data that will be stored on the hard drive will be encrypted. Audio recorded data will be destroyed at the end of data analysis (Anticipated date: January 2025). All other data will be kept for a minimum of seven years and then destroyed according to University of Waterloo Policy. Only members of the research team will be able to access the study data.

The results from this study may be used for publication purposes, in presentations and other displays of information. However, data will be presented so that individuals cannot be identified. The results will be available to you by email or mail if requested.

III. Questions, comments, or concerns

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #44397). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact Julia Russell by email at: julia.russell@uwaterloo.ca

Julia Russell, MSc

School of Public Health Sciences

Faculty of Health

University of Waterloo

julia.russell@uwaterloo.ca

Kelly Skinner, PhD

School of Public Health Sciences

Faculty of Health

University of Waterloo

kskinner@uwaterloo.ca

We appreciate that you have taken the time to consider participating in this study.

Consent Form

By providing your consent, you are not waiving your legal rights or releasing the investigators or involved institution from their legal and professional responsibilities.

Title of the study: Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

I have read the information presented in the information letter about a study conducted by Dr. Kelly Skinner and Julia Russell; School of Public Health Sciences, Faculty of Health, University of Waterloo.

I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details.

I was informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #44397). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

For all other questions contact either Julia Russell by email at julia.russell@uwaterloo.ca or Dr. Kelly Skinner at 519-888-4567 x48164 or by email at kskinner@uwaterloo.ca.

Email or mailing address to send a copy of the results (optional)

Please mark the following boxes to indicate your agreement with the statements.

☐ I am aware the Focus Group is being audio recorded to ensure accurate transcription and analysis.

☐ I agree to the use of anonymous quotations in any thesis, publication, and presentation that comes from this research.

☐ I agree of my own free will to participate in this study.

Participant name: _____

Participant signature: _____ Date: _____

Researcher/Witness signature: _____ Date: _____

Appendix G - Letter of Information and Consent Form for Study 2

Information Letter For Participants

Interview

Study Title: Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

Faculty Supervisor:

Dr. Kelly Skinner, University of Waterloo, Faculty of Health, School of Public Health Sciences. Telephone: 519-888-4567 x48164 Email: kskinner@uwaterloo.ca

Student Investigator:

Julia Russell, MSc, University of Waterloo, Faculty of Health, School of Public Health Sciences. Email: julia.russell@uwaterloo.ca

To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

Invitation to Participate:

You are invited to participate in a study exploring vegans' wellbeing, food security and connections to the more-than-human world (the natural world/environment). This is important because increasing numbers of people are becoming vegan but knowledge of their holistic wellbeing is still limited. This research is being undertaken as a component of Julia Russell's doctoral degree.

I. Your responsibilities as a participant

What does participation involve?

As a participant you will be asked to complete a short demographic questionnaire (age, gender, etc.), and take part in an Interview. The Interview will be audio recorded. The Interview will take approximately 60 minutes. The Interview will be held at time and location of your choice.

The interview will ask questions about your experiences as a vegan. For example, you may be asked: How has veganism influenced your wellbeing, if at all?

Participants: People are eligible to participate in this research if they are 18 years of age or older, and have self-identified as a vegan for at least 1 year.

II. Your rights as a participant:

Is participation in the study voluntary?

Yes, your participation in this study is voluntary. You may withdraw from the study at any time before December 31, 2023. To drop out simply tell the researcher you no longer wish to participate. If you drop out of the study the data you have provided will not be used for analysis instead it will be destroyed. There is no penalty to participants who choose to withdraw from the

study. It will not be possible to drop out from the study after results have been submitted for publication. At any time, you may stop the interview, or choose to skip a question, or ask the researcher a question.

Will I receive anything for participating in the study?

Participants will receive an honorarium of $25 for participation in the interview. Participants who drop out of the research will still receive an honorarium.

What are the possible benefits of the study?

Participation in this study may not provide any personal benefit to you. However, the study will benefit society in the following way: This study will help researchers to understand the overall wellbeing of vegans, including mental, spiritual and physical components among other elements. This current research may contribute to understanding the successes, as well as barriers that are faced by vegans. This may contribute to more people being able to maintain their veganism.

What are the risks associated with the study?

There are minimal risks associated with participating in this research. Some questions require you to reflect on yourself and your own ideas. The topics of wellbeing, discrimination and income will be discussed in the interview. However, you may skip any question you do not want to answer.

Should you experience discomfort and require additional support, we are providing contact information for support services:

Waterloo Region: Phone: Here 24 Seven Phone: 1-844-437-3247

Website: www.here247.ca

London: Canadian Mental Health Association

Phone: 519-434-9191

Website: https://cmhamiddlesex.ca/

Will my identity be known?

The research team will know what you said during your interview.

Will my information be kept confidential?

Your name and contact information will be kept confidential and will be stored separately from any data that you provide the research team. Hard copies of data will be stored in locked filing cabinets, including the consent forms, demographic surveys, and transcripts. Electronic data (including audio recordings) will kept on a password protected hard drive and the University of Waterloo's secure server. Audio recordings will be deleted from the recorder immediately upon transfer to the secure server/external hard drive. Any data that will be stored on an external hard drive will be encrypted. Audio recorded data will be destroyed at the end of data analysis (Anticipated date: January 2025). All other data will be kept for a minimum of seven years and then destroyed according to University of Waterloo Policy. Only members of the research team will be able to access the study data.

The results from this study may be used for publication purposes, in presentations and other displays of information. However, data will be presented so that individuals cannot be identified. The results will be available to you by email or mail if requested.

III. Questions, comments, or concerns

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #44397). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact Julia Russell by email at: julia.russell@uwaterloo.ca

Julia Russell, MSc

School of Public Health Sciences

Faculty of Health

University of Waterloo

julia.russell@uwaterloo.ca

Kelly Skinner, PhD

School of Public Health Sciences

Faculty of Health

University of Waterloo

kskinner@uwaterloo.ca

We appreciate that you have taken the time to consider participating in this study.

Consent Form

By providing your consent, you are not waiving your legal rights or releasing the investigators or involved institution(s) from their legal and professional responsibilities.

Title of the study: Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

I have read the information presented in the information letter about a study conducted by Dr. Kelly Skinner and Julia Russell; School of Public Health Sciences, Faculty of Health, University of Waterloo.

I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details.

I was informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #44397). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

For all other questions contact either Julia Russell by email at julia.russell@uwaterloo.ca or Dr. Kelly Skinner at 519-888-4567 x48164 or by email at kskinner@uwaterloo.ca

Email or mailing address to send a copy of the results (optional)

Please mark the following boxes to indicate your agreement with the statements.

☐ I agree to the Interview being audio recorded to ensure accurate transcription and analysis.

☐ I agree to the use of anonymous quotations in any thesis, publication, and presentation that comes from this research.

☐ I agree of my own free will to participate in this study.

Participant name: _____

Participant signature: _____ Date: _____

Researcher/Witness signature: _____ Date: _____

Appendix H - Letter of Information and Consent Form for Study 3

Information Letter For Participants

Body-Map Storytelling (including Focus Group), and Interview

Study Title: Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

Faculty Supervisor:

Dr. Kelly Skinner, University of Waterloo, Faculty of Health, School of Public Health Sciences.

Telephone: 519-888-4567 x48164 Email: kskinner@uwaterloo.ca

Student Investigator:

Julia Russell, MSc, University of Waterloo, Faculty of Health, School of Public Health Sciences.

Email: julia.russell@uwaterloo.ca

To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

Invitation to Participate:

You are invited to participate in a study exploring vegans' wellbeing, food security and connections to the more-than-human world (the natural world/environment). This is important because increasing numbers of people are becoming vegan but knowledge of their holistic wellbeing is still limited. This research is being undertaken as a component of Julia Russell's doctoral degree.

I. Your responsibilities as a participant

What does participation involve?

As a participant you will be asked to complete a short demographic questionnaire (age, gender etc.), take part in an arts-based workshop (called Body-Map Storytelling, which includes a focus group) and an interview. The Body-Map Storytelling Focus Group and interview will be audio recorded. In order to participate in the Body-Map Storytelling, you must consent to be audio-recorded, however, participants may take part in the interview without being audio-recorded. Participation in the Body-Map Storytelling will take approximately 16 hours split over 2 days of 8 hours each, from 9am-5pm. Breaks will be provided throughout the days, including a 30 minute lunch break each day. The interview will take approximately 60 minutes and will occur a soon as possible within a few weeks of the completion of the Body-Map Storytelling. The Body-Map Storytelling will be held at the University of Waterloo, while the interview will be held at a time and location of your choice. The Body-Map Storytelling is an activity that will be completed individually but as a part of a small group (up to 8 participants). The interview will be an individual interview with the researcher.

During the Body-Map Storytelling you will be asked to create art (a "body-map", key, and testimonio) related to how you feel about your connection to the natural world. You will be asked to explain your body-map to the other group members and the researchers, who may then ask you questions about your artistic creation. In the interview you will be asked follow-up questions related to your process of artistic creation and your feelings towards the natural world. A question you may be asked is: You identified yourself as having a strong connection to the natural world, can you tell me why that is?

Participants: People are eligible to participate in this research if they are 18 years of age or older, and have self-identified as a vegan for at least 1 year. Participants must also identify as having a strong connection to the natural world, and an interest in creating art.

II. Your rights as a participant:

Is participation in the study voluntary?

Yes, your participation in this study is voluntary. You may withdraw from the study at any time before September 1, 2023. To drop out simply tell the researcher you no longer wish to participate. If you drop out of the study the data you have provided will not be used for analysis. It may not be possible to remove all of your data given the group nature of the Body-Map Storytelling. There is no penalty to participants who choose to withdraw from the study. It will not be possible to drop out from the study after results have been submitted for publication. At any time, you may leave the Body-Map Storytelling and/or stop the interview, or choose to skip a question, or ask the researcher a question.

Will I receive anything for participating in the study?

Participants will receive an honorarium of $100/day for participation in the Body-Map Storytelling and $25 for participation in an interview. Participants who drop out of the research will still receive an honorarium. The amount you will receive will correspond to the stage of participation you have attended (The amount you receive will be pro-rated). For example, if you attend only the first half of the first day of the Body-Map Storytelling you will receive $100.

What are the possible benefits of the study?

Participation in this study may not provide any personal benefit to you. However, the study will benefit society in the following way: This study will help researchers to understand the overall wellbeing of vegans, including mental, spiritual and physical components among other elements. This current research may contribute to understanding the successes, as well as barriers that are faced by vegans. This may contribute to more people being able to maintain their veganism.

What are the risks associated with the study?

There are minimal risks associated with participating in this research. This is because some questions require you to reflect on the state of the more-than-human world and the impact that has had on you. In addition, participation in the Body-Map Storytelling doesn't guarantee privacy or protection from some social repercussions (e.g. being judged by peers). However, all participants will be asked to respect the confidentiality of other participating Body-Map Storytelling members and not share the content of the Body-Map Storytelling or names of other participants. Should you experience discomfort and require additional support, we are providing contact information for support services:

Waterloo Region: Phone: Here 24 Seven Phone: 1-844-437-3247

Website: www.here247.ca

Will my identity be known?

The research team and the other participants in the Body-Map Storytelling will know what art you created and what you said during the Body-Map Storytelling. Only the research team will know what you said in your interview.

Will my information be kept confidential?

Your name and contact information will be kept confidential and will be stored separately from any data that you provide the research team. All participants are asked not to share details of the participants and what they said, with others, but we cannot guarantee other participants will adhere to this. Hard copies of data will be stored in locked filing cabinets, including the consent forms, demographic surveys, and transcripts. Electronic data (including audio recordings) will be kept on password a protected external hard drive and the University of Waterloo's secure server. Audio recordings will be deleted from the recorder immediately upon transfer to the secure server/external hard drive. Any data that will be stored on an external hard drive will be encrypted. Audio recorded data will be destroyed at the end of data analysis (Anticipated date: January 2025). All other data will be kept for a minimum of seven years and then destroyed according to University of Waterloo Policy. Only members of the research team will be able to access the study data.

The results from this study may be used for publication purposes, in presentations and other displays of information. However, data will be presented so that individuals cannot be identified. The results will be available to you by email or mail if requested.

III. Questions, comments, or concerns

Has the study received ethics clearance?

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #44397). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

Who should I contact if I have questions regarding my participation in the study?

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact Julia Russell by email at: julia.russell@uwaterloo.ca

Julia Russell, MSc

School of Public Health Sciences

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Kelly Skinner, PhD

School of Public Health Sciences

Faculty of Health

University of Waterloo

kskinner@uwaterloo.ca

We appreciate that you have taken the time to consider participating in this study.

Consent Form

By providing your consent, you are not waiving your legal rights or releasing the investigators or involved institution from their legal and professional responsibilities.

Title of the study: Exploring the Wellbeing and Food Security of Ethical Vegans through the Human and More-than-Human World

I have read the information presented in the information letter about a study conducted by Dr. Kelly Skinner and Julia Russell; School of Public Health Sciences, Faculty of Health, University of Waterloo.

I have had the opportunity to ask questions related to the study and have received satisfactory answers to my questions and any additional details.

I was informed that participation in the study is voluntary and that I can withdraw this consent by informing the researcher.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Board (REB #44397). If you have questions for the Board contact the Office of Research Ethics, at 1-519-888-4567 ext. 36005 or reb@uwaterloo.ca.

For all other questions contact either Julia Russell by email at julia.russell@uwaterloo.ca or Dr. Kelly Skinner at 519-888-4567 x48164 or by email at kskinner@uwaterloo.ca

Email or mailing address to send a copy of the results (optional)

Please mark the following boxes to indicate your agreement with the statements.

☐ I am aware the Body-Map Storytelling, including Focus Group, will be audio recorded to ensure accurate transcription and analysis.

☐ I agree to my interview being audio recorded to ensure accurate transcription and analysis.

☐ I agree to the use of anonymous quotations in any thesis, publication, and presentation that comes from this research.

☐ I agree the researcher may keep the body-map, testimonio and key that I have created at the Body-Map Storytelling workshop. The map, testimonio and key may be used in any thesis, publication, and presentation that comes from this research.

☐ I agree of my own free will to participate in this study.

Participant name: _____

Participant signature: _____ Date: _____

Researcher/Witness signature: _____ Date: _____

Appendix I - Study 3 BMST Prompts, Focus Group Questions, Interview Guide

Prompts for Body-Map Storytelling Workshop

Divide the outline of your body in half – from the top of your head down to your feet.

For each prompt or question please draw/paint/create

Body-Map Storytelling

1. At the bottom of your canvas, on the left-hand side please draw "Where you come from" (From Lys et al., 2018, p. 1189)
2. At the bottom of your canvas, on the right-hand side please draw how you are connected to the more-than-human world.
3. Near the top of your canvas, beside your head, on the left-hand side, please draw a symbol, or symbols, to represent what comes to mind, when you think about the "more-than-human world"
4. Near the top of your canvas, beside your head, on the right-hand side, please draw a symbol, or symbols, to represent what comes to mind, when you think about the state of the more-than-human world.
5. Near the middle of the canvas, on the right-hand side outside of your body-outline please draw what you feel related to the more-than-human world.
6. Near the middle of the canvas, on the left- hand side outside of your body-outline please draw how ecological change impacts you.

Prompt: Consider how you feel in your head/ heart/ spirit/ body.

7. On the left-hand side within your body outline please draw:

How did you feel related to the more-than-human world before you became a vegan?

Prompt: This could be mentally/emotionally/spiritually/physically

Or, in your head, in your heart, in your spirit, in your body

8. On the right-hand side within your body outline please draw:

   How do you feel now that you live your life as a vegan related to the more than human world?

Prompt: This could be mentally/emotionally/spiritually/physically

Or, in your head, in your heart, in your spirit, in your body

Other Prompts:

Closing Activity – Day 1

1. Each participant thinks of a new idea or realization they have made through the process of working on their body-maps today.
2. As a group, we will share these new ideas and realizations with one another.

Individual Presentations

1. Each participant presents their Body-Map to the group and the group and researcher(s) may ask questions about the map.

Focus Group Discussion

Focus Group Discussion Part 1

1. – *What was similar and different across the maps?*

Focus Group Discussion Part 2

2. *– Anything missing from the maps?*
3. *-What do you want others to know?*

Closing Activity – Day 2

1. Everyone picks one word to sum up the connection to the more-than-human world they have reflected upon for this workshop.
2. Each person in turn shares their word with the group.

Each person then has the opportunity to comment on their own, or someone else's, choice of word

Body-Map Storytelling Semi-Structured Interview Questions

1. Looking back on your body-map what story do you think it tells overall?
    a. Is this the story you thought you would tell? If not, how does it differ?
2. Reflecting on the BMST workshop, was there anything that you wanted to share that you didn't have the chance to?
3. Can you tell me why you have chosen to use the colours you have used on your Body-Map?
4. What other ways have you used the elements of design to signify something within your map? *(Other elements of design include: line, shape, form, space, texture, proportion, etc.)*

5. You identified yourself as having a strong connection to the more-than-human world, can you tell me why you have this strong connection?
6. Can you tell me about how you feel in relationship to different elements of the more-than-human world? (Such as animals? Plants? Water?)
    a. Does this relationship influence your veganism in any way?
    b. Does this relationship influence your wellbeing in any way?
7. How do you relate to where you are from and what impact does that have on you?
8. How significant is your time spent in nature/with the more-than-human world?
    a. What happens to you when you spend your time in this place?
    b. In what ways does time spent in nature/with the more-than-human world relate to your experience of veganism?
9. Is there anything you do to try and mitigate the effects of ecological change on yourself? What effects do these actions have?
10. Is there anything else you would like to share before we end the interview, that you haven't yet had the chance to discuss?

Appendix J - Photographs of the Body-maps

Figure 18

Participant 3001's Body-map

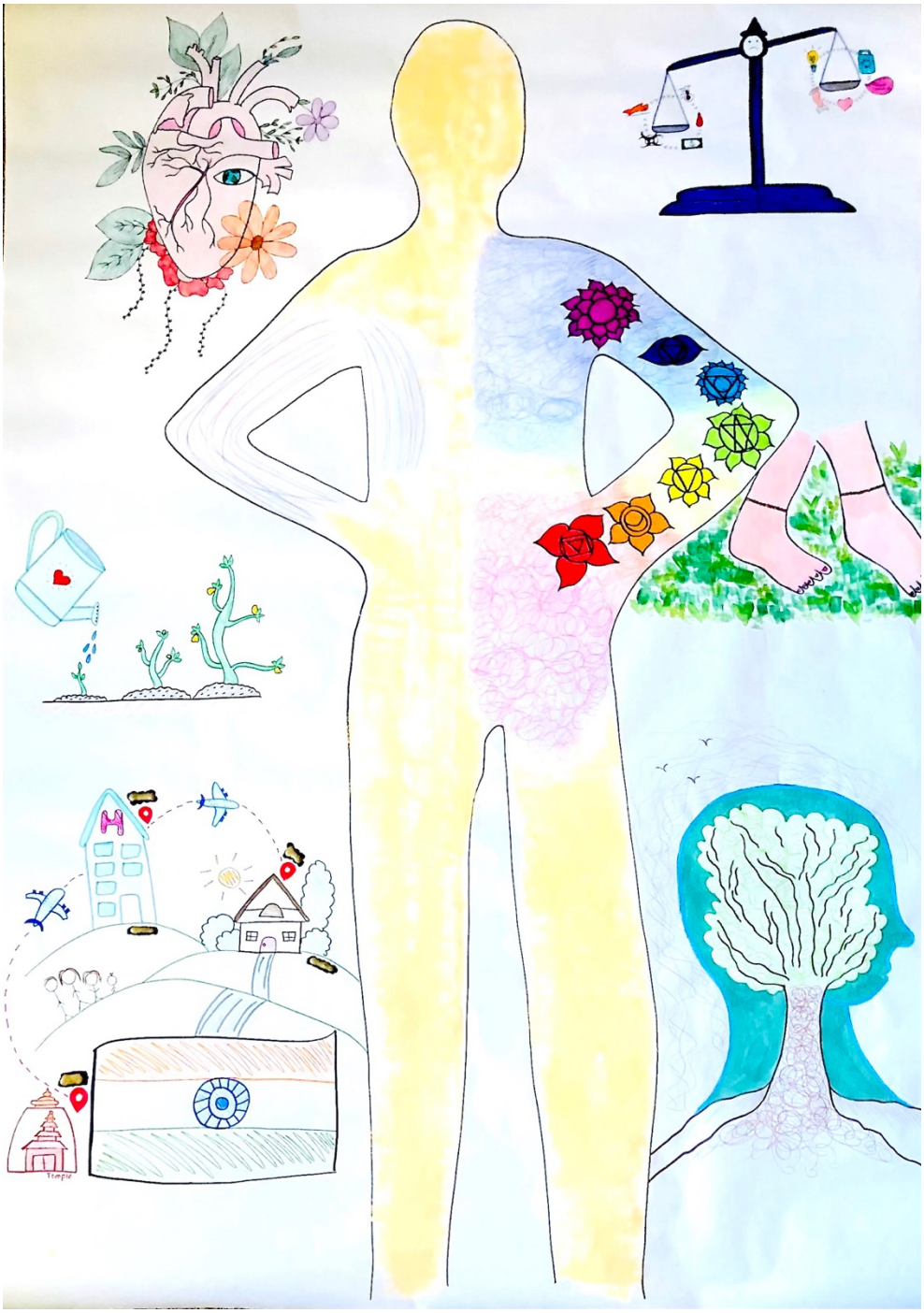


Figure 19

Participant 3002's Body-map



Figure 20

Participant 3003's Body-map



Figure 21

Participant 3004's Body-map



Figure 22

Participant 3005's Body-map

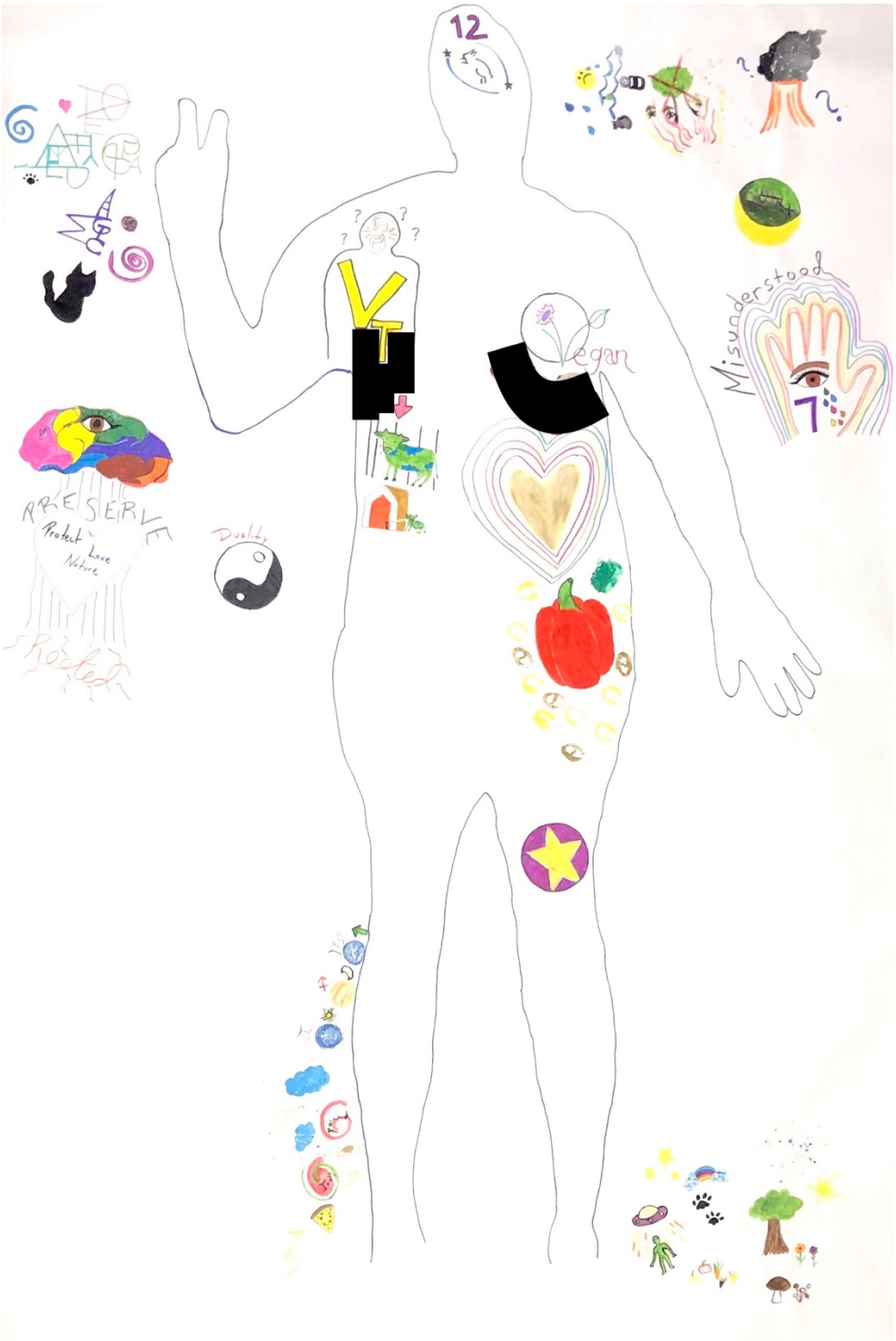


Figure 23

Participant 3006's Body-map



Appendix K - Study Summaries

Veganism and Food Security

Overview

Using a series of four focus groups, this research explored the participants' experiences and ideas around food security. This research addressed two questions:

1. How do vegans view current and future food security?
2. What is it like to be vegan and food secure or vegan and food insecure?

Veganism: Living without using animals for food, entertainment, clothing, etc.

Food Security: "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO, 1996, para 13).

Community Food Security: "a situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (Hamm & Bellows, 2003, p. 37).

Participants

16 participants took part in this research.

- All vegan
  - Ethically motivated
  - Average time vegan ~ 9.5 years
- 3 Focus Groups had food secure participants (n=13)
- 1 Focus Group had food insecure participants (n=3)
- 10 women, 6 men
- 12 white, 2 South Asian, 1 East Asian

Findings

The participants described how accessing vegan foods was not always easy, even for those participants who were food secure. However, being food secure and vegan is easier when you have:

- The ability to make your own food
- Access to fresh food
- Access to different types of food retailers
- The ability to buy in bulk
- Cooking and food storage facilities
- Supportive family
- Enjoyment of your food

Participant Quotes

And I think that if everyone ate like me then food security would be better [...] It's not possible for everyone in the world to live like they're Canadians, it's just not. If we want everyone in the world to be on an equal playing field, it would mean decreasing our standard of living. The luxuries we are able to have, is not possible for 8 billion people, but it is possible to feed 8 billion people and it makes the most sense to do it with a vegan diet. (Participant 1011, Focus Group 3)

Like it's better, like healthier for our environment to eat vegan diet, which impacts all of us in the community. Right, like. So environmental issues impact all of us. And usually people who are already vulnerable already it impacts them the most. (Participant 1008, Focus Group 2)

I was raised with a parent who cooked with meat at the centre of the plate, right. So, I kinda had to forget everything I knew previously and cook a whole new way. (Participant 1002, Focus Group 1)

Well on the emotional side there's a lot more worry, particularly I mean starting off the week, the shop, we're quite elated because there's a lot of food available and then halfway through the week then there's a lot less food available and ah one has to start thinking how you're gonna put this together too. (Participant 1016, Focus Group 4)

They don't have the luxury of making those meal choices and our society is so centred around meat and it, and dairy products. That the default is to be an omnivore. [...] Makes the choice for you if you don't have the luxury to make it yourself. (Participant 1011, Focus Group 3)



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The participants believed veganism would enhance food security, but they thought non-vegans would disagree with this conclusion. The participants thought if it was widely adopted, veganism could improve food security for individuals and communities around the world. Participants thought vegans must look out for themselves to facilitate their own food security, because veganism is valued by participants but is not valued in mainstream society. Therefore, veganism may not be considered when food security issues arise.

There is no one-size-fits-all vegan diet. Participants' experiences aligned with the maxim that food may be nutritious, easy to prepare, or inexpensive, but it was uncommonly all three of these things.

Vegan diets can have different financial costs and can affect those eating them in different ways. For the participants, growing or harvesting one's own food can be a hobby if one is food secure, it may be a seen as a necessity if one has less money.

Participants acknowledged that food insecurity negatively impacts wellbeing. However, they also explained compromising one's ethics would also cause harm. By explaining this, the participants in the food insecure focus group brought important issues of mental and emotional wellbeing to the discussion of food security and insecurity.

To be ethical, to be vegan, to be clever in your food consumption, to like, it's so much more work. (Participant 1014, Focus Group 4)

The most food secure people are able to be vegan and the most food insecure people have to be vegan. And so existing on two ends of that extreme I do think are unique. It's almost this horseshoe effect. (Participant 1013, Focus Group 3)

[...] Because yes, you're right, the nut milk, all the nut cheeses and all meat analogs and things like that are very expensive. And they would, if you're feeding a large family be very expensive to maintain. But like you said, if you're using those basic ingredients, things that don't come with a list of ingredients on the package [...] Like your rice, like your beans, vegetables, um, then food security is much easier to attain.
(Participant 1012, Focus Group 3)

Importance

Together veganism and food security have been understudied. However, we need to understand the experiences of vegans as more people become vegan and if veganism is to be a sustainable choice for improved wellbeing for people, animals, and the environment.

The results of this research demonstrate that people experiencing different levels of food security have ethical concerns around food and the use of animals for human purposes. It is important to recognize that these concerns are valid irrespective of a person's socioeconomic status.

All people should be food secure and choice and cultural appropriateness are important elements of food security. Veganism is a sub-culture, and it should therefore be considered in future food security planning and initiatives. Consideration of vegan needs is important to ensure vegans can be provided for in different settings and can access support when needed while maintaining their ethical values.

References:
FAO. (1996). Rome Declaration on World Food Security. https://www.fao.org/4/w3613e/w3613e00.htm

Hamm, M.W. & Bellows, A.C. (2003). Community food security and nutrition educators. *Journal of Nutrition Education and Behaviour, 35,* 37-43

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Veganism and Wellbeing

Overview

Through data collected via 26 interviews, this research explored the participants' wellbeing as vegans. This research addressed two questions:

1. How does veganism contribute positively to the lives of vegans?
2. What barriers do vegans face that may influence their wellbeing?

Participants

26 participants took part in this research.

- All vegan
  - Ethically motivated
  - Average time vegan ~ 7 years
- Age range: 18-63, average age: 36 years
- 20 women, 6 men
- 21 white, 5 Persons of Colour and/or mixed-race

Findings

As a result of their veganism participants believed they experienced wellbeing benefits. These benefits included improved mental, emotional, and physical wellbeing. Being vegan also enhanced some participants sense of purpose.

On the other hand, to become vegan was challenging because it necessitated drastically shifting one's philosophical and ethical stance related to the human use of animals. At times this resulted in interpersonal challenges with nonvegans and conflicts with mainstream culture. Gradually relationships tended to improve as participants maintained their veganism. This may be partly attributable to the participants' general strategic approach of being nonconfrontational when interacting with non-vegans.

However, the participants did acknowledge that some vegans, particularly in online settings, can be confrontational and even judgmental towards other vegans. In contrast to this, the participants in this research generally described how they didn't think perfection was achievable in veganism, so they avoided judgement of others and themselves. This may have contributed to the participants being able to maintain their veganism over time.

Veganism: Living without using animals for food, entertainment, clothing, etc.

Participant Quotes

I definitely got some social flack for it, it definitely lost me some friends, it definitely made me some enemies. (Participant I)

Yeah, I mean it is definitely frustrating, or sorta that despair type of feeling, when you try to explain it and people brush it off they don't want to hear about it. They just don't care. Or they are aware of it, they just value their taste-buds more than that life of the animal and the environment as a whole and their own health, as well as, the human rights components. (Participant E)

That there is no one size fits all vegan. That there is not perfect vegan, and also that people are coming to veganism from all different backgrounds, and I think just like anything else, we need to remember that you don't know what someone's going though, so treat people with kindness. And wherever they can meet you at in terms of being vegan or not vegan I think we all just need to be a little bit more compassionate to each other. (Participant K)

But in general, ah, again I think it all boils down to the nice feeling of ah, the nice feeling of thinking that, I took a choice towards something that I think is right. That makes me much more peaceful rather than, rather than before. (Participant N)

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Additionally, the participants identified that they had privileges in life that helped to facilitate and maintain their veganism. Different participants identified different factors, but they included living in a Canadian city, and participant race and/or socioeconomic status.

The participants felt that larger society was more receptive to veganism nowadays, and the participants themselves were open to people engaging with veganism, or plant-based eating, in ways that made the most sense with their personal background and experiences.

As vegans, the participants felt like their experiences and knowledge of food, such as cooking techniques or learning about food from different cultures had improved. The participants enjoyed vegan food.

Importance

While the participants faced some challenges in relation to their veganism, overall, they felt veganism enhanced their wellbeing. The wellbeing benefits reported by participants, suggest that ethical veganism can be health promoting for vegans on multiple levels. This advances the conversation around the potential healthfulness of vegan and plant-based eating as it considers elements of health beyond the physical.

The openness of the participants to eschewing narratives of perfection in veganism, while at the same time not compromising on what a vegan is, may have provided wellbeing benefits and increased the participants' capacity to maintain their veganism. This may be important for both those who promote veganism and plant-based eating, and for vegans themselves. This insight could be applied when working to improve the longevity of an individual's veganism.

The participants identified structural barriers that may limit the ability of people to become vegan, such as geography and socioeconomic status. While the participants were oriented to social and ecological justice, they often framed the choice to be a vegan as something personal and individual. While this respects differences across people, it may also reduce knowledge of injustice in the food system. Greater social acceptance of veganism may help facilitate difficult conversations about privilege, food choice, culture, and wellbeing at different levels including the individual, community, and global.

You know, and nutritional yeast, like who knew, nutritional yeast, that was awesome (laughs). It's taught me a new way of cooking, like it I cook to satisfy more than just our nutritional needs but our love of food more or less. (Participant P)

When we talk about veganism a lot of the time I think of the climate activist situation where, what is it, 10 companies are doing 90% of the harm, but individuals are being asked to do so much themselves. And I'm always of the mindset that if you can do little things, do the little things, like it does not hurt to do those things. But also, I don't feel like you should feel this intense guilt about every single little thing that you do, because you are only one person in the whole equation at the end of the day. (Participant K)

I'm a brown person in a white country now, or a country of immigrants, whatever. Since I am in a country where veganism is accessible, [...] Inclusive, I mean sure there are no barriers based on like race, or gender, or sexual identity anyone can join the movement. It's just how accessible those resources are to you based on your current location I would say. (Participant J)

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Veganism and Connection to Nature



The images above are of the participants' body-maps created in the summer of 2023

Overview

Using **BMST**, a focus group, and interviews, this research explored the participants' experiences with nature. This research addressed two questions:

1. How do ethical vegans with a connection to nature experience the natural world?
2. What connections do ethical vegans make among these experiences, their veganism, and their wellbeing?

Body-map Storytelling (BMST): A research method wherein participants answer questions about their experiences by illustrating, using a variety of art supplies, what they think and feel within their bodies. Participants' life-sized "body-maps" become study data.

Veganism: Living without using animals for food, entertainment, clothing, etc.

Participants

6 participants took part in this research.

- All vegan
  - Ethically motivated
  - Average time vegan ~ 8 years
- All with a strong connection to nature
- 4 women, 2 men
- 4 white, 2 South Asian

Findings

The participants saw themselves as **part of nature**. In some ways this was negative for the participants due to human destruction of nature. In other ways this was positive for participants because it provided **wellbeing benefits**.

The participants felt they had **close relationships** with the natural world. They learned from nature and felt like they were listened to and comforted by nature. The participants sought

> *You know that we're not what*
> *we have been taught to believe,*
> *that we are above nature,*
> *we are superior to nature,*
> *we are that with, we just are a part of it.*
> *We are made up of it.*
> *We are part of it,*
> *we are part of the system.*
> *I love how you, yeah, made yourself*
> *into nature cause that's what we are.*
> *(Participant 3003)*

> *We, as humans,*
> *are giving more importance to our wants*
> *than our needs. (Participant 3001)*

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out nature in real life and in their minds for mental and emotional safety.

The participants stayed vegan to **protect nature**. The participants used veganism and conscious consumer choices to reduce the harm that people contribute to the world.

Due to their vegan philosophy, the participants were **deeply impacted**, both emotionally and mentally by the harms experienced by the natural world.

However, for the participants veganism was a **rewarding journey** that further strengthened their relationships with the natural world and was perceived to yield holistic wellbeing benefits for the both the vegans and nature. The natural world that the participants experienced was one of harmony.

Importance

While veganism and connection to nature enriched the lives of the participants and contributed to their wellbeing, the participants also faced challenges. Knowledge about harm to, and destruction of, nature was distressing to participants and resulted in experiences of emotional upset and solastalgia. However, veganism is a practice that enabled the participants to strengthen their connections to nature and to participate in reducing harm.



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Growing and weaving, rooted, loving, connected and reciprocal relationships with all more-than-human beings. Such as trees, plants, water and non-human animals. (Participant 3006)

I feel like it's very significant because I feel at peace in nature. I feel more at peace just being outside. [...] I just, I feel calm. I don't feel as stressed as I normally do. (Participant 3005)

[...] I do reminisce of the greener, more lush times that it was. Now, some areas are recognizable, but the vast majority are completely urbanized, so don't even recognize the landscape and yeah it tends to, it's a bit sadness, a bit nostalgia (Participant 3004)

I think that now that I am vegan, now that I'm doing the vegan activism. I'm getting more compassion, I am feeling more connected to animals that I haven't um you know met yet, [...] But I'm, I think I'm blossoming into something else. I'm transforming, I'm growing, and broadening. (Participant 3002)

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